



Water Department

**Water Commission Agenda**  
**Regular Meeting**  
**7:00 p.m. – Monday, October 6, 2014**  
**Council Chambers**  
**809 Center Street, Santa Cruz**

**Agenda**

**Call to Order**

**Roll Call**

**Presentation** *Organized groups may make presentations to the Water Commission. Presentations that require more than three minutes should be scheduled in advance with Water Department staff.*

**Statements of Disqualification** *Section 607 of the City Charter states that “...All members present at any meeting must vote unless disqualified, in which case the disqualification shall be publicly declared and a record thereof made.”*

*The City of Santa Cruz has adopted a Conflict of Interest Code, and Section 8 of that Code states that no person shall make or participate in a governmental decision which he or she knows or has reason to know will have a reasonably foreseeable material financial effect distinguishable from its effect on the public generally.*

**Oral Communications** No action shall be taken on this item.

**Announcements** No action shall be taken on this item.

**Approval of Minutes** ☆ (Pages 5-10)

Recommendation: Motion to approve the July 7, 2014 and August 25, 2014 Water Commission Minutes.

**Consent Agenda** (Pages 11-46)

*Items on the consent agenda are considered to be routine in nature and will be acted upon in one motion. Specific items may be removed by members of the advisory body or public for separate consideration and discussion.*

1. City Council Items Affecting Water ☆ (accept info) (Pages 11-14)
2. Water Commission Bylaws Update ☆ (Pages 15-30)
3. Correspondence from Gary Patton dated 8/5/2014 ☆ (accept info) (Pages 31- 46)

**Items Removed from the Consent Agenda**

**General Business** (Pages 47-103)

*Any document related to an agenda item for the General Business of this meeting distributed to the Water Commission less than 72 hours before this meeting is available for inspection at the Water Administration Office, 212 Locust Street, Suite A, Santa Cruz, California. These documents will also be available for review at the Water Commission meeting with the display copy at the rear of the Council Chambers.*

1. Long Term Conservation Master Plan ☆ (Pages 47-70)

Recommendation: That the Water Commission review and comment on City Council Technical Memorandum and recommend Program C<sub>REC</sub> as the Interim Conservation Plan to City Council for public input and adoption.

2. Drought Update ☆ (Pages 71-74)

Recommendation: That the Water Commission recommend City Council adopt a resolution extending the Stage 3 Water Shortage Emergency.

3. System Development Charges Policy Framework Discussion ☆ (Pages 75-103)

Recommendation: Provide input on System Development fee policies, review current fee structure and review potential fee structures suitable for the Santa Cruz Water Department.

**Subcommittee/Advisory Body Oral Reports**

1. WSAC Update (Oral Report)

Recommendation: None. Receive Update Only.

**Director's Oral Report** No action shall be taken on this item.

1. Monthly Status of Water Supply (to be distributed at meeting)

**Documents for Future Meetings** No action shall be taken on this item.

*The following document is being included in this agenda packet in order to provide ample review time. It will be an item of business and will include a staff report at a future meeting.*

**Information Items** No action shall be taken on this item.

1. Work plan for Cost of Service Analysis, Rate Redesign and System Development Charges ☆ (Pages 105-108)
2. Modeling and Forecasting Working Group ☆ (Pages 109-110)

**Items Initiated by Members for Future Agendas**

**Adjournment** The next meeting of the Water Commission is scheduled for November 3, 2014 at 7:00 p.m. in Council Chambers.

☆Denotes written materials included in packet

**APPEALS** - Any person who believes that a final action of this advisory body has been taken in error may appeal that decision to the City Council. Appeals must be in writing, setting forth the nature of the action and the basis upon which the action is considered to be in error, and addressed to the City Council in care of the City Clerk.

Other - Appeals must be received by the City Clerk within ten (10) calendar days following the date of the action from which such appeal is being taken. An appeal must be accompanied by a fifty dollar (\$50) filing fee.

The City of Santa Cruz does not discriminate against persons with disabilities. Out of consideration for people with chemical sensitivities, please attend the meeting fragrance free. Upon request, the agenda can be provided in a format to accommodate special needs. Additionally, if you wish to attend this meeting and will require assistance such as an interpreter for American Sign Language, Spanish, or other special equipment, please call Water Administration at 831-420-5200 at least five days in advance so that arrangement can be made. The Cal-Relay system number: 1-800-735-2922.

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Water Department

**Water Commission  
Draft**  
7:00 p.m. - Monday, July 7, 2014  
Council Chambers  
809 Center Street, Santa Cruz

### **Minutes of a Water Commission Meeting**

**Call to Order** –Chair Baskin called the meeting to order at 7:01 p.m. in the City Council Chambers.

#### **Roll Call**

**Present:** D. Baskin (Chair), A. Schiffrin, D. Schwarm, D. Stearns, W. Wadlow (Vice-chair), and L. Wilshusen.

**Absent:** G. Mead (with notification)

**Staff:** R. Menard, Water Director; N. Dennis, Principal Management Analyst; E. Cross, Community Relations Specialist; T. Goddard, Administrative Service Manager; G. Rudometkin, Administrative Assistant III.

**Others:** Approximately 6 members of the public.

**Presentation** – There were no presentations.

**Statements of Disqualification** –There were no statements of disqualification.

**Oral Communications** – There were no oral communications.

**Announcements** – There were no announcements.

#### **Approval of Minutes**

Commissioner D. Stearns moved approval of June 2, 2014 Water Commission minutes. Commissioner D. Schwarm seconded.

#### **VOICE VOTE: MOTION CARRIED**

**AYES:** D. Baskin, D. Schwarm, D. Stearns, W. Wadlow, and L. Wilshusen.

**NOES:** A. Schiffrin, let the record reflect that I voted no because in my view the current format of the minutes denies the public any information regarding the content of testimony from either members of the public or the commission except by its indirect approach.

**ABSTAINED:** None

#### **Consent Agenda**

1. City Council Items Affecting Water

Commissioner A. Schiffrin moved approval of the Consent Agenda as submitted.  
Commissioner L. Wilshusen seconded.

**VOICE VOTE: MOTION CARRIED**

**AYES:** D. Baskin, A. Schiffrin, D. Schwarm, D. Stearns, W. Wadlow, and L. Wilshusen.

**NOES:** None.

**Items Removed from the Consent Agenda** No items were removed.

**General Business**

1. Rate Increase and Drought Cost Recovery Recommendations

Presentation provided by Water Director, R. Menard; Principal Management Analyst, Nicole Dennis; and Sanjay Gaur of Raftelis Consulting and responded to Commission questions.

Public Comment: Oral communications made by P. Gratz, R. Pomerantz, D. Speltz, and A. Rosell.

Commissioner A. Schiffrin moved the motion as recommended by staff that the Water Commission forwards the following recommendations to the City Council:

1. Recommend the City Council schedule a Public Hearing on the proposed water rate increases to occur on September 9, 2014 in accordance with Proposition 218.
2. Recommend to the City Council institute a 10% water rate increase, to commence on October 1, 2014. Also, recommend a 10% rate increase implemented on July 1 for the each of the next four fiscal years.
3. Recommend to the City Council to assess a drought recovery fee designed to recover \$3.25 million over two years; \$2.25 million in FY 2015 and \$1 million in FY 2016.
4. Recommend to the City Council levy the drought recovery fee on the ready-to-serve (fixed) portion of the water bill.
5. Recommend to the City Council establish two additional reserve funds on behalf of the Water Department. The first fund recommended is a 90-Day Operating Reserve and the second, an Emergency Reserve Fund in addition to the existing Water Rate Stabilization Fund.

The Water Commission recommends these actions to the City Council for their consideration in order to maintain, protect, and ensure the delivery of clean drinking water to the customers, residents and visitors of the City's water system over the next five

years. A request was made that at a subsequent meeting Water Commissioners receive a detailed update on cost allocations and a timeframe to analysis.

Commissioner A. Schiffrin would also like to add that the Water Commissioners receive a detailed work plan update at a subsequent meeting on the cost allocations and rate redesign plan with a timeframe for implementing that analysis and those changes. The motion is also to include Commissioner L. Wilshusen's addition that the proposed rate chart with a 100% fixed drought recovery fees be included for both city residents and non-city residents.

Commissioner L. Wilshusen added to the motion the following: the total dollar amount of Drought Cost Recovery Fee to be levied shall be aligned to the level of water shortage emergency declared by the City Council. Commissioner A. Schiffrin added to the motion the following: the drought cost recovery fee should be added to the Proposition 218 public notice.

VOICE VOTE: MOTION CARRIED

AYES: D. Baskin, A. Schiffrin, D. Schwarm, D. Stearns, W. Wadlow, and L. Wilshusen.

NOES: None.

2. Water Commission Bylaws/Minutes Update

Public Comment: None

Commissioner L. Wilshusen moved that the Commission create a subcommittee appointing D. Stearns, D. Baskin, and A. Schiffrin to address the Water Commission Bylaws. Commissioner A. Schiffrin seconded.

VOICE VOTE: MOTION CARRIED

AYES: D. Baskin, A. Schiffrin, D. Schwarm, D. Stearns, W. Wadlow, and L. Wilshusen.

NOES: None.

**Subcommittee/Advisory Body Oral Reports** No items.

1. WSAC Update

**Director's Oral Report** No action shall be taken on this item.

1. Monthly Status of Water Supply

**Documents for Future Meetings** No action shall be taken on this item.

1. None

**Items Initiated by Members for Future Agendas**

**Adjournment** Meeting adjourned at 9:28pm the next meeting of the Water Commission is scheduled for August 25, 2014 at 7:00 p.m. in Council Chambers.

Respectfully submitted,

Gloria  
Rudometkin

Digitally signed by Gloria Rudometkin  
DN: cn=Gloria Rudometkin, o=City of  
Santa Cruz, ou=Water,  
email=grudometkin@cityofsantacruz.c  
om, c=US  
Date: 2014.02.10 09:12:05 -08'00'

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Staff





Water Department

**Water Commission  
Draft  
7:00 p.m. – Monday, August 25, 2014  
Council Chambers  
809 Center Street, Santa Cruz**

### **Minutes of a Water Commission Meeting**

#### **Roll Call**

**Present:** D. Baskin (Chair), A. Schiffrin, and D. Stearns.  
**Absent:** L. Wilshusen, G. Mead and D. Schwarm and W. Wadlow (Vice-Chair)  
(with notification).  
**Staff:** R. Menard, Water Director; T. Goddard, Water Conservation Manager; N. Dennis, Principal Management Analyst; G. Rudometkin, Administrative Assistant III.  
**Others:** 0 members of the public.

**Adjournment** **Due to a lack of quorum the meeting adjourned** at 7:15 p.m., the next meeting of the Water Commission is scheduled for October 6, 2014 at 7:00 p.m. in Council Chambers.

Respectfully submitted,

Gloria  
Rudometkin

Digitally signed by Gloria Rudometkin  
DN: cn=Gloria Rudometkin, o=City of  
Santa Cruz, ou=Water,  
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om, c=US  
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Staff

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## WATER COMMISSION REPORT

DATE: September 22, 2014  
TO: Water Commission  
FROM: Rosemary Menard  
Water Director  
SUBJECT: City Council Items Affecting Water

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### **City Council Meeting of July 8, 2014:**

#### Transfer of funds from the Water Rate Stabilization Reserve Fund to the Water Enterprise Fund - Budget Adjustment (WT)

**Resolution** appropriating up to \$2.4 million available in the Water Rate Stabilization Reserve Fund to the Water Department Enterprise Fund for FY 2015 to help address the financial impacts of Stage 3 Water Rationing in accordance with City Council Policy 34.4.

**Motion** to suspend the section of City Council Policy 34.4 which requires a surcharge of \$0.10 charge per CCF (100 cubic feet) of non-lifeline water sold in the service area.

#### Grant Application to the California State Department of Water Resources – 2014 Integrated Regional Water Management Drought Grant Solicitation (WT)

**Resolution** authorizing the City Manager to submit a grant application in coordination with the Regional Water Management Foundation, for the 2014 Integrated Regional Water Management Drought Grant Solicitation offered by the State of California Department of Water Resources; and if selected, accept the funds and execute all standard agreements for such funds and any amendments thereto, and any other documents necessary to secure the grant funds, in a form acceptable to the City Attorney and necessary to participate in the program.

#### Beltz Reclaim Tank Replacement Project – Notice of Completion (WT)

**Motion** to accept the work of Monterey Peninsula Engineering, Inc., (Monterey, CA) as complete per the plans and specifications and authorize the filing of a Notice of Completion for the Beltz Reclaim Tank Replacement Project.

#### Resolutions Amending the Water Department's FY 2014 and FY 2015 Budgets Appropriating Additional Funds from the Water Enterprise Fund (Fund 711) and Water System Development

Charges Fund (Fund 715) for Expenses Related to Drought and the Capital Budget - Budget Adjustments (WT)

**Resolution** authorizing the transfer and appropriating funds in the FY 2014 Budget from the Water Enterprise Fund balance to cover costs related to the implementation of drought-related programs.

**Resolution** authorizing the transfer and appropriating funds in the FY 2015 Budget from the Water Enterprise Fund balance to cover costs related to the implementation of drought-related programs and add funding to the Water Department's Capital Improvement Program for the Materials Storage Roof Project.

**City Council Meeting of July 22, 2014:**

Integrated Regional Water Management Plan Update (WT/PW)

**Resolution** adopting the 2014 Update of the Santa Cruz Integrated Regional Water Management Plan.

Conditions Assessment and Structural Evaluation of Concrete Tanks – Award of Contract (WT)

**Motion** to accept the proposal of Kennedy/Jenks Consultants (San Francisco, CA) for Conditions Assessment and Structural Evaluation of Concrete Tanks in the amount of \$256,652 and to authorize the City Manager to execute an agreement in a form acceptable to the City Attorney, and reject all other proposals.

Contract Approval with Miller/Maxfield (WT)

**Motion** to approve and authorize the City Manager to execute Contract Amendment No. 3, in a form approved by the City Attorney, with Miller Maxfield, Inc. in the amount of \$82,000 for continued communications services including various media, outreach and graphic support.

Water Shortage Emergency Status Report (WT)

**Motion** to accept a status report on the City of Santa Cruz's ongoing Water Shortage Emergency and implementation of the water shortage regulations and restrictions, and provide input and direction to staff, as appropriate.

User Charges for Water Services - Proposed Five Year Increase, Drought Cost Recovery Fee, and Drought Cost Recovery Fee Schedule (WT)

**Motion** to set a public hearing on the proposed increase of water use rates, the drought cost recovery fee, and the drought cost recovery fee schedule for September 23, 2014 and approve mailing of written notices, substantially in the form of the attachment, to water service customers regarding the proposed increases and the planned public hearing.

**City Council Meeting of September 9, 2014:**

Water Supply Advisory Committee Second Status Report and Community Survey Proposal (CN)

**Motion** to accept the progress report from the Water Supply Advisory Committee on its work to date and outreach and community engagement plans, authorize the proposed plan for conducting a community attitudinal survey, and provide feedback to the WSAC and staff, as appropriate.

**City Council Meeting of September 23, 2014:**

Adopt Resolution Adjusting Water Rates and Charges, Monthly Ready-to-Serve Charges Beginning on October 1, 2014 for Five Consecutive Years, Establishing Drought Cost Recovery Fees and a Mechanism to Levy the Drought Cost Recovery Fees and Approve a Work Plan for Reviewing and Revising Fees (WT)

**Resolution** rescinding portions of Resolution No. NS-26,803 and adjusting Water Rates and Charges, Monthly Ready-to-Serve Charges beginning on October 1, 2014 for five consecutive years, establishing Drought Cost Recovery Fees and a mechanism for levying the Drought Cost Recovery Fee in the future if and as needed and as authorized by the Santa Cruz City Council. Motion to approve the Fee and Rate Issue Work Plan for reviewing and revising Water System Development Charges, conducting a cost of service analysis and reviewing and redesigning water rate structures.

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## WATER DEPARTMENT MEMORANDUM

DATE: October 2, 2014

TO: Water Commissioners

FROM: Rosemary Menard  
Water Director

SUBJECT: Bylaws Subcommittee

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**RECOMMENDATION:** Water Commission review and provide input on the attached edited bylaw amendments which comprises the direction that will be presented to City Council at a future meeting.

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**BACKGROUND/DISCUSSION:** At the Water Commission meeting held on July 7<sup>th</sup>, 2014 it was voted on that the Commission would create an ad hoc subcommittee in order to review and amend the current Water Commission bylaws. This subcommittee consists of the following Water Commissioners: David Baskin (chair), Andy Schiffrin, and David Stearns. On the 15<sup>th</sup> of August the subcommittee met with Water Director, Rosemary Menard to go over a series of edits made to the bylaws, it was at this meeting that revisions were agreed upon and the proposed changes were sent to the City Attorney for review.

These revisions have been reviewed and approved by the City Attorney and is being presented to the full Water Commission for review and input. Once approved the Water Department will take the revised bylaws to a future City Council meeting for approval.

**Possible Motion:**

1. Approve the proposed bylaw amendments by the subcommittee and city staff in order to present these changes before Council at a future meeting.

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BYLAWS

Of  
the

Water Commission  
City of Santa Cruz, California

Under authority of applicable statutes of the State of California, and the City Charter of the City of Santa Cruz, California, for the purpose of establishing rules and regulations governing the organization and procedures of the Water Commission of the City of Santa Cruz, CA

Adopted June 27, 1977

Amended May 26, 1992

Amended May 5, 2003

Amended August 25, 2014

Approved by City Council on \_\_\_ of October, 2014

# Water Commission Bylaws

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## **Water Commission Bylaws**

### **ARTICLE I – NAME AND/OR AUTHORITY**

The Name of this organization shall be the Water Commission of the City of Santa Cruz, California; hereinafter referred to as the Advisory Body.

### **ARTICLE II – PURPOSE**

The Water Commission will act in an advisory capacity to the City Council in all matters pertaining to the Santa Cruz water system and the maintenance and management thereof.

### **ARTICLE III – DUTIES AND RESPONSIBILITIES**

The Water Commission shall have the ability, as vested by the City Council, and be required to:

- Recommend to the City Council, after public input, the adoption, amendment or repeal of ordinances relating to Chapter 16 Water, Sewers and other Public Services of the Santa Cruz Municipal Code;
- Make recommendations concerning proposed annual Water Department budget, Capital Improvement Program, Water Rate Resolutions and Water Resale Applications;
- Undertake studies and make recommendations in the area of Water Conservation and Water Supply Planning;
- Act in an advisory capacity to the City Council in all matters pertaining to the Santa Cruz water system and the maintenance and management thereof;
- Review and make recommendations to the City Council pertaining to the improvement and extension of the water system of the City, including sources, storage, quality, transmission and distribution of water to the inhabitants, and all subjects related thereto, including estimated costs of carrying out such recommendations;
- Review, monitor, and make long-range recommendations concerning securing sources of domestic water supply for the City; including re-examination of prior reports thereon to ascertain the value thereof if any at this time;
- Receive complaints pertaining to the Santa Cruz water system;
- Perform other duties as may from time to time be prescribed by the City Council.

### **ARTICLE IV – MEMBERSHIP**

#### **Section 1. Membership**

The Water Commission shall consist of seven Water Commissioners, hereinafter referred to as members.

Membership, term of office, and procedures for removal of members and the filling of vacancies shall be as established by City Ordinance or by the City Council.

## Section 2. Qualifications

The Water Commission shall be comprised of seven members. Six members of the water commission shall be qualified electors of the city, and one member shall be a qualified elector of the county who resides outside of the city limits but within the city's water service area. (Ord. 2003-32 § 1, Ord. 2000-08 § 1, 2000: Ord. 92-26 § 1, 1992; Ord. 87-10 § 1 (part), 1987).

## Section 3. Application for Membership

Prospective members shall file an application in the office of the City Clerk.

## Section 4. Method of Appointment

Each City Resident member shall be appointed by motion of the City Council adopted by at least four affirmative votes. The non-resident member shall be appointed by a four-member majority of the city council and nominations for that appointment may be made by any Councilmember.

## Section 5. Good Standing and Reporting of Absences

Absences will be identified as “with notification” and “without notification.” An absence is considered as “with notification” if the member notifies the Staff or the Chair prior to a regular or special meeting. If there has been no prior notification, the absence is considered “without notification.”

Each member is allowed three absences with notification per calendar year. Should a member exceed the allowed absences from regular and special meetings, Staff shall notify the City Clerk. Excessive absences shall result in termination of membership. A leave of absence, approved by the City Council according to Council Policy is not subject to termination.

## Section 6. Termination

Each member shall be subject to removal by motion of any Councilmember, adopted by at least four affirmative votes.

# ARTICLE V – TERM OF OFFICE

## Section 1. Term

The term of office for each member shall be one four-year term. A member may be appointed to complete an unexpired term. A member may continue to serve until his/her successor has been appointed.

## Section 2. Membership Year

A membership year shall be from February 1st to January 31st of each year.

## Section 3. Length of Term

A member shall not serve more than two consecutive full four-year terms. Upon completion of a member's eighth consecutive year of service, that member will be ineligible for reappointment for a period of two years. Upon completion of a member's second full four year term, that member will be ineligible for reappointment for a period of two years.

## Section 4. Dual Service

No member shall be eligible to serve on two Advisory Bodies unless one is established for less than 13 months. [Members of the Commission may serve for more than 13 months, if necessary, on advisory bodies whose charge is directly related to their service on the Water Commission when appointed to do so by the City Council.](#)

## **ARTICLE VI – OFFICERS AND ELECTIONS**

### **Section 1. Officers**

Officers of the Advisory Body shall consist of a Chair and Vice Chair.

### **Section 2. Election of Officers**

As soon as is practicable following the first day of February of every year, there shall be elected from among the membership of the Advisory Body a Chair and Vice Chair.

### **Section 3. Term of Office**

The term of office for the Chair and Vice Chair is one calendar year. Officers may not serve in the same position for more than two consecutive years.

### **Section 4. Nominations**

The Chair will open the floor to nominations. Any member may nominate a candidate from the membership for the position of Chair or Vice Chair; nominations need not be seconded.

A member may withdraw his/her name if placed in nomination, announcing that, if elected, s/he would not be able to serve; but s/he shall not withdraw in favor of another member.

Once the nominations are complete, the Chair will ask for a motion to close the nominations; a second of, and vote on, the motion is required.

The Chair then declares that it has been moved and seconded that the nominations be closed, and the members proceed to the election.

### **Section 5. Voting**

Voting may be by voice vote or by roll call vote.

The candidate who receives a majority of the votes is then declared to be legally elected to fill the office of Chair, and will immediately chair the remainder of the meeting.

The same procedure is followed for the election of Vice Chair.

### **Section 6. Vacancy of an Officer**

Should a vacancy occur, for any reason, in the office of Chair or Vice Chair prior to the next annual election, a special election shall be held to fill the vacant office from among the membership. That member shall serve until a new appointment has been made.

### **Section 7. Removal of Elected Officers**

The Chair or Vice Chair may be removed by a majority vote of the full Advisory Body at a regularly scheduled meeting of the Advisory Body, when all appointed members are present, or at a special meeting convened for that purpose at which a quorum is present. Any officer removed ceases to hold the office once the vote has been tallied and announced. If the Chair is removed, the Vice Chair shall become the new Chair. An election for the Vice Chair shall then be agendized for the next meeting.

### Section 8. Duties of the Chair

The Chair shall preside at all regular meetings and may call special meetings. The Chair shall decide upon all points of order and procedure during the meeting; his/her decision shall be final unless overruled by a vote of the Advisory Body, in compliance with Article IX, Section 2, "General Conduct of Meetings." The Chair may not make motions, but may second motions on the floor. The Chair acts as primary contact for staff and shall represent the Advisory Body before City Council whenever the Advisory Body or Council considers it necessary unless another member(s) is (are) appointed by the Advisory Body. The Chair and staff shall jointly set the meeting agenda.

### Section 9. Duties of the Vice Chair

The Vice Chair shall assume all duties of the Chair in the absence or disability of the Chair.

### Section 10. Duties of the Acting Chair

In case of absence of both the Chair and the Vice Chair from any meeting, an Acting Chair shall be elected from among the members present, to serve only during the absence of the Chair and Vice Chair.

## **ARTICLE VII – STAFF SUPPORT**

### Section 1. Staff

Staff support and assistance is provided, but advisory bodies do not have supervisory authority over City employees. While they may work closely with advisory bodies, staff members remain responsible to their immediate supervisors and ultimately to the City Manager and Council.

The Director of the Water Department shall designate appropriate staff to act as staff person(s) to assist and support the Advisory Body. Staff shall attend all regular and special Advisory Body meetings. Staff shall be responsible for coordination of such reports, studies, and recommendations as are necessary to assist the Advisory Body in the conduct of its business according to City Council policy and the Brown Act. Staff may enlist the assistance of other departments as required. Staff shall be responsible for all public notification regarding all regular and special Advisory Body meetings.

Staff shall record the minutes of the meetings in accordance with [these bylaws](#). ~~the guidelines established in the "Preparation of Minutes" section of the City Councilmembers' Handbook.~~ Staff shall supervise volunteers and interns, shall work closely with the Chair between meetings, shall make recommendations, prepare reports and proposals to the Advisory Body, may represent the Advisory Body at other meetings, presentations, and other public functions as requested, and shall perform administrative tasks.

Staff shall be responsible for the maintenance of proper records and files pertaining to Advisory Body business. Staff shall receive and record all exhibits, petitions, documents, or other materials presented to the Advisory Body in support of, or in opposition to, any question before the Advisory Body. Staff shall sign all notices prepared in connection with Advisory Body business, shall attest to all records of actions, transmittals, and referrals as may be necessary or required by law, and shall be responsible for compliance with all Brown Act postings and noticing requirements.

## Section 2. Staff Relationship to the Advisory Body

Given limited staff resources, the Chair or individual members shall not make separate requests of staff without approval of the Advisory Body. If a member has a research or report request, it shall be brought to the Advisory Body for discussion, consideration, and recommendation prior to making the request of staff. If not approved by the Advisory Body, the individual member shall be responsible for his/her own research or report.

~~Staff and the Chair shall jointly set the meeting agenda.~~

## ARTICLE VIII – MEETINGS

### Section 1. Time and Location of Meetings

The Advisory Body will hold its regular meeting on the first Monday of each month, which shall begin at 7:00 p.m. in the City Council Chambers and will adjourn no later than 11:00 p.m., unless the Chair, with concurrence of the Advisory Body, extends the time of adjournment.

If the scheduled date for a regular meeting falls on a holiday, such meeting shall be rescheduled in accordance with Council policy.

### Section 2. Cancellation

If a majority of the membership deems it necessary or desirable, a scheduled regular meeting may be cancelled or rescheduled upon giving notice, unless a public hearing has previously been noticed.

### Section 3. Special Meetings

The Chair of the Advisory Body, staff, or a majority of the membership of the Advisory Body may call a special meeting. Notice of such meeting shall state the purpose or the business to be transacted during such special meeting. No other business may be transacted at such special meeting other than as stated in the notice. Oral Communications are not required at special meetings as long as a statement appears on the agenda identifying that there will be no Oral Communications, but that members of the public will have the opportunity to address the Advisory Body on item(s) on the agenda.

## ARTICLE IX – CONDUCT OF MEETINGS

### Section 1. Compliance with the Brown Act and Council Policies

All regular, special, and adjourned meetings of the Advisory Body shall be open meetings to which the public and the press shall be admitted in compliance with the Brown Act. Meetings will be held at City facilities that which are accessible to persons with disabilities. The public shall have the opportunity to speak on any item on the agenda. During oral communications, the public may speak on any water related matter not on the agenda. Comments shall be limited to three minutes for any speaker unless the chair decides otherwise.

### Section 2. General Conduct of Meetings

Points of order and conduct, including those not addressed by these Bylaws, shall be settled by the Chair, unless overruled by a majority vote of the Advisory Body. Points of order and conduct shall comply with the Brown Act, these Bylaws, and the City Councilmembers' Handbook. The Chair will consult with staff as necessary. Unresolved issues shall be referred to the City Attorney and continued to a future meeting.



### Section 3. How Items Are Placed on the Agenda

A request to have an item placed for consideration on a future agenda may be made by staff, any Advisory Body member or a member of the public. The Chair and staff will consider the validity (within the approved scope of work) and urgency of the request and determine when and if that item should be placed on an Advisory Body agenda. Issues can be referred to an advisory body by the City Council and may have time sensitive deadlines. The items must comply with the procedures in Article XII, Section 1, “Agenda Reports to Advisory Body.”

### Section 4. Quorum

A quorum of the Water Commission shall consist of four (4) members, whether or not there are vacancies on the Advisory Body.

### Section 5. Absence of a Quorum

In the absence of a quorum at any meeting, such meeting shall be adjourned to the next regular meeting date by the Chair, Vice Chair, or staff.

A meeting may be declared adjourned for lack of a quorum after a 15-minute period has elapsed from the scheduled time of the start of the meeting. A meeting may also be declared adjourned in advance, if absence notifications received by staff provided for lack of a quorum. Adjournment may be declared by any member or staff.

### Section 6. Agenda

The Chair and staff shall jointly set the meeting agenda and its format shall generally conform to the template provided in the Handbook for City Advisory Bodies set by Council Policy.

### Section 7. Order of Business

The Chair or a majority vote of the Advisory Body may change the order of business.

## **ARTICLE X – MOTIONS**

### Section 1. Call for Motion

Upon conclusion of preliminary discussion, any member other than the Chair may place a motion on the floor. The motion shall contain the proposed action.

### Section 2. Seconding a Motion

The Chair shall receive all motions and shall call for a second to each motion. The Chair may second a motion.

### Section 3. Lack of a Second

If, after a reasonable time, no second has been made, the motion shall be declared dead for lack of a second, and the Chair shall state this. This shall not be considered an action of the Advisory Body and shall not be included in the minutes.

### Section 4. Discussion/Debate

After a motion has been made and seconded, the Chair shall call for a discussion of the question. All discussion shall be limited to the motion on the floor. At the close of the discussion, the Chair shall put the matter to a vote.

### Section 5. Time Limits on Discussion/Debate

The Chair may, at his/her discretion, limit debate of any motion; except that each member shall have the opportunity to speak.

### Section 6. Amending a Motion

A motion to amend may be made by any member to revise a motion on the floor; but it cannot be a freestanding motion on its own, nor can it substitute for a main motion. The motion to amend must be voted upon, unless the maker and the second accept it as a friendly amendment, and, if it passes, it then becomes part of the main motion.

### Section 7. Withdrawing a Motion

Any motion may be withdrawn by the maker and the second and shall not be included in the meeting minutes.

### Section 8. Motion to Table

A motion to table may be made to suspend consideration of an item that appears on a meeting agenda for reasons of urgency or to end an unproductive discussion. A motion to table is not in order when another member has the floor. A motion to table requires a second, is not debatable, is not amendable, requires a majority vote for passage, and, if adopted, cannot be reconsidered at the meeting at which it is adopted. Members will refrain from using a motion to table as a means of capriciously limiting debate among members, to suppress a minority of the Advisory Body, or to avoid public input on an agenda item under consideration by the Advisory Body.

### Section 9. Results of Voting

~~The Chair shall state the results of each vote, e.g., “The motion passes by a vote of five to two.” Except in the case of unanimous votes, the chair shall state the results of a vote by providing the names of the Commissioners voting for and those voting against.~~

## ARTICLE XI – VOTING

### Section 1. Statements of Disqualification

Section 607 of the City Charter states that “...All members present at any meeting must vote unless disqualified, in which case the disqualification shall be publicly declared and a record thereof made.” No member may abstain from voting on any item, except on the approval of the minutes, when that member was absent.

The City of Santa Cruz has adopted a Conflict of Interest Code, and Section 8 of that Code states that “no person shall make or participate in a governmental decision which s/he knows or has reason to know will have a reasonably foreseeable material financial effect distinguishable from its effect on the public generally.”

Any member who has a disqualifying interest on a particular matter shall do the following:

- 1) Publicly identify the financial interest that gives rise to the conflict of interest or potential conflict of interest in detail sufficient to be understood by the public, except that disclosure of the exact street address of a residence is not required;
- 2) Recuse himself or herself from discussing and voting on the matter, or otherwise acting in violation of government code Section 87100;

- 3) Leave the room until after the discussion, vote, and any other disposition of the matter is concluded unless the matter has been placed on the portion of the agenda reserved for uncontested matters;
- 4) Notwithstanding paragraph 3, a public official may speak on the issue during the time that the general public speaks on the issue.

Any question regarding conflicts of interest shall be referred to the City Attorney.

#### Section 2. Voice Vote

All questions shall be resolved by voice vote. Each member shall vote “Aye” or “No” and the vote shall be so entered into the minutes, noting the vote of each member. A member may state the reasons for his or her vote, which reasons shall also be entered into the minutes of the meeting. All members including the Chair shall vote on all matters, except where s/he has a disqualifying interest.

#### Section 3. Roll Call Vote

Any member may request a roll call vote, either before or immediately after a voice vote. A roll call vote shall be taken without further discussion. The Advisory Body staff shall call the roll and each member shall state his/her vote for the record.

#### Section 4. Sealed Ballot Votes

No Advisory Body shall take a sealed ballot vote in open session.

#### Section 5. Adoption of

Adoption of a motion shall be made by a simple majority of the members present, except as otherwise provided. The Chair shall restate the vote for the record, e.g., “The motion is approved by a vote of five to two.”

#### Section 6. Tie Votes

Tie votes will be resolved as follows:

**Full Commission Attendance (7 members):** A vote resulting in a tie when the full commission is in attendance shall constitute a defeat of the motion.

**Statement of Disqualification:** A tie vote resulting from a Statement of Disqualification of one or more members, with no members absent and no vacancies on the Advisory Body, shall constitute a defeat of the motion.

**Absence:** A tie vote during the absence of one or more members, or when there is a vacancy on the Advisory Body, shall cause the item to be automatically continued to the next meeting; except that, as to matters on which action must be taken on a date prior to the next meeting, a tie vote shall constitute a denial of the requested action.

**Successive Tie Vote:** A tie vote at the next meeting on a matter that has been continued as a result of a tie vote shall constitute a denial of the appeal or defeat of the motion.

## ARTICLE XII – REPORTS

### Section 1. Agenda Reports to Advisory Body

All agenda items require a written report. Written reports serve as the analysis, detail, history, and justification for each agenda item. Reports shall include recommendation(s) and background. If a report is initiated by an Advisory Body member, a draft of that report shall be provided to staff for formatting at least five (5) business days prior to the meeting. Staff shall then format reports to be consistent with content, style, and formatting of City Council agenda reports. Items initiated by a committee shall be processed in the same manner. Draft reports not submitted in a timely manner shall be placed on a future agenda.

### Section 2. Committee Reports

Committee reports may be verbal or written and may be accompanied by written documentation.

### Section 3. Preparation of Advisory Body-Generated City Council Agenda Reports

All resolutions and recommendations adopted by the Advisory Body and addressed to the City Council shall be delivered to the Mayor as soon as possible. If the action requests City Council action, the item shall be placed on a future City Council agenda. Agenda reports to the City Council from the Advisory Body shall be written reports consistent with content, style, and formatting of City Council agenda reports.

Additionally, the agenda report shall include a section called analysis, which includes the pros, cons, and foreseeable consequences of the recommendation(s). In the event that staff and the Advisory Body disagree, an analysis of both recommendations shall be included.

## ARTICLE XIII – RECORD KEEPING

### Section 1. Maintenance of Records

All records shall be maintained according to the City of Santa Cruz Records Retention Schedule.

### ~~Section 2. Action Agenda~~

~~Action agendas are required for Advisory Bodies with direct City Council appointments. An action agenda is an unofficial record of the meeting and shall consist of attendance; motion-maker and seconder of the motion; and an actual tally of the votes for all actions taken. The action agenda shall be made available to the Advisory Body, the City Clerk, and Staff within four working days of the meeting.~~

### Section 3. Minutes

~~Action only minutes will be produced for all Advisory Body meetings in the same format as that used for City Council meetings. Minutes shall briefly summarize comments made by members of the public and the Commission as well as actions taken by the Commission. ‘For the record’ statements may be made by Commissioners when she/he desires that specific language be included in the minutes. Advisory Body members who want a particular comment included in the minutes must state “for the record” before making such comment.~~ Minutes shall be reviewed, corrected as appropriate, and or amended and approved by the Advisory Body at a subsequent meeting.

Subcommittee reports presented orally in a meeting shall be summarized in the minutes.

#### Section 4. Audio and Video Recording of Meetings

Proceedings for all Advisory Body meetings shall be recorded on audiotapes whenever possible. The audiotapes shall be retained for one year pursuant to the City of Santa Cruz Records Retention Schedule.

As appropriate and/or when requested by the Advisory Body or City Council, a meeting of the Advisory Body may be video recorded or televised.

Members of the public have the right to make recordings of a meeting without disrupting the proceedings under any circumstances.

### **ARTICLE XIV – COMMITTEES**

#### Section 1. Ad Hoc Committees

Ad hoc committees are established by an Advisory Body to gather information or deliberate on issues deemed necessary to carrying out the functions and purpose of the Advisory Body. Ad hoc committees generally serve only a limited or single purpose, are not perpetual, and are dissolved once their specific task is completed. An ad hoc committee shall be less than six months in term and shall have fewer members than a simple majority of the membership of the appointing Advisory Body. Ad hoc committees shall bring back information to the Advisory Body in either oral or written form.

Following ad hoc committee input, the Advisory Body shall then discuss, deliberate, and make recommendations on the designated issue, thereby providing the public with the opportunity to participate in the decision-making process. This shall take place in the presence of a quorum of the Advisory Body at a properly noticed public meeting.

Ad hoc committees shall not be subject to the Brown Act. City staff shall not be required to be present at ad hoc committee meetings. All ad hoc committees shall provide a final report to the Advisory Body in lieu of minutes.

#### Section 2. Standing Committees

Standing committees are bodies established to gather information or deliberate on issues deemed necessary to carrying out the functions and purpose of the Advisory Body. Standing committees are ongoing in nature and are created to deal with issues and make decisions on behalf of the Advisory Body. The public has a right to participate in this process. Standing committees are subject to the Brown Act and staff will provide only such support as to ensure such compliance.

#### Section 3. Staff Support to Committees

City staff shall normally not be required to attend or provide support for standing or ad hoc committee meetings, unless directed by the department head. All ad hoc committees shall provide a final report to the Advisory Body in lieu of minutes. All standing committees shall provide reports, no less than quarterly, to the Advisory Body.

#### Section 4. Appointments

The Chair of the Advisory Body may designate or solicit participation for standing and ad hoc committees, unless overruled by a majority vote of the Advisory Body.

### Section 5. Committee Meetings

All standing or ad hoc committee meetings shall be held upon call of the Committee Chair.

### **ARTICLE XV – AMENDMENTS**

A majority of the full membership of the Advisory Body may amend these bylaws, subject to the approval of the City Council.

### **ARTICLE XVI – ADOPTION OF BYLAWS**

Immediately upon favorable vote of not less than four 4) of the full membership of the Water Commission the City of Santa Cruz and approval of the City Council, these Bylaws shall be in full force and effect. Any and all previously adopted bylaws are hereby superseded.

These Bylaws shall not be considered or construed as superseding any ordinance or directive of the City Council of the City of Santa Cruz, nor shall they preclude the preparation and adoption of further procedural manuals and policies by which the Advisory Body may direct its activities.

## Gloria Rudometkin

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**Subject:** FW: Community Water Coalition Comments on Grand Jury Report  
**Attachments:** CWC Response to Grand Jury.pdf; ATT00001.htm

**From:** Gary Patton [<mailto:gapatton@icloud.com>]  
**Sent:** Friday, August 01, 2014 1:40 PM  
**To:** Renee Coletta; Gloria Rudometkin  
**Cc:** Martin Bernal  
**Subject:** Community Water Coalition Comments on Grand Jury Report

To: City Water Director and City Water Commission

I am enclosing materials prepared by the Community Water Coalition, in response to the Grand Jury's Report on Desalination. I would appreciate it if you would make sure that all members of the Commission, and the Water Director, do receive a copy of these comments. The CWC hopes that the City will take its comments seriously as the City develops its own response to the Grand Jury.

Gary A. Patton, Attorney at Law  
P.O. Box 1038  
Santa Cruz, CA 95061  
Telephone: 831-332-8546  
Email: [gapatton@gapattonlaw.com](mailto:gapatton@gapattonlaw.com)  
Website: [www.gapatton.net](http://www.gapatton.net)

# Community Water Coalition

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Post Office Box 1038, Santa Cruz, CA 95061

Email: Water\_CWC@yahoo.com

Telephone: 831-332-8546

August 1, 2014

To: The Following Agencies And Advisory Bodies:

- (1) The Santa Cruz City Council
- (2) The City of Santa Cruz Water Commission
- (3) The Board of Directors of the Soquel Creek Water District
- (4) The Basin Implementation Group for the Purisima Groundwater Basin

The Community Water Coalition (CWC) is a group of residents and businesses within the City of Santa Cruz Water Service Area dedicated to ensuring adequate water supplies for current customers within the Water Service Area, while maintaining a healthy environment. Established in 2008, the CWC has been deeply involved since that time in virtually all of the water policy issues that will so profoundly affect the future of Santa Cruz County.

The CWC hopes that you will review and take seriously our attached letter. Each of the above listed agencies has been directed by the 2013-2014 Grand Jury to respond to certain of the Grand Jury's findings and recommendations on desalination. The CWC believes that the Grand Jury's report is fundamentally flawed, and is based on an outdated and incomplete understanding of the issues. We hope that you will take account of our analysis and comments as you formulate your own responses to the Grand Jury.

Thank you for your attention to this very significant public policy concern. Naturally, we would be happy to follow up, and to provide further information, upon request. Please don't hesitate to contact us.

Respectfully submitted,  
Community Water Coalition

  
Denise Holbert, Co-Chair

  
John Aird, Co-Chair





# Community Water Coalition

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Post Office Box 1038, Santa Cruz, CA 95061

Email: Water\_CWC@yahoo.com

Telephone: 831-332-8546

August 1, 2014

Nell Griscom, Foreperson  
2013-2014 Santa Cruz County Grand Jury  
701 Ocean Street, Room 318-I  
Santa Cruz, CA 95060

Sent By Email to: [grandjury@co.santa-cruz.ca.us](mailto:grandjury@co.santa-cruz.ca.us)

RE: 2013-2014 Grand Jury Report – Desalination and Alternatives

Dear Foreperson Griscom and Members of The Grand Jury:

This letter responds to the section of your 2013-2014 Grand Jury Report entitled “Desalination and Alternatives – Water for a Thirsty County.”

The Grand Jury has asked the following agencies or advisory groups to provide responses to various Findings and Recommendations that the Grand Jury has made in the section of its 2013-2014 Report that addresses desalination:

- (1) The Santa Cruz City Council;
- (2) The City of Santa Cruz Water Commission;
- (3) The Board of Directors of the Soquel Creek Water District, and
- (4) The Basin Implementation Group for the Purisima Groundwater Basin.

We are making a copy of this letter available to each of the above-listed agencies or advisory bodies, as well as to the Grand Jury itself. We hope these agencies and advisory bodies will consider our views as they formulate their own responses to your report.

The Community Water Coalition (CWC) is a group of residents and businesses within the City of Santa Cruz Water Service Area dedicated to ensuring adequate water supplies for current customers within the Water Service Area, while maintaining a healthy environment. The CWC was established in 2008, and has been deeply involved since that time in virtually all of the water policy issues that will so profoundly affect the future of Santa Cruz County. The CWC is happy that the Grand Jury has focused attention on the very significant water supply challenges we face.

That said, while the CWC is delighted that the Grand Jury has focused community attention on such an important topic, we were disappointed in your discussion of desalination, as we will outline in detail below. Fundamentally, the Grand Jury’s report is outdated, in terms of its recommendation that a desalination plant should be constructed as a “single alternative” solution to our significant water supply problems. The City of Santa Cruz, in particular, has definitively moved away from this bad idea, and has established a Water Supply Advisory

Committee that is overseeing a comprehensive approach to the difficult problem that the Grand Jury identifies.

Beyond the outdated nature of the Grand Jury report, the CWC was particularly distressed with two aspects of what the Grand Jury had to say. First, the Grand Jury gave very little attention to “alternatives” to desalination, even though that word is featured in the title of the section of your report in which you discuss the issues.

Second, the CWC was also disturbed that while the Grand Jury seemed to understand the complexity of the water supply challenges facing the community, the Grand Jury apparently thought that our public agencies should be attempting to solve these complex problems by finding and deploying a “single alternative.” The following statement, which is contained in the Grand Jury’s report as Finding #5, synthesizes the approach that the Grand Jury is apparently advising:

The SCWD<sup>2</sup> desalination plant is the only available single alternative that can address in a timely manner all of the supplemental water needs of SCWD and SqCWD, while at the same time being immune to climate change (emphasis added).

The CWC urges all the public agencies involved in efforts to address our critically important water supply challenges to discard the idea that there is some “single alternative,” some “silver bullet” solution, that will make our problems go away. The statement above suggests that searching for this kind of “silver bullet” solution is what the Grand Jury advises. If that is the Grand Jury’s advice, we hope that all the concerned public agencies will reject that advice and not try to resume the pursuit of an illusory “single alternative” solution.

The CWC can’t stress enough how terribly unproductive and wrongly directed any such search for a “single alternative” would be – and has been. It is, in fact, appropriate to remind our public officials of the wisdom of H.L. Mencken:

**For every complex problem there is an answer that is clear, simple ... and wrong.**

H.L. Mencken

The proposed City of Santa Cruz/Soquel Water District desalination plant is exactly the kind of project that Mencken might have used as an example of the general principle he was articulating. “Desalination” presents itself as a clear and “simple” solution to a lot of problems, but it is demonstrably NOT “the only available single alternative that can address in a timely manner all of the supplemental water needs” of our community.

In fact, as the environmental and project review process of the proposed desalination plant has made obvious, it is quite unclear whether the proposed desalination solution is actually “available,” in view of the very significant and negative environmental impacts such a project would have – not to mention the great costs involved. Whether desalination can be made to address the issues in a “timely manner” is also questionable, since federal and state agencies

with approval power are unconvinced, at the present time, that desalination is the best solution. Whether desalination would in fact provide enough water to address all our local needs is also uncertain.

Looking for the “silver bullet” solution will only get us into trouble. No “single alternative” will solve our water supply problems. Our problems are complex, and we need a complex and wide-ranging community plan to address them.

The CWC has the following specific responses to the Findings and Recommendations contained in the 2013-2014 Grand Jury Report:

Finding #1 – Both SCWD and SqCWD urgently need a supplemental water source.

This “finding” is based on a misunderstanding of the actual problem we face. We do have a truly urgent problem, but that problem is a significant imbalance between water demands and the water supplies available to meet those demands. An “imbalance” between demand and supply is the problem we face. The premise upon which the Grand Jury is proceeding is that “demand” is a “given,” and can’t be changed, and therefore we need to produce more “supplies.” In fact, the solution we need is not simply to find “more water.” We need to find ways to ensure that our water demands, now and in the future, will be in balance with our water supply, and that our water supply systems will provide an adequate balance in both “wet” and “drought” conditions.

By trying to solve the wrong “problem,” the Grand Jury comes to the wrong “solution.”

Finding #2 – The longer SqCWD and SCWD wait to secure a viable alternative to the overdraft problem, the greater the danger of degradation and possible permanent loss of aquifers.

The CWC agrees that prompt action to stop groundwater overdraft and seawater intrusion is critically important. This is an issue, really, for the Soquel Creek Water District, and only to a much smaller degree for the City of Santa Cruz. The CWC wishes that the Grand Jury had more clearly pointed out that groundwater overdraft problems have been known to the Soquel Creek Water District for years, and that the District has been slow to confront the problems. The CWC also wishes to point out that many private wells are currently contributing to the groundwater overdraft problem within the boundaries of the Soquel Creek Water District, and that dealing with those wells could go a long way in addressing the overall problem in the affected groundwater basins.

Again, the problem is complex, and the “single alternative” of a proposed desalination plant is not likely the best way to deal with it.

Finding #3 – The decision by the City of Santa Cruz to suspend participation in the scwd<sup>2</sup> desalination project forced SqCWD to re-start the planning process without a regional partner.

It is somewhat hard to understand the point of this “finding.” The City of Santa Cruz and the Soquel Creek Water District are separate public agencies with different responsibilities, and they operate very different water systems and serve different areas. The City Council is responsible for serving the water needs of the City’s Water Service Area, and the City’s system relies almost entirely on surface water sources. The Soquel Creek Water District serves a huge geographic area that is totally dependent on groundwater, and the Soquel Creek District has known for years that this is a major problem for the District. The CWC thinks it is regrettable that both the City and the District decided jointly to embark on a search for a “single alternative” solution to their very different problems, with a joint desalination project being the “solution.” As is now clear, this apparently “simple” solution turns out to have raised a number of complex issues, many of which complexities the environmental review process brought to light.

Having now become aware of the complex set of problems facing the City, the Santa Cruz City Council has decided to explore these complexities and alternatives in a comprehensive way, before proceeding with a questionable “silver bullet” solution (the proposed desalination plant). As previously mentioned, the City has established a Water Supply Advisory Committee to pursue this comprehensive approach, an approach that truly considers all the alternatives, and that properly understands the problem as one of finding a way to balance demand and supply. In taking this approach, the City Council has acted responsibly for the businesses and residents it serves. The Soquel Creek Water District Board of Directors is quite clearly doing the same thing, on behalf of its customers, as is also proper. In no sense is the City of Santa Cruz in any way responsible for solving the problems of the Soquel District, any more than the Soquel District is responsible for solving the problems of the City of Santa Cruz.

Finding #4 – The City of Santa Cruz did not adequately communicate the urgent need for a supplemental water source to its ratepayers.

This statement indicates that the Grand Jury did not properly investigate “desalination and alternatives,” and has thus failed to understand why the formerly proposed desalination project is not proceeding ahead. It isn’t because local residents and ratepayers are unaware of the serious nature of our current situation.

From the start, the Santa Cruz City Water Department (under its former Director) and the Soquel Creek Water District advanced their proposed joint desalination project as the “single alternative” that would solve the water problems of both agencies. From the start, community members, including the CWC, urged the City and the District truly to examine a full range of “alternatives,” which the agencies basically refused to do. After the agencies received voluminous comments on their Draft Environmental

Report, it became clear that it was not only the citizens that were distressed by the lack of analysis of feasible alternatives. Every major federal and state agency that has approval power over the proposed desalination plant filed highly negative comments on the Draft Environmental Impact Report on the proposed desalination project.

Critical comments came from the California Department of Fish and Wildlife, the Monterey Bay National Marine Sanctuary, the California Coastal Commission, and the National Marine Fisheries Service. The basic message of these reviewing agencies was that “alternatives” should be seriously considered. Implicit in their comments was the idea that the “single alternative” solution of a desalination plant was probably not the best approach. Here, specifically, is what the National Marine Fisheries Service said in its July 19, 2013 comment letter:

NMFS and CDFW have promoted likely benefits to water supply through a combination of infrastructure improvements to the City’s water facilities. These infrastructure improvements include additional pipelines to maximize conveyance of water into Loch Lomond and to the Graham Hill water treatment facility, upgrades to the water treatment plant, and improved reservoir operation at Loch Lomond. Preliminary information indicates a combination of upgrades will result in measureable improvements to water supply. Unfortunately the Alternatives Analysis [in the Draft EIR] takes a piece-meal approach and dismissed the viability of the various alternatives by evaluating them as stand-alone projects. These projects, when viewed singularly, will not result in as tangible a benefit to improved water supply and reliability, as the benefits of the proposed action [the desalination option]. Therefore, we recommend the Alternatives Analysis examine a reasonably feasible combination of alternatives, such as those recommended by CDFW and NMFS to provide decision-makers with a full range of options for their consideration in the final EIR (emphasis and explanation added).

Finding #4 reflects statements from “officials from Santa Cruz City, County, and SqCWD” [see page 10 of the report], which the Grand Jury has apparently accepted as accurate. They aren’t accurate. The public officials in charge of the proposed desalination project have consistently taken the position that they (the public officials) know what is right, and that if the public doesn’t support their desalination proposal it must be that the citizens are uninformed. Nothing could be further from the truth.

During the time that the proposed desalination project has been under consideration, various bill inserts went to all water customers, outlining the critical issues facing the community. In June 2011, then-Mayor Ryan Coonerty sent a flier to 24,000 residents of Santa Cruz promoting desalination. Many public meetings were held, and what follows is a [partial] listing of the news articles and opinion editorials on desalination and our water supply crisis that have appeared in the local press since 2011, as obtained from the Santa Cruz City-County Library:

**2011**

February 22 Sentinel  
February 23 Sentinel  
March 8 Sentinel  
April 15 Sentinel  
April 21 Sentinel  
July 15 Aptos Times  
September 23 Sentinel  
November 17 Good Times

**2012**

January 3 Sentinel  
January 27 Sentinel  
February 4 Sentinel  
February 22 Sentinel  
February 29 Sentinel  
May 3 Sentinel  
May 30 Sentinel  
August 23 Sentinel  
September 28 Sentinel  
September 29 Sentinel  
September 30 Sentinel  
December 20 Sentinel

**2013**

January 23 Sentinel  
February 6 Sentinel  
May 8 Sentinel  
May 14 Sentinel  
June 2 Sentinel  
June 4 Sentinel  
June 8 Sentinel  
June 14 Sentinel  
June 30 Sentinel  
July 2 Sentinel  
August 20 Sentinel  
August 21 Sentinel  
August 29 Sentinel  
September 21 Sentinel  
October 9 Sentinel  
November 3 Sentinel  
November 27 Sentinel  
December 30 Sentinel

**2014**

January 7 Sentinel  
May 20 Sentinel

In addition, of course, residents and voters within the City of Santa Cruz had the benefit of an extended discussion about the issues during the campaign to qualify an initiative measure for the November 6, 2012 ballot that, as ultimately adopted by the voters (with 72% of the voters in favor), gives City voters the last word on the construction of any desalination plant to serve City water customers. The public has been well informed about, and well understands, the urgent nature of our water supply challenges, but the public has rejected the “single alternative” approach that the public agencies have previously advocated, and that the Grand Jury is now trying to advocate all over again. Here is how one CWC member put it, as the Santa Cruz City Council moved to “reset” the discussion about our water supply challenges after the end of the comment period on the Draft EIR. The CWC agrees with this evaluation:

After two very well-attended DEIR public meetings, extensive news coverage of various points of view, an "outreach" PR campaign sponsored by the collaborating water agencies, and over 400 + submitted written comments on the DEIR, the prevalent view in Santa Cruz is this: They do not want desal either because it's seen as not needed, too expensive, too environmentally harmful, or because they believe there are other viable alternatives which have not been rigorously enough pursued.

Finding #5 – The scwd<sup>2</sup> desalination plant is the only available single alternative than can address in a timely manner all of the supplemental water needs of SWD and SqCWD while at the same time being immune to climate change.

We have commented earlier on this finding, which encapsulates the Grand Jury’s recommended approach. This is, in fact, exactly the approach that has been rejected by the City of Santa Cruz, after the public finally made the Santa Cruz City Council understand that a simple-sounding “single alternative” approach to meeting our water challenges was totally inappropriate. Our water supply crisis cannot be, and will not be, solved by desalination, as a “single alternative” solution. The problems facing us are complex, and we need a complex and wide-ranging community plan to address them. Please note, again, the statements from the National Marine Fisheries Service, quoted above. The need for a multifaceted approach, as opposed to the “single alternative” approach, is not just the idea of the CWC. Those federal and state agencies with the greatest expertise agree with us.

Finding #6 – The draft EIR must be finalized before the environmental studies and alternative projects included in it can be implemented.

This statement is simply not true. A certified and “Final” Environmental Impact Report (EIR) is required before a public agency undertakes any “project.” The Draft EIR on the proposed desalination project does, indeed, incorporate a number of subsidiary environmental studies. These studies can be used for any appropriate purpose, at any time, without the need to “finalize” the EIR on the desalination project. For instance, the environmental studies previously prepared can be used to guide agency policy and project decisions to which they might be relevant. The *only* reason to “finalize” the EIR on the proposed desalination project is to provide the legal support



required under the California Environmental Quality Act (CEQA) to carry out the actual project proposed – the desalination plant. If one or more alternatives are decided upon, then those alternative projects will require review under CEQA. In connection with any such environmental review, the materials and studies developed during the Draft EIR for the proposed desalination plant can be used, as appropriate.

To reiterate, the ONLY reason to “finalize” an EIR on the proposed desalination project is to provide the necessary legal support to undertake *that* project. Since both the City of Santa Cruz and the Soquel Creek Water District are now examining a more complex set of alternative possibilities, it would be highly inappropriate to spend more money to “finalize” an EIR for a project that has not, at this point, been selected for actual construction.

Finding #7 – DeepWater and District-only desalination projects will face many obstacles, including completion of EIRs and securing local approval.

This statement is absolutely true. In fact, ANY desalination project will face many obstacles, including completion of EIRs and securing local (and federal and state) approval.

Finding #8 – The private company Central Coast Regional Water Project will have inordinate control over the water rates of the DeepWater Desalination project since it will control the intake pipe.

While the CWC does not pretend to have expert knowledge about the so-called “DeepWater Desalination” project, the CWC does agree that any proposal that puts the public on the hook to pay a profit-making company is almost always disadvantageous from the public’s point of view. The residents and taxpayers of Santa Cruz County are lucky that their water is delivered by public agencies that are subject to voter control.

Finding #9 – Agencies that wait to buy into the DeepWater plant may be excluded because the limited amount of water produced may already be allocated.

Again, while the CWC does not pretend to have expert knowledge about the so-called “DeepWater Desalination” project, it does seem likely that any such project will be able to produce only a limited amount of fresh water, and that the Grand Jury is thus correct in its observation. It is worth noting that many proponents of desalination present desalination as an option that will provide “unlimited” fresh water. The CWC specifically references an advertising campaign by the California American Water Company, which is proposing to build a desalination plant in Monterey County. The Cal-Am television advertisements promise unlimited water from desalination, because the ocean is “unlimited.” Even if the incredibly high cost of desalination were not a factor (as it is), no desalination project can truthfully promise “unlimited” future fresh water supplies.

Finding #10 – State water rights evaluations will delay the prospective start date of the Regional Water Transfer Project.

There is no doubt that State water rights issues will take time to resolve, for any regional project that requires a reallocation or redetermination of agency water rights. Whether the time required should be characterized as a “delay,” however, is questionable. ANY solution to our complex water supply crisis will take time, just as a “single alternative” desalination project would. The CWC believes that genuine regional cooperation can speed a regional solution. If there is not an agreement between all the regional agencies involved, finding a solution that reallocates water rights will, indeed, take a significant amount of time.

Finding #11 – Without modification, the SCWD Tait Street treatment facility is not large enough to accommodate the needs of the Regional Water Transfer Project.

If the various regional agencies involved can agree on a Regional Water Transfer Project, as part of a way to address the complex water supply problems affecting our region, then it is likely that costs for various infrastructure improvements, including improvements to the Tait Street treatment facility, will be necessary.

Finding #12 – Officials in SCWD and SqCWD have not given sufficient consideration to a regional recycling plant.

The CWC agrees with the Grand Jury that serious consideration should be given to a regional water recycling plant, as part of the way that responsible agencies can address the complex water supply problems affecting our region. The CWC also notes that such a water recycling plant is likely not a panacea, or a “single alternative” solution, since there are significant public health issues involved.

Finding #13 – A water recycling facility would allow for injection wells to either help recharge the aquifer or to build a barrier against seawater intrusion.

The CWC agrees.

Finding #14 – Because there is no detailed groundwater model of the Purisima basin, it is difficult to do the studies and research needed to protect the aquifer.

The CWC agrees.

Finding #15 – Private pumpers have unregulated access to water and do not contribute financially to aquifer protection efforts.

The CWC agrees.

Recommendation #1 – City of Santa Cruz Water Department should secure a supplemental water supply.

The CWC notes again that what the responsible water agencies need to do is to find a way to provide a balance between current and expected future demand and current and possible future supplies. A search for a “supplemental water supply” is a

misguided search. This characterization of the problem makes it seem that a “single alternative” solution is possible, which is not true, and seems to indicate that “new supplies,” as opposed to a new method of reconciling and balancing demands and supplies, is what we should be aiming for. Again, that is simply not correct.

Recommendation #2 – Soquel Creek Water District should secure a supplemental water supply.

See our comment to Recommendation #1.

Recommendation #3 – The City of Santa Cruz should ensure that the scwd<sup>2</sup> draft EIR be finalized by the end of calendar year 2014.

This would be an incredible waste of money, and would probably derail the cooperative work now underway to develop a complex and wide-ranging community plan to address our water supply crisis. The ONLY reason to “finalize” the EIR for the proposed desalination project would be to provide the legal support required by CEQA to permit the actual construction of such a desalination plant. Unless and until there is a consensus that this is, in fact, the correct direction for our community, “finalizing” the EIR would be a waste of money, and would divide the community.

Recommendation #4 – The City of Santa Cruz should immediately convey to its citizens the urgency of the long-term regional water situation.

Based on the documented extensive media coverage of the issue, the CWC believes that Santa Cruz citizens fully understand the urgency of our long-term regional water situation.

Recommendation #5 – The City of Santa Cruz should strongly consider reviving the scwd<sup>2</sup> desalination plan prior to the next available General Election.

First, Measure P, an initiative measure passed on November 6, 2012 in the City of Santa Cruz by a 72% “Yes” vote, amended the City Charter to establish the right of the voters to make the final determination on desalination – AT a General Election. Trying to “revive” the desalination project prior to such an election would appear to contravene these legally binding provisions in the City Charter. Second, as we hope this response to the Grand Jury has made clear, the proposed desalination project has been an attempt to develop a “single alternative,” as a simple solution to a complex problem. The City of Santa Cruz has wisely chosen to try to develop a more complex and wide-ranging community plan to address our water supply crisis. This recent effort by the City should be supported and applauded, not criticized and denigrated. Pursuing the recommendation of the Grand Jury would be a giant step backward, not an advance.

Recommendation #6– City of Santa Cruz Water Department and Soquel Creek Water District should continue to pursue a regional solution such as Desalination or Regional Water Transfers with Recycling.

The CWC believes that the CITY (not just its Water Department) and the Soquel Creek Water District should continue to pursue a regional solution to the complex water supply crisis affecting the community. What will be required will be a complex and wide-ranging water plan, not a “single alternative” solution that focuses entirely on adding “new water.”

Recommendation #7– Members of the Basin Implementation Group should complete work on a groundwater model of the Purisima basin as soon as possible.

The CWC agrees.

Recommendation #8– The Basin Implementation Group should establish a Replenishment District for the Purisima Aquifer.

The CWC agrees that the possibility of establishing a Replenishment District should be seriously pursued. Establishing comprehensive and effective groundwater management program for the groundwater basins upon which the Soquel Creek Water District relies should be a high priority for the District.

CONCLUSION

The CWC is happy that the Grand Jury has chosen to spotlight the critically important need for our local water agencies to develop a satisfactory and workable solution to the water supply challenges facing us, but the Grand Jury’s obvious preference for a “single alternative,” based on finding some sort of “new water,” is wrongheaded. The Grand Jury’s implicit support for the proposed desalination plant as the preferable “single alternative” is fundamentally misplaced.

Finally, the public DOES know about our current crisis. What has been lacking has been the willingness of the water agencies fully to involve the public in developing the kind of complex regional plan that will be necessary to balance long-term water demand with long-term water supplies. The CWC is delighted that this kind of public involvement and planning, focused on the right kind of comprehensive solution, is now underway. Following many of the recommendations of the Grand Jury would take the community backward, not forward.

Respectfully submitted,  
Community Water Coalition

  
Denise Holbert, Co-Chair

  
John Aird, Co-Chair

**DISTRIBUTION:**

City Council, City of Santa Cruz  
City of Santa Cruz Water Commission  
Board of Directors, Soquel Creek Water District  
Basin Implementation Group, Purisima Groundwater Basin  
Santa Cruz City Manager  
Santa Cruz City Water Director  
County Water Resources Director  
General Manager, Soquel Creek Water District  
Members, City of Santa Cruz Water Supply Advisory Committee  
Members, Local Agency Formation Commission (LAFCO)  
Members, Santa Cruz County Board of Supervisors  
Other Interested Persons

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## WATER DEPARTMENT MEMORANDUM

DATE: October 6, 2014  
TO: Water Commission  
FROM: Toby Goddard, Administrative Services Manager  
SUBJECT: Water Conservation Master Plan

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**RECOMMENDATION:** That the Water Commission review and comment on the Technical Memorandum for the Water Conservation Master Plan and recommend Program C<sub>REC</sub> to City Council as the preferred program.

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**BACKGROUND:** Work on the Water Conservation Master Plan (WCMP) began in March 2013. Since then, the Water Commission has provided feedback and guidance on three phases of the project: 1) review of current water conservation efforts, water system characteristics, and water demand projections, 2) identification, screening, and evaluation of potential water conservation measures, including an assessment of water savings arising from plumbing code changes, and 3) bundling the various measures into four different program options, analyzing the results, and selecting a preferred program.

**DISCUSSION:** At its May 2014 meeting, the Water Commission received a presentation from staff and Maddaus Water Management, Inc. (MWM), the project consultant. Among other actions, the Water Commission requested that a Technical Memorandum summarizing the status of the project be prepared for City Council review. This action was consistent with the original scope of work that called for a status report to be presented to the City Council following completion of the technical analysis before launching into preparation of the final report.

In the intervening time, Water Department staff and the consultant held two modeling workshops to familiarize Water Commissioners, Water Supply Advisory Committee members, and interested public with the Least Cost Planning Decision Support System Model (DSS Model) and provide a broader forum for feedback on the various Conservation Program alternatives under consideration. The DSS Model is the consultant's proprietary program for modeling water use and water efficiency measures. Several planning strategies were vetted during the workshops including the need to establish an interim or operating Conservation Plan while demands fluctuate as a result of the drought and the Water Supply Advisory Committee deliberates on supply alternatives. Staff and MWM optimized Program C (called Program C<sub>REC</sub>) with respect to

budget, staffing, and implementation and drafted the attached Technical Memorandum to reflect Program C<sub>REC</sub> as the preferred interim conservation strategy.

When the scope of work was negotiated in early 2013, it was not envisioned at the time that there would be the need for review by another entity besides the Water Commission. With the creation of the Water Supply Advisory Committee (Committee), however, staff anticipates that: 1) the Committee will be looking at the work done to date and may be asking for additional analysis to be completed, and 2) MWM will be providing additional technical analysis as part of the Committee's process. Accordingly, the planned next steps following Water Commission action would be for City Staff to recommend to the City Council adoption of at least an interim long term conservation plan so that we can use the direction provided to develop budget information for Fiscal Year 2016. Following completion of the Committee's work, any recommendations related to conservation that are approved by the Council will be integrated into the Long Term Conservation Master Plan and the Council will be asked to approve it again.





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## Technical Memorandum

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Prepared for: The City of Santa Cruz  
Project Title: Water Conservation Master Plan

### Technical Memorandum

Subject: Overview of Current Findings from Water Conservation Master Planning Effort  
Date: September 30, 2014  
To: Susan O'Hara, City of Santa Cruz  
Toby Goddard, City of Santa Cruz  
From: Lisa Maddaus, Maddaus Water Management  
Bill Maddaus, Maddaus Water Management

---

## EXECUTIVE SUMMARY

Since work on the Water Conservation Master Plan (WCMP) kicked off in March 2013, the Water Commission has provided feedback and guidance on three distinct planning phases: (1) review of system-wide demand projections/establishment of demand planning baseline; (2) evaluation of system-wide conservation potential; and (3) identification and technical analysis of existing and future potential conservation measures using the Decision Support System Least Cost Planning Model (DSS Model). This memorandum focuses on the current outcomes of the third phase of technical analysis. The last and final phase of the project will be to prepare the final Water Conservation Master Plan based on acceptance of the findings from the technical analysis included in this technical memorandum.

Future conservation potential will be achieved through plumbing code updates (passive conservation) and new programming (active conservation). Four active conservation program scenarios were developed with guidance from the City and based on Water Commission and public input. Program C Recommended (C<sub>REC</sub>) was determined to be the best option for a long-range conservation plan for the City at this time. Program C<sub>REC</sub> ramps up at a measured pace over the next several years and is envisioned to be modified as conditions change in the service area (e.g., demand and supply projections are streamlined, supply alternative avoided costs are defined, availability of new technology or grant funding opportunities arise). Table ES-1 summarizes the active elements of the recommended plan that extend beyond the “passive” code and standards savings that are expected to continue.

**Table ES-1. Summary of Active Elements for Recommended Program C<sub>REC</sub>**

General Measures	Residential Measures (Indoor)	Commercial Measures (Indoor)	Irrigation Measures (Outdoor)
Water Loss Control Program	Real Customer Water Loss Reduction – Leak Repair and Plumbing Emergency Assistance	CII MF High-Efficiency Washer Rebate	City Code Requirement for New Landscaping
Install Advance Metering Infrastructure (AMI)	Single Family Water Surveys	Promote Restaurant Spray Nozzles	Residential Single Family Landscape Conversion or Turf Removal
Water Budget Based Billing	High Efficiency Faucet Aerator/Showerhead Giveaway	High Efficiency Urinal Program	Residential Multifamily and CII Landscape Conversion or Turf Removal
Public Information Program Including Various Outreach & Education Approaches	Residential Ultra High Efficiency Toilet (UHET) Rebates	School Building Retrofit	Expand Outdoor Water Survey and Water Budgets
Customer Billing Report and Service	Residential Washer Rebate	Customized Top Users Incentive Program	Rotating Sprinkler Nozzle Rebates
	Require High Efficiency Clothes Washers in New Development	CII and MF Surveys and Top Water Users Program	Residential Gray Water Retrofit
	Require Hot Water on Demand/Structured Plumbing in New Developments	Public Restroom Faucet Retrofit	Provide Rain Barrel Incentive
	Toilet Retrofit at Time of Sale		

Table ES-2 presents the benefit cost analysis summary for each of the program scenarios.

**Table ES-2. Recommended Program (C<sub>REC</sub>)**

<b>Conservation Program</b>	<b>Present Value of Water Savings</b>	<b>Present Value of Utility Costs</b>	<b>Water Utility Benefit/Cost Ratio</b>	<b>Community Benefit/Cost Ratio</b>	<b>Estimated 2030 No. of Staff</b>
<b>Program C<sub>REC</sub> - "Recommended to Maximize Savings" with Plumbing Code</b>	\$10,231,858	\$14,497,567	0.71	0.48	5.2

The ultimate goal is to have the final Water Conservation Master Plan adopted by the City Council. The following steps are suggested to reach that goal within the next six to nine months.

1. Present this technical memorandum at October 6<sup>th</sup> Water Commission and take comments.
2. Revise memorandum as needed and submit to City Council for review, comment and potential adoption of an interim conservation plan. Alternatively, the City Council may suggest the Water Supply Advisor Committee review findings of this technical memorandum and interim conservation plan.
3. Once reviewed by the Water Supply Advisory Committee, prepare a draft final report describing the process and the Recommended Plan in more detail.
4. Review the report with the Water Commission.
5. Revise as necessary and submit to the City Council for adoption.

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# 1. INTRODUCTION

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This technical memorandum provides an overview of current findings from water conservation master planning effort.

## 1.1 Purpose of Updated Water Conservation Plan

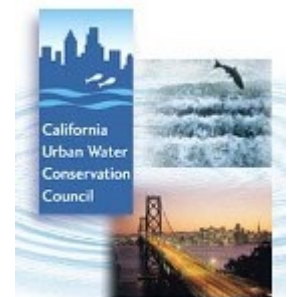
The purpose of the updated Water Conservation Master Plan has been threefold and is described as follows:

- *Timing* – The existing plan has been completed and is due for an update.
- *Priority* – Strengthening water conservation efforts was identified as top priority in City Council’s 3-year Strategic Plan and Water Commission’s 2012-14 work plan.
- *Need for Information* – The City needs to better understand the remaining water conservation potential and its costs to help make informed decisions about future water supply.

## 1.2 Background

Water is a precious natural resource that is vital to the health and welfare and to the economy of the Central Coast region. The City of Santa Cruz relies entirely on local sources for the community’s drinking water supply. Because water supplies are limited, it is important that everyone uses water efficiently. The City of Santa Cruz has had a long-standing commitment to water conservation and offers a variety of programs, informational materials, and incentives to help City water customers become more water-efficient. Figure 1 presents the Water Conservation Program Timeline as a summary of historical water conservation program activities.

In 2000, the City adopted a Water Conservation Plan, the goal of which was to reduce water demand system-wide by 282 million gallons per year in 2010. Through plumbing fixture and appliance rebate programs, technical assistance, regulations, and other strategies, residential and commercial customers have saved over 250 million gallons of water per year so far. The City is also a member of the California Urban Water Conservation Council (CUWCC) and is active in promoting water conservation statewide.



In 2013, the Water Conservation Office contracted with Maddaus Water Management (MWM) to develop an updated Water Conservation Master Plan. The goal of the updated plan is to define the next generation of water conservation activities and serve as a roadmap to help our community achieve maximum, practical water use efficiency.

## 1.3 Need and Plan Objectives

The City of Santa Cruz’s Water Conservation Master Plan strives to maximize the community’s efficient use of water in the most equitable and cost-effective manner to the extent practical for implementation by City staff.

Key priorities of the WCMP include:

- Capitalize on opportunities to meet the future water needs of the Santa Cruz Water Department customers through cost-effective and sustained water conservation and water use efficiency efforts;
- Demonstrate environmental stewardship and foster innovative, responsible and efficient practices;
- Commit to and implement a water conservation program that supports the health of rivers, streams and groundwater integral to the region’s quality of life and economy.
- Monitor and measure performance to ensure conservation potential is being met as forecasted.

Achieving these goals will allow the Water Department to:

- Maintain and exceed the water savings already achieved by the City of Santa Cruz; identify the best path to achieve those savings and to monitor commitments to the CUWCC Memorandum of Understanding Regarding Urban Water Conservation (MOU);
- Maintain long-term plan for compliance with SB X7-7 to meet the gallons per capita per day (GPCD) target by 2020.

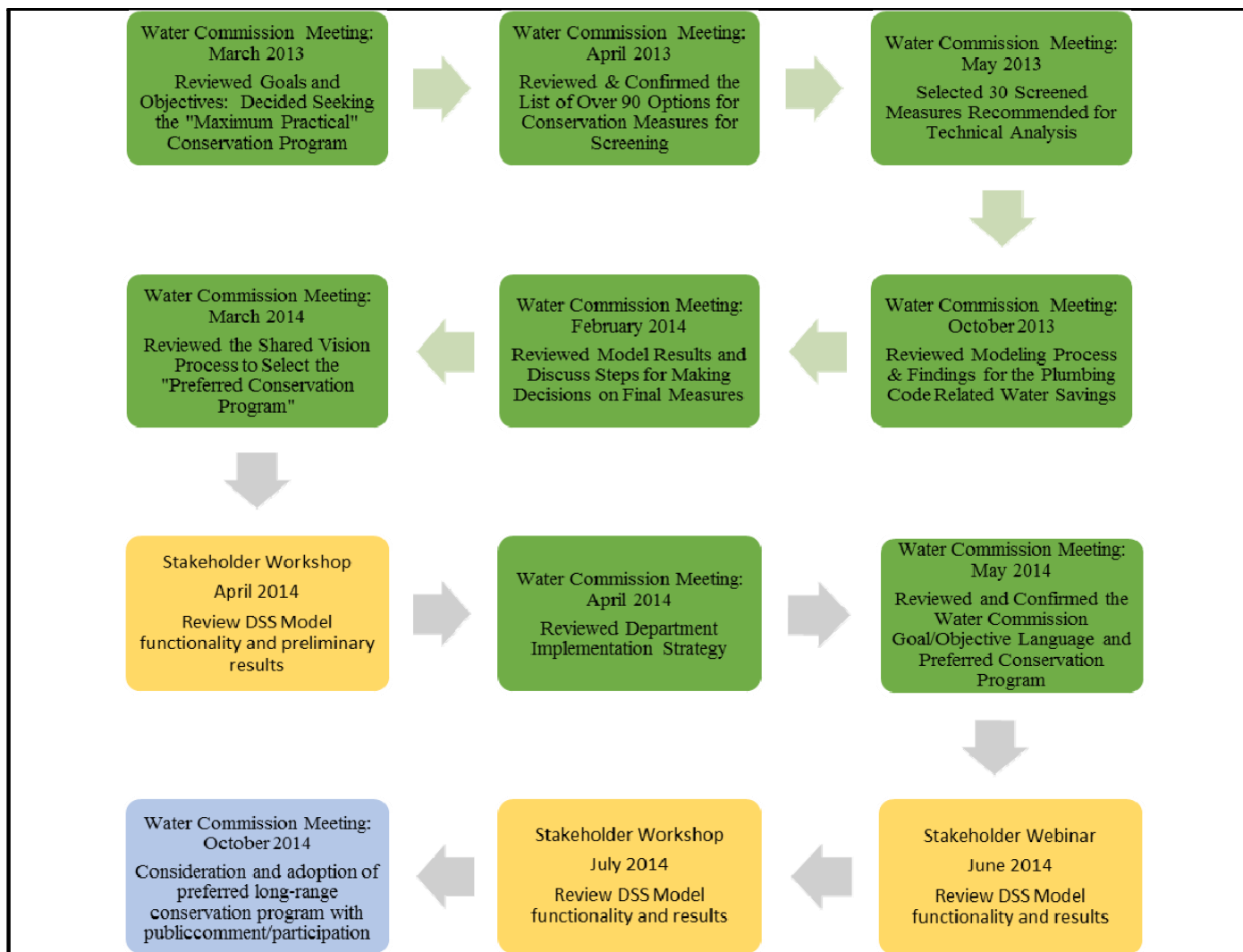


## 1.4 Planning Process

Work on the Water Conservation Master Plan (WCMP) began in March 2013. Since that time, the Water Commission has developed the goals of the planning effort; identified and selected of a suite of potential quantifiable conservation measures for technical analysis; and evaluated system-wide conservation potential through selection of a recommended program scenario. Figure 2 presents the steps to the Water Commission planning process.

In preparation for this project, the City completed a Residential and Commercial Baseline Water Use Survey to assess the current status of plumbing fixtures, appliances, and landscape characteristics present in the City's water service area.

**Figure 2. Steps Taken Through September 2014**



## 2. DEVELOPMENT OF THE RECOMMENDED PROGRAM

The WCMP process comprises four distinct phases: analysis of system-wide demand projections/establishing demand planning baseline; evaluation of system-wide conservation potential; identification and study of potential conservation measures; and deliberation and adoption of preferred long-term conservation program. Each of these phases is described in more detail in the following sections.

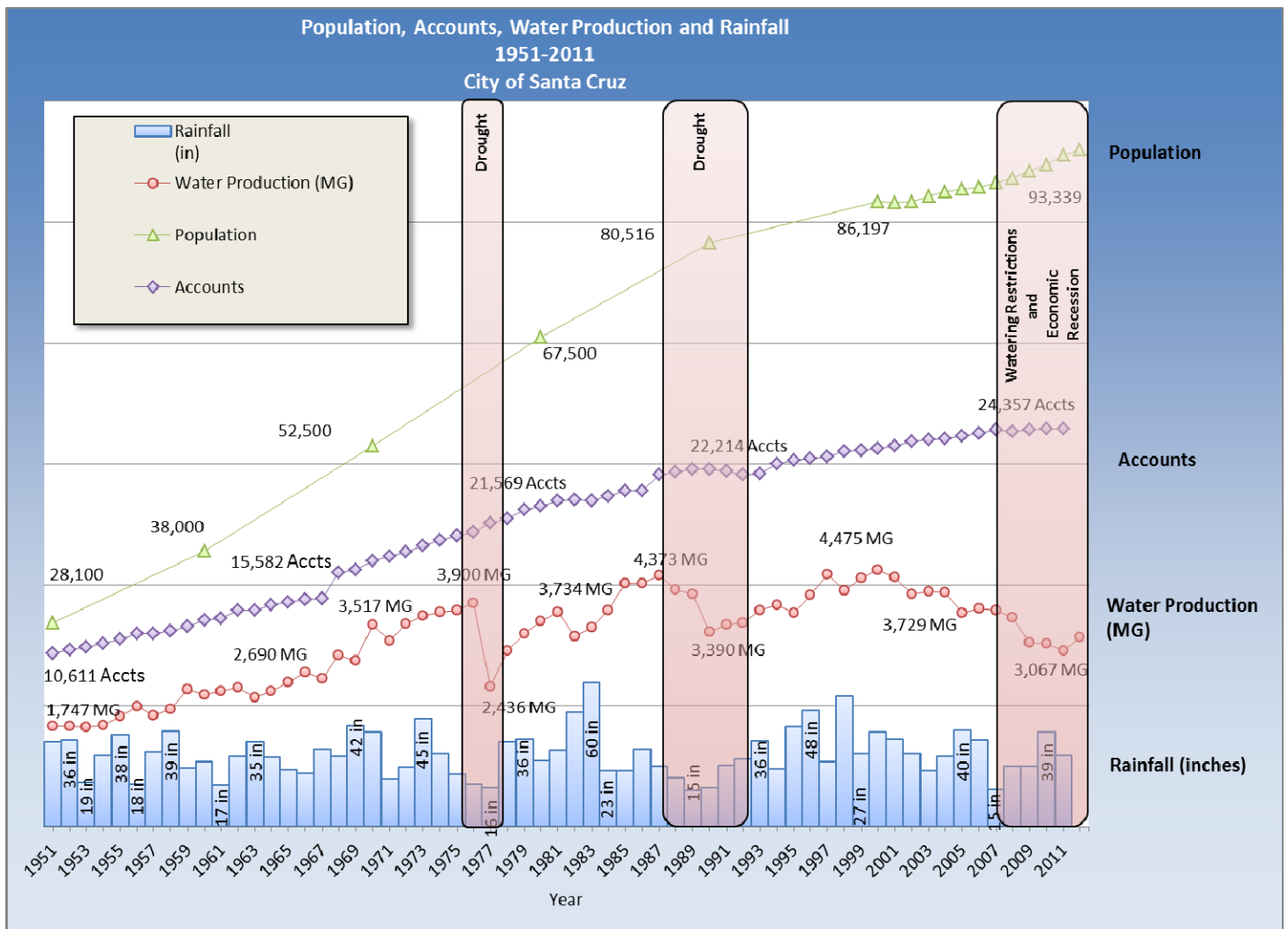
## 2.1 Demands

### 2.1.1 Historical Trends

The WCMP projects system-wide demand consistent based on the adopted City of Santa Cruz 2010 Urban Water Management Plan (UWMP). The 2010 UWMP assumed a recovered 2010 baseline of 2007-08 levels (3,500 million gallons per year in 2010 with 500 million gallons per year of growth over a 20 year period) with economic recovery and normalized/non-drought rainfall patterns.

Since 2010, however, the City has not seen a full demand recovery (2013 system-wide demand was 3,364 million gallons per year, with Stage 1 water shortage regulations and restrictions in effect) and demands are projected to remain depressed after the year 2014 rationing due to the drought conditions. Nonetheless, system-wide demand has recovered to pre-drought levels after each of the three droughts of record since 1951, as noted in Figure 3. Given the pattern of consistent recovery, it is prudent to assume that future demands will follow suit when rainfall patterns/drought conditions and the economy normalize.

**Figure 3. Historical Trends for City of Santa Cruz**



### 2.1.2 Basis for Demand Forecast

Maddaus Water Management employed its Least Cost Planning Decision Support System Model (DSS Model) for the technical analysis. In addition to considering historical demand trends and previous UWMP Scenario 2 projection analysis to determine projected waters demand as model inputs, the DSS Model considers the growth rates of the following parameters: total population, single family population, multi-family population, UCSC population, commercial employment, business-industrial growth, and municipal growth.



The baseline demand forecast is shown in Figure 4 (alongside demands with passive savings). The City staff will continue to monitor production and consumption through and following the drought. The City will be adopting an updated demand forecast for the 2015 UWMP due in July 2016. The DSS Model was prepared using the most recently adopted forecast and may be updated when a new demand forecast is approved in the future.

## 2.2 Conservation Savings

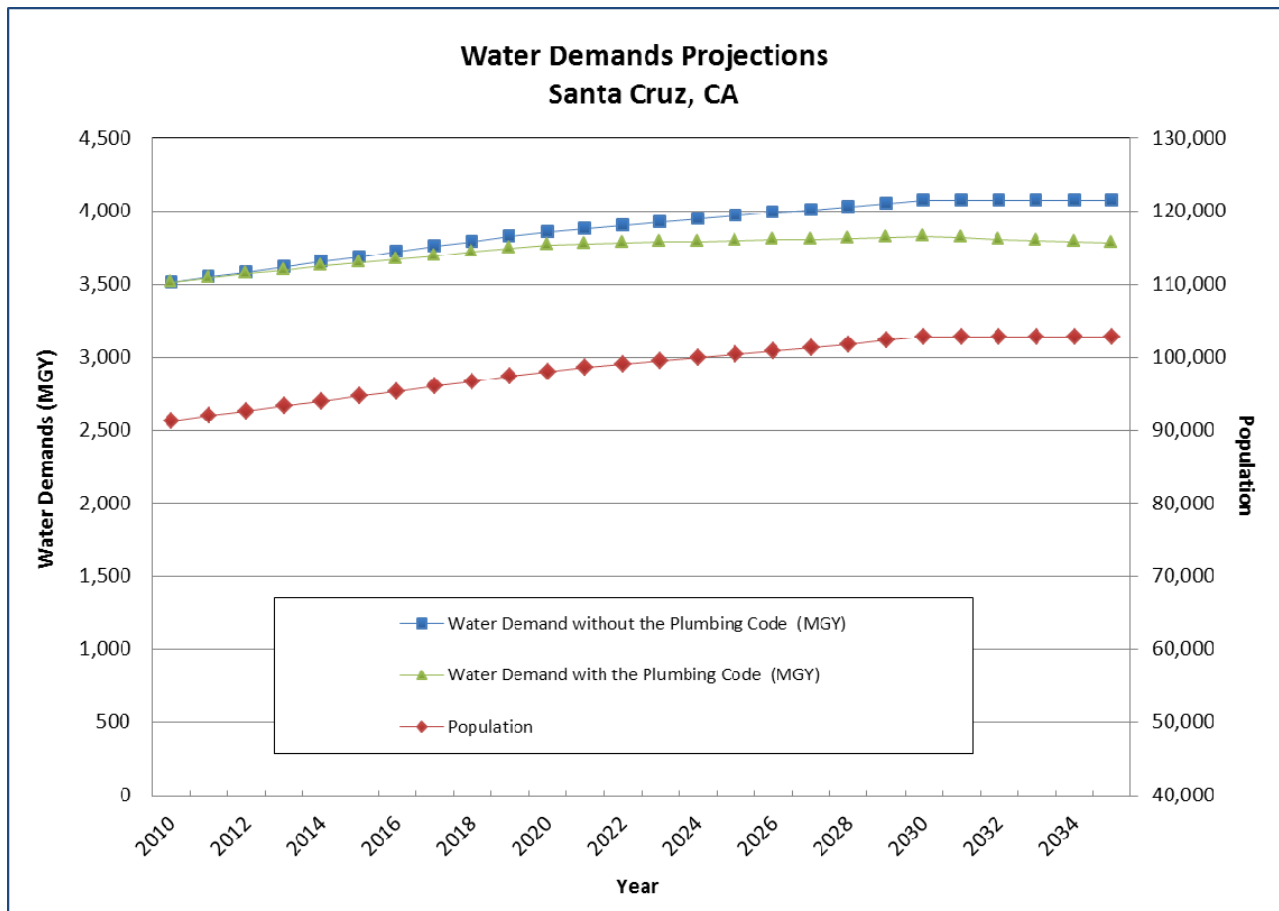
Future community-wide conservation savings will be achieved by implementing both passive and active measures. Passive measures are federal and state codes and standards that increase conservation savings as older appliances and fixtures are replaced over time naturally with more water efficient models. Active measures are those in which the City will invest to promote conservation such as incentives and educational programs.

### 2.2.1 Code and Standards (Passive) Savings

Since it is beneficial to model the impact of the natural changes in the mix of types of appliances, the DSS Model forecasts service area water fixture use. In the codes and standards part of the DSS Model, specific fixture end use type (point of use fixture or appliance), average water use and lifetime are compiled. Additionally, state and national plumbing codes and appliance standards for toilets, urinals, showers, and clothes washers are modeled by customer category. These fixtures and plumbing codes can be added to, edited, and/or deleted by the user. This yields two demand forecasts – one with and one without plumbing code savings.

The DSS Model results estimate total cumulative plumbing code savings of 240 million gallons per year by 2030. As seen in Figure 4, water savings from fixture and appliance codes alone is expected to reduce total water demand from slightly above 4,000 million gallons per year to about 3,800 million gallons in 2030, a reduction of about 6 percent.

**Figure 4. Demand Forecast With and Without Plumbing Code Savings**



## 2.2.2 Active Conservation

The Recommended Program  $C_{REC}$  consists of both passive and active elements. Plumbing code measures account for 44% of the future conservation potential achieved and are independent of any program – the savings are based on customers following applicable current local, state and federal laws, building codes and ordinances. Recommended active measures fall within one of four categories: general measures, residential measures (indoor), commercial measures (indoor) and irrigation measures (outdoor). Additional qualitative measures that are educational in approach to raise customer awareness or are mandates that apply to a limited number of future customers, will be discussed in the final plan recommendations.

### SB X7-7 and CUWCC Goals

With two possible conservation target tracks to follow, the City has selected to aim to achieve SBX7-7 Method 3: 95% of State Hydrological Region Target by 2020. The City's baseline and target GPCD are as follows:

- Baseline GPCD = 113 GPCD
- 2020 target = 110 GPCD
- CUWCC 2018 target = 101 GPCD

The City has already met its state-mandated 2020 target and surpassed its voluntary CUWCC 2018 goal. The goal of the City's plan is to press beyond these state targets and instead maximize conservation savings to help meet local resource needs for current and future water demands.

## 2.3 Modeling Process

Maddaus Water Management employed its Least Cost Planning Decision Support System Model (DSS Model) for the technical analysis. The following sections describe key elements used in the analysis that were reviewed during two Water Commission Meetings with public input along with both a webinar and two in-person workshops including interested local community stakeholders, Water Commission members and Supply Alternatives Committee members.

### 2.3.1 Avoided Cost for Cost Effectiveness Analysis

The City is currently assuming an avoided cost of water of \$2,500/MG as a hypothetical value set at five times higher than the current cost to produce water given the cost of a future water supply source is unknown. This avoided cost is scalable and as a result, could be adjusted down to the current cost of water \$500/MG or increased to reflect a more expensive future water supply for comparison purposes. Changing the avoided costs would alter estimated benefits (from the avoided costs), however it would not change the overall relative differences between the measures and therefore may not lead to different planning decisions from the results of the cost effectiveness analysis.

### 2.3.2 Screening of Measures

The process to identify and thoroughly evaluate potential conservation measures was iterative. First, an extensive list of more than 90 potential measures was generated based on input from City staff, consultants, Water Commissioners and the public. This task included a review of the current active water conservation measures and the identification of new measures that may be appropriate for the City's service area. Next, the list of potential measures was screened to set aside measures that may not be appropriate for myriad reasons to seek those that would be included in the future program. The following criteria were used to narrow the list of potential measures:

- Water Saving Potential – emphasize measures that reduce average daily water use the most within the Santa Cruz community.
- Sustainable Water Savings – emphasize measures that have long-term reliability.
- Quantifiable Water Savings – emphasize measures where water savings can be accurately predicted.
- Widespread Community and Social Acceptance – emphasize measures with high participation rates, low out-of-pocket expenses, and are equitable across customer type and social demographics.
- Feasibility of Implementation/Secondary Impacts – emphasize measures that can achieve objectives.

- Ancillary Benefits – emphasize measures that achieve additional goals such as reducing energy/ greenhouse gases (GHGs), reducing peak-season use, providing valuable customer service, and other non-quantifiable benefits (behavioral change, public awareness, etc.).

Further details about this process as well as a list of all the 90 potential measures are available from City staff. From the screening, the Water Commission approved the recommended list of measures for the technical analysis phase of the project. The following list of measures was selected for inclusion in the future planning:

### *Utility Operations*

The following conservation measures affect utility operations.

- Enhanced Water Loss Control Program
- Automatic Meter Infrastructure (AMI)

### *Education*

The following conservation measures are considered educational.

- Water Budget Based Billing
- Public Information Program Including Various Outreach & Education Approaches
- Customer Billing Report and Service
- Expand Outdoor Water Survey and Water Budgets
- Single Family Water Surveys
- CII and MF Surveys and Top Water Users Program (top customers from each customer category)

### *Incentives*

The following conservation measures are considered incentives; they involve providing devices, rebates, etc.

- Real Customer Water Loss Reduction – Leak Repair and Plumbing Emergency Assistance
- High Efficiency Faucet Aerator/Showerhead Giveaway
- Residential Ultra High Efficiency Toilet (UHET) Rebates
- Residential Washer Rebate (Intensive)
- CII MF High-Efficiency Washer Rebate
- CII Incentives
- Promote Restaurant Spray Nozzles
- Customized Top Users Incentive Program
- High Efficiency Urinal Program
- Public Restroom Faucet Retrofit
- School Building Retrofit
- Residential Single-family Landscape Conversion or Turf Removal (Intensive)
- Residential Multifamily and CII Landscape Conversion or Turf Removal (Current)
- Rotating Sprinkler Nozzle Rebates
- Residential Gray Water Retrofit
- Provide Rain Barrel Incentive

### *Mandates*

The following conservation measures are mandates, involving a local ordinance to implement.

- Require High Efficiency Clothes Washers in New Development
- Require Hot Water on Demand/Structured Plumbing in New Developments
- Toilet Retrofit at Time of Sale
- City Code Requirement for New Landscaping

## 2.4 Modeling Results

A total of 50 individual measures were evaluated using the DSS Model. For each measure selected to be modeled, a description as well as details on each measure’s utility and customer costs, time period, and targets are in the DSS Model inputs. More detailed information on model inputs for each measure is available from City staff.

Some of the key assumptions used in evaluating the water savings, benefits, and costs include the following:

- Applicable customer class
- Applicable end use
- Annual account participation rates
- Evaluation start and end year
- Program length, years
- Measure life, years

- Utility unit cost, \$
- Customer unit cost, \$
- Annual administration and marketing overhead

Table 1 on the following page presents a list of all 50 measures and the following benefit cost analysis parameters:

- Present Value of Water Utility Benefits
- Present Value of Community Benefits
- Present Value of Water Utility Costs
- Present Value of Community Costs
- Water Utility Benefit to Cost Ratio
- Community Benefit to Cost Ratio
- First Five Years of Water Utility Costs 2015-2020
- Water Savings in 2030 (mgd)
- Cost of Savings per Unit Volume (\$/mg)

**Table 1. Summary of Conservation Program Measures Benefit Cost Analysis**

<b>Measure</b>	<b>Present Value of Water Utility Benefits</b>	<b>Present Value of Community Benefits</b>	<b>Present Value of Water Utility Costs</b>	<b>Present Value of Community Costs</b>	<b>Water Utility Benefit to Cost Ratio</b>	<b>Community Benefit to Cost Ratio</b>	<b>Five Years of Water Utility Costs 2015-2020</b>	<b>Water Savings in 2030 (MG)</b>	<b>Cost of Savings per Unit Volume (\$/MG)</b>
<b>Reduce Water Loss</b>	\$2,071,445	\$2,071,445	\$2,196,195	\$2,196,195	0.94	0.94	\$660,000	48.80	\$1,803
<b>AMI</b>	\$141,804	\$141,804	\$429,697	\$4,932,552	0.33	0.03	\$0	5.80	\$4,967
<b>Water Rates</b>	\$313,021	\$313,021	\$32,878	\$120,553	NA <sup>1</sup>	NA	\$37,573	7.38	\$178
<b>General Public Information</b>	\$321,824	\$321,824	\$1,129,676	\$1,506,235	0.28	0.21	\$286,484	6.43	\$6,268
<b>Public Info (Home Water Use Report)</b>	\$457,993	\$978,004	\$498,751	\$498,751	0.92	1.96	\$65,163	13.16	\$1,795
<b>Res Leak Assistance</b>	\$1,118,043	\$1,118,043	\$711,698	\$711,698	1.57	1.57	\$110,040	37.07	\$1,080
<b>Res SF Survey</b>	\$102,297	\$102,297	\$730,794	\$982,791	0.14	0.10	\$210,429	2.56	\$12,615
<b>Pressure Reduction</b>	\$79,347	\$146,764	\$406,400	\$406,400	0.20	0.36	\$0	3.60	\$8,039
<b>Plumbing Fixture Giveaway</b>	\$1,035,452	\$3,245,720	\$108,399	\$108,399	9.55	29.94	\$78,367	24.83	\$182
<b>Res HET Rebates</b>	\$446,950	\$446,950	\$519,219	\$903,826	0.86	0.49	\$190,037	8.99	\$2,079
<b>Res UHET Rebates</b>	\$672,883	\$672,883	\$1,756,615	\$3,057,811	0.38	0.22	\$657,513	21.59	\$4,294
<b>Direct Install UHET</b>	\$943,697	\$943,697	\$1,488,873	\$1,831,143	0.63	0.52	\$474,010	29.71	\$2,570
<b>HECW Rebates A<sup>2</sup></b>	\$1,265,291	\$4,405,994	\$726,251	\$3,416,068	1.74	1.29	\$337,716	31.20	\$993
<b>HECW Rebates B</b>	\$1,877,470	\$6,537,500	\$2,295,733	\$5,575,352	0.82	1.17	\$1,167,414	48.13	\$2,097
<b>HECW - New Dev</b>	\$486,428	\$1,985,932	\$239,664	\$3,671,291	2.03	0.54	\$98,396	15.70	\$812
<b>Hot Water On Demand</b>	\$63,489	\$198,318	\$975,123	\$2,275,286	0.07	0.09	\$151,743	2.03	\$24,031

Measure	Present Value of Water Utility Benefits	Present Value of Community Benefits	Present Value of Water Utility Costs	Present Value of Community Costs	Water Utility Benefit to Cost Ratio	Community Benefit to Cost Ratio	Five Years of Water Utility Costs 2015-2020	Water Savings in 2030 (MG)	Cost of Savings per Unit Volume (\$/MG)
Hot Water On Demand - New Dev	\$190,431	\$624,338	\$287,964	\$17,668,747	0.66	0.04	\$60,291	7.05	\$2,407
Toilet Retrofit TOS	\$422,191	\$422,191	\$255,855	\$793,597	1.65	0.53	\$172,806	8.96	\$1,070
CII MF Common HECW	\$116,887	\$483,887	\$216,486	\$416,936	0.54	1.16	\$130,799	3.13	\$3,128
CII Incentives	\$682,094	\$1,827,021	\$127,068	\$381,203	5.37	4.79	\$52,587	20.19	\$305
Pre-Rinse Nozzle Giveaway	\$497,102	\$4,679,974	\$68,677	\$68,677	7.24	68.14	\$31,795	11.20	\$241
CII Surveys	\$698,369	\$1,807,527	\$1,016,541	\$1,101,253	0.69	1.64	\$420,694	20.64	\$2,389
HEU Program	\$90,511	\$90,511	\$310,418	\$463,711	0.29	0.20	\$280,082	2.30	\$5,792
Public Restroom Faucet Retrofit	\$570,578	\$1,614,886	\$1,402,670	\$1,749,009	0.41	0.92	\$281,277	21.29	\$3,902
School Retrofit	\$160,146	\$160,146	\$58,654	\$102,102	2.73	1.57	\$15,356	5.47	\$581
Landscape Ordinance	\$249,750	\$249,750	\$58,953	\$1,070,159	4.24	0.23	\$21,013	7.93	\$382
Res SF Turf Removal A	\$52,724	\$52,724	\$565,985	\$2,517,659	0.09	0.02	\$140,286	1.35	\$17,920
Res SF Turf Removal B	\$79,086	\$79,086	\$1,697,956	\$4,039,965	0.05	0.02	\$420,858	2.03	\$35,839
Res MF CII Turf Removal A	\$19,181	\$19,181	\$283,059	\$1,318,973	0.07	0.01	\$67,950	0.50	\$24,534
Res MF CII Turf Removal B	\$28,772	\$28,772	\$849,178	\$2,110,229	0.03	0.01	\$203,850	0.75	\$49,069
Expand Irr Survey Water Budgets	\$60,744	\$60,744	\$415,962	\$702,832	0.15	0.09	\$111,771	1.75	\$11,157

Measure	Present Value of Water Utility Benefits	Present Value of Community Benefits	Present Value of Water Utility Costs	Present Value of Community Costs	Water Utility Benefit to Cost Ratio	Community Benefit to Cost Ratio	Five Years of Water Utility Costs 2015-2020	Water Savings in 2030 (MG)	Cost of Savings per Unit Volume (\$/MG)
Landscape Incentives	\$98,087	\$98,087	\$1,135,002	\$2,499,372	0.09	0.04	\$142,534	3.03	\$17,578
Controller Incentives	\$176,556	\$176,556	\$879,602	\$1,968,746	0.20	0.09	\$110,908	5.46	\$7,568
Sprinkler Nozzle Rebates	\$96,319	\$96,319	\$192,826	\$458,792	0.50	0.21	\$24,271	3.03	\$3,051
Gray Water Retrofit	\$14,649	\$14,649	\$77,209	\$183,705	0.19	0.08	\$21,043	0.43	\$8,206
Shade Tree Incentive	\$170,901	\$170,901	\$590,520	\$997,774	0.29	0.17	\$328,372	5.02	\$5,619
Rain Sensors	\$22,588	\$22,588	\$68,620	\$115,945	0.33	0.19	\$14,104	0.88	\$4,752
Support Residential Rain Barrel	\$137,972	\$137,972	\$239,479	\$404,637	0.58	0.34	\$84,172	4.80	\$2,857
Lrg Rain Catch Sys	\$163	\$163	\$4,494	\$14,479	0.04	0.01	\$941	0.01	\$42,988
Reduce Water Loss Optimized <sup>2</sup>	\$1,913,121	\$1,913,121	\$1,877,714	\$1,877,714	1.02	1.02	\$300,000	52.56	\$1,612
Water Rates Optimized	\$271,337	\$271,337	\$31,413	\$115,182	8.64	2.36	\$25,495	7.54	\$189
HECW Rebates B Optimized	\$1,397,091	\$4,863,623	\$2,134,870	\$5,184,685	0.65	0.94	\$469,883	49.20	\$2,483
HECW - New Dev Optimized	\$348,586	\$1,427,751	\$188,000	\$2,879,855	1.85	0.50	\$39,361	12.77	\$867
CII MF Common HECW Optimized	\$96,901	\$403,526	\$207,723	\$400,059	0.47	1.01	\$53,008	3.21	\$3,483
HEU Program Optimized	\$85,762	\$85,762	\$306,164	\$457,356	0.28	0.19	\$187,518	2.32	\$5,952

Measure	Present Value of Water Utility Benefits	Present Value of Community Benefits	Present Value of Water Utility Costs	Present Value of Community Costs	Water Utility Benefit to Cost Ratio	Community Benefit to Cost Ratio	Five Years of Water Utility Costs 2015-2020	Water Savings in 2030 (MG)	Cost of Savings per Unit Volume (\$/MG)
Public Restroom Faucet Retrofit – MUN	\$32,581	\$81,222	\$99,645	\$148,853	0.33	0.55	\$81,079	0.89	\$5,106
Public Restroom Faucet Retrofit – COM	\$187,674	\$1,766,856	\$874,700	\$1,090,676	0.21	1.62	\$0	7.83	\$7,243
Res SF Turf Removal A Optimized	\$39,500	\$39,500	\$441,335	\$1,963,181	0.09	0.02	\$56,417	1.35	\$17,607
Res MF CII Turf Removal A Optimized	\$14,554	\$14,554	\$223,317	\$1,040,514	0.07	0.01	\$27,535	0.50	\$24,128
WaterSense Giveaway (Plumbing Fixture Giveaway Optimized)	\$133,878	\$416,357	\$56,266	\$56,266	2.38	7.40	\$45,713	3.62	\$703

Notes:

<sup>1</sup> Not applicable for benefit-cost analysis given the accounting perspective is from the utility. The cost for implementation by the City is low and the cost burden is placed on the customer in the case of water rates.

<sup>2</sup> Measures designated as with letters “A” and “B” with “A” corresponding to current incentive level and limitations, and “B” designating a more intensive program offering. Measures designated as “Optimized” are indicative of a more feasible implementation schedule.



## 2.4.1 Program Scenarios

Using these 50 measures, staff and consultants assembled four potential conservation programs for Water Department consideration. Table 2 displays the conservation program scenarios considered in the DSS Model with their corresponding measures. The planning objective was established at the beginning of the project to select a program that maximized water savings based on total annual volume of water saved independent of sources of supply with a secondary objective of selecting more cost effective measures. The current planning effort has quantified the following four scenarios which all include the benefits of the passive plumbing code savings:

- Scenario 1: Program A – Current City Program – continue with a similar program as currently run by the City, which has been aggressive compared to other programs in the state (note already exceeding CUWCC and state goals)
- Scenario 2: Program B – Cost Effective & Customer Service Program – emphasizes the most cost efficient investment of rate revenue in the program, while still be aggressive with conservation investments.
- Scenario 3: Program C – Recommended to Maximize Savings Program – even more aggressive program that exceeds cost effectiveness to capitalize on the maximizing the most feasible to implement conservation measures for more water savings
- Scenario 4: Program D – All Measures Program – provides a benchmark for maximizing all measure modeled at the end use level to the extent allowable without exceeding saturation levels (based on estimates using information from the baseline survey and projected natural and incentivized replacement of plumbing fixtures and appliances).

**Table 2. Program Scenario Measures**

Measures	Program A "Current Program"	Program B "Customer Service & Cost Effective"	Program C "Optimized to Maximize Savings"	Program CREC "Recommended to Maximize Savings"	Program D "All Measures" - without exceeding saturation
Reduce Water Loss		✓	✓		✓
Reduce Water Loss Optimized				✓	
AMI		✓	✓	✓	✓
Water Rates		✓	✓		✓
Water Rates Optimized				✓	
General Public Information	✓	✓	✓	✓	✓
Public Info (Home Water Use Report)			✓	✓	✓
Res Leak Assistance		✓	✓	✓	✓
Res SF Survey	✓	✓	✓	✓	✓
Pressure Reduction					✓
Plumbing Fixture Giveaway	✓	✓	✓		✓
WaterSense Giveaway (Plumbing Fixture Giveaway Optimized)				✓	
Res HET Rebates	✓	✓			
Res UHET Rebates			✓	✓	✓
Direct Install UHET					
HECW Rebates A	✓	✓			
HECW Rebates B			✓		✓
HECW Rebates B Optimized				✓	
HECW - New Dev		✓	✓		
HECW - New Dev Optimized				✓	
Hot Water On Demand					
Hot Water On Demand - New			✓	✓	✓

Measures	Program A "Current Program"	Program B "Customer Service & Cost Effective"	Program C "Optimized to Maximize Savings"	Program CREC "Recommended to Maximize Savings"	Program D "All Measures" - without exceeding saturation
Dev					
Toilet Retrofit TOS	✓	✓	✓	✓	✓
CII MF Common HECW			✓		✓
CII MF Common HECW Optimized				✓	
CII Incentives	✓	✓	✓	✓	✓
Pre-Rinse Noz Giveaway		✓	✓	✓	✓
CII Surveys	✓	✓	✓	✓	✓
HEU Program	✓		✓		✓
HEU Program Optimized				✓	
Public Restroom Faucet Retrofit			✓		✓
Public Restroom Faucet Retrofit - MUN				✓	
Public Restroom Faucet Retrofit - COM				✓	
School Retrofit		✓	✓	✓	✓
Landscape Ordinance	✓	✓	✓	✓	✓
Res SF Turf Removal A	✓		✓		
Res SF Turf Removal A Optimized				✓	
Res SF Turf Removal B					✓
Res MF CII Turf Removal A	✓		✓		
Res MF CII Turf Removal A Optimized				✓	
Res MF CII Turf Removal B					✓
Expand Irr Survey Water Budgets			✓	✓	✓
Landscape Incentives					✓
Controller Incentives					✓
Sprinkler Nozzle Rebates			✓	✓	✓
Gray Water Retrofit			✓	✓	✓
Shade Tree Incentive					✓
Rain Sensors					✓
Support Residential Rain Barrel	✓	✓	✓	✓	✓
Lrg Rain Catch Sys					✓

Table 3 presents the benefit cost analysis summary for each of the program scenarios.

**Table 3. Program Scenario Comparison**

Conservation Program	Present Value of Water Savings	Present Value of Utility Costs	Water Utility Benefit/Cost Ratio	Water Savings in 2030 (MG)
<b>Program A - "Current Program" with Plumbing Code</b>	\$5,454,447	\$6,071,697	0.90	379
<b>Program B - "Customer Service &amp; Cost Effective" with Plumbing Code</b>	\$9,975,028	\$8,649,697	1.15	502
<b>Program C<sub>REC</sub> - "Recommended to Maximize Savings" with Plumbing Code</b>	\$10,231,858	\$14,497,567	0.71	548
<b>Program D - "All Measures" with Plumbing Code (not exceeding saturation)</b>	\$12,945,938	\$21,465,757	0.60	600

The Recommended Program C<sub>REC</sub> was selected to maximize the total volume of savings with a secondary priority of cost effectiveness. The Program C<sub>REC</sub> consists of both passive (plumbing codes which include state and Federal legislation for efficient fixture requirements for customers served by the City) and active elements. Plumbing code measures account for 44% of the future conservation potential achieved and is independent of any program. Recommended active measures for Program C<sub>REC</sub> fall within one of four categories: general measures, residential measures (indoor), commercial measures (indoor) and irrigation measures (outdoor). Table 4 summarizes the active elements of the recommended plan that will be combined with additional savings from plumbing codes and standards.

**Table 4. Summary of Active Elements for Recommended Program C<sub>REC</sub>**

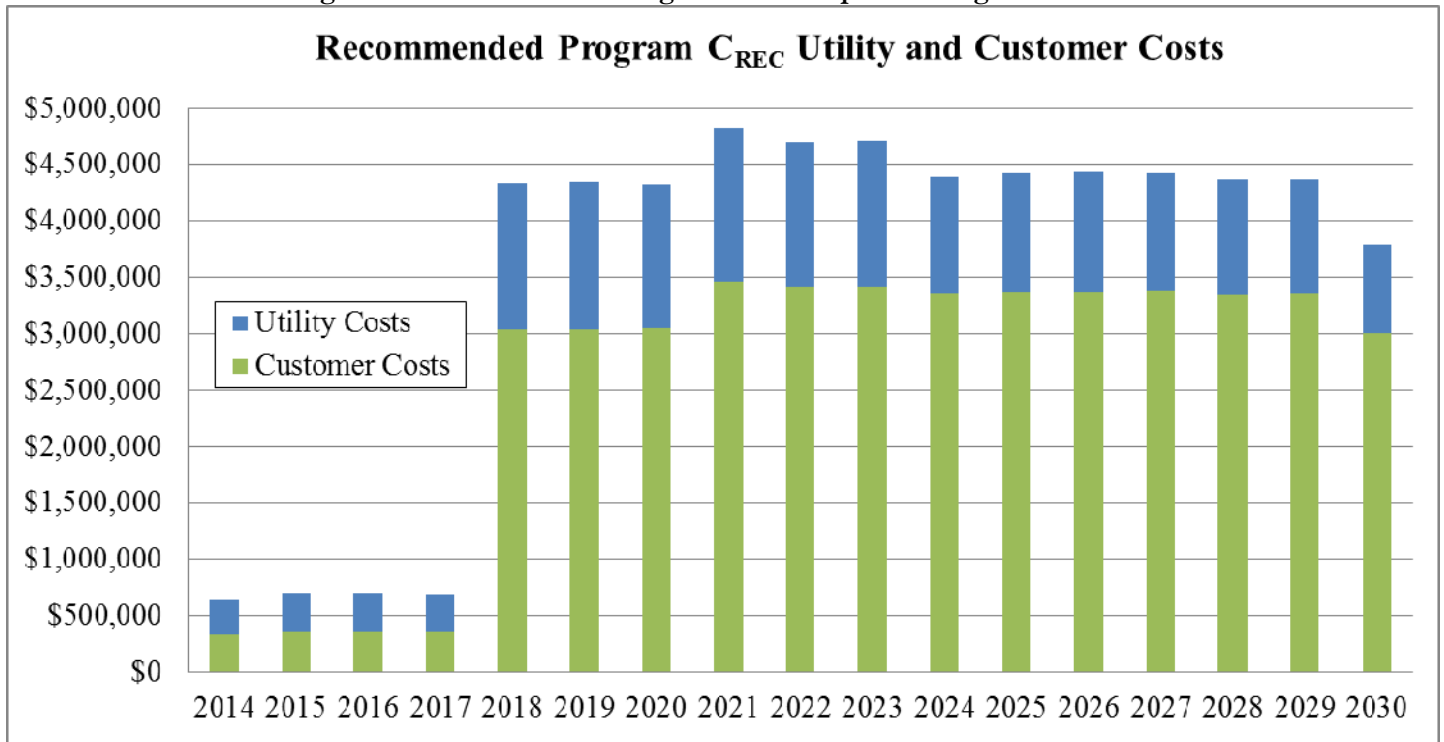
General Measures	Residential (Indoor)	Commercial (Indoor)	Irrigation (Outdoor)
Water Loss Control Program *	Real Customer Water Loss Reduction – Leak Repair and Plumbing Emergency Assistance *	CII MF High-Efficiency Washer Rebate *	City Code Requirement for New Landscaping
Install Advance Metering Infrastructure (AMI)	Single Family Water Surveys	Promote Restaurant Spray Nozzles	Residential Single Family Landscape Conversion or Turf Removal *
Water Budget Based Billing	High Efficiency Faucet Aerator/Showerhead Giveaway *	High Efficiency Urinal Program *	Residential Multifamily and CII Landscape Conversion or Turf Removal *
Public Information Program Including Various Outreach & Education Approaches	Residential Ultra High Efficiency Toilet (UHET) Rebates	School Building Retrofit	Expand Outdoor Water Survey and Water Budgets
Customer Billing Report and Service*	Residential Washer Rebate *	Customized Top Users Incentive Program	Rotating Sprinkler Nozzle Rebates
	Require High Efficiency Clothes Washers in New Development *	CII and MF Surveys and Top Water Users Program	Residential Gray Water Retrofit*
	Require Hot Water on Demand/Structured Plumbing in New Developments	Public Restroom Faucet Retrofit*	Provide Rain Barrel Incentive
	Toilet Retrofit at Time of Sale		

\*Measures modified or included based on May 5 Water Commission feedback.

Budget

Figure 5 presents the proposed Recommended Program C<sub>REC</sub> implementation budget.

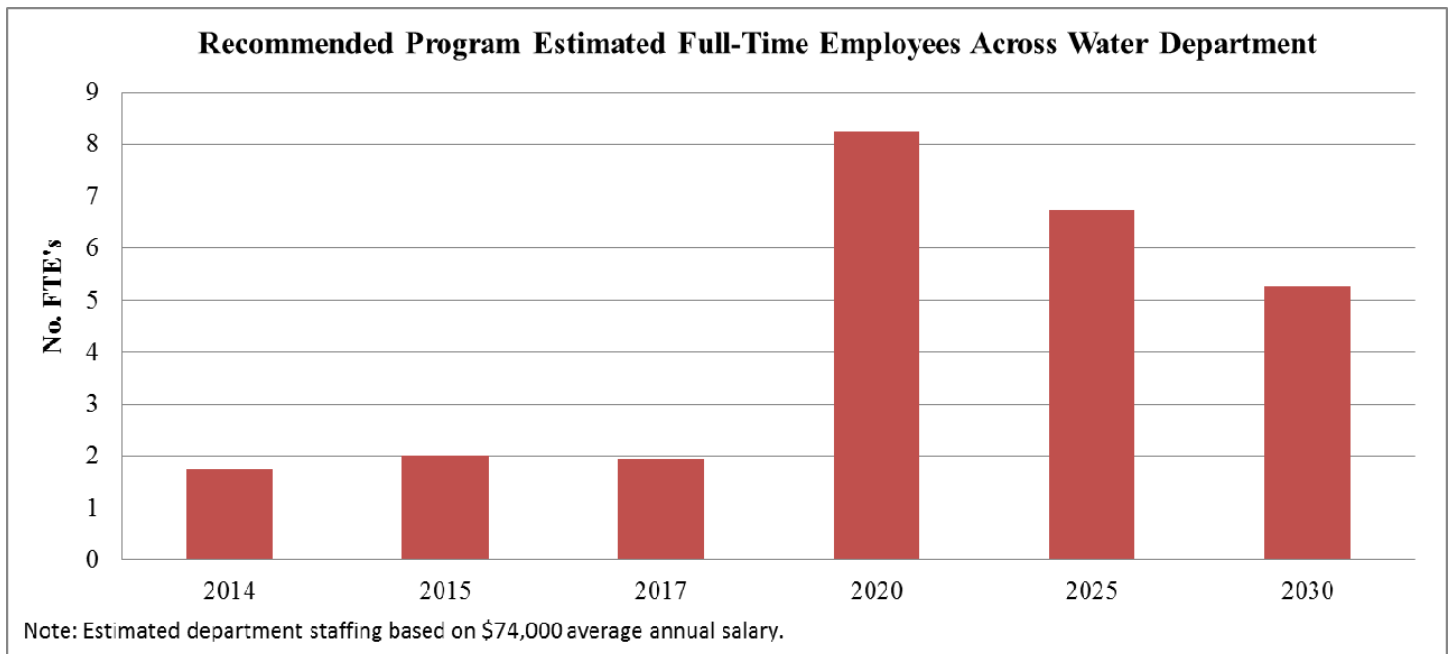
Figure 5. Recommended Program C<sub>REC</sub> Proposed Budget



Staffing

The following figure presents the proposed Recommended Program C<sub>REC</sub> implementation staffing plan.

Figure 6. Recommended Program C<sub>REC</sub> Proposed Staffing Plan



Schedule

Figure 7 on the following page presents the proposed Recommended Program C<sub>REC</sub> implementation schedule.

Figure 7. Recommended Program CREC Proposed Implementation Schedule

City of Santa Cruz Water Conservation Measure Implementation Schedule																			
Measure	Time Period	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AMI	2021-2040																		
General Public Information	2013-2030																		
Public Info (Home Water Use Report)	2018-2030																		
Res Leak Assistance	2018-2030																		
Res SF Survey	2013-2030																		
Res UHET Rebates	2014-2030																		
Hot Water On Demand - New Dev	2018-2030																		
Toilet Retrofit TOS	2013-2017																		
CII Incentives	2018-2023																		
Pre-Rinse Noz Giveaway	2015-2016																		
CII Surveys	2018-2023																		
School Retrofit	2018-2027																		
Landscape Ordinance	2013-2030																		
Expand Irr Survey Water Budgets	2015-2030																		
Sprinkler Nozzle Rebates	2018-2030																		
Gray Water Retrofit	2015-2030																		
Support Residential Rain Barrel	2013-2030																		
Reduced Water Loss Optimized	2018-2030																		
Water Rates Optimized	2018-2020																		
HECW Rebates B Optimized	2018-2029																		
HECW - New Dev Optimized	2018-2038																		
CII MF Common HECW Optimized	2018-2027																		
HEU Program Optimized	2018-2021																		
Public Restroom Faucet Retrofit - MUN	2018-2020																		
Public Restroom Faucet Retrofit - COM	2021-2030																		
Res SF Turf Removal A Optimized	2018-2030																		
Res MF CII Turf Removal A Optimized	2018-2030																		
WaterSense Giveaway (Plumbing Fixture Giveaway Optimized)	2018-2020																		

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**WATER DEPARTMENT  
MEMORANDUM**

DATE: October 2, 2014  
TO: Water Commission  
FROM: Toby Goddard, Administrative Services Manager  
SUBJECT: Extension of Stage 3 Water Shortage Emergency

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**RECOMMENDATION:** That the Water Commission recommend City Council adopt a resolution extending the Stage 3 Water Shortage Emergency.

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**BACKGROUND:** On February 25, 2014, the City Council adopted Resolution NS-28,753 declaring a Water Shortage Emergency for 2014. Water rationing and related restrictions on water use went into effect May 1 and are set to automatically expire on October 31, 2014. The overall goal this year was, and still is, to carefully budget scarce water supplies so that adequate carryover storage in Loch Lomond reservoir would be available in the event dry conditions persist into 2015.

**DISCUSSION:** The City of Santa Cruz, along with the rest of California, is currently facing one of the most severe droughts on record. Three years of below normal rainfall and runoff have significantly reduced available water supplies, and left the San Lorenzo River flowing at near record low levels this summer. The Santa Cruz community has responded positively to this challenge, collectively cutting back water use about 24 percent for the peak season to date compared to the same time period in 2012 and 2013. As a result, reservoir storage, while relatively low, is in comparatively better shape than was projected for this time of year. A primary water management objective this year was to end the season October 31 with the reservoir at or above 45 percent of capacity. While reservoir storage will continue to decline further this fall, it is on track to end the season somewhere between 55 and 60 percent of capacity.

Ordinarily, water rationing would expire automatically on October 31, 2014 which is the date set forth in the City Council resolution, for two reasons. One, system water demand typically tends to fall off quickly as the days grow shorter, the time changes, and temperatures drop. Two, early season storms can quickly help replenish stream flows. Both factors eventually reduce or eliminate the need for further withdrawals from Loch Lomond around the end of the October.

Despite better than expected water storage in Loch Lomond reservoir, staff is reluctant to let rationing automatically expire this October, for the following reasons:

- **Watersheds are parched.** After three successive years of below normal rainfall, the City's water supply watersheds are extremely dry, and flows are at or near record lows. It will take more than the usual amount of rain to replenish the watershed and restore stream flows in the creeks and San Lorenzo River to a level that can sustainably support daily demands on the water this fall/winter season.
- **No assurance of early winter rains.** Last year is a good example. Very little rain fell last year until early February. The three month outlook for the period October through December, 2014 issued by the National Weather Service Climate Prediction Center calls for below normal probability of precipitation for the region again.
- **Wrong message.** Letting water shortage regulations and restrictions expire automatically would inappropriately and prematurely signal to the community that water conditions are back to normal, when, in fact, the reservoir level is continuing to decline and the situation remains tenuous.

Much in the way that the Water Commission supported continuing Stage 1 water restrictions past October 31, 2013 and through the winter of last year, staff is recommending continuing the Water Shortage Emergency declaration and associated water rationing on a month-to-month basis. This would continue until such time that the Water Department determines, based on an evaluation of water conditions, and the Water Director announces that the City's flowing sources have been adequately restored to a level that safely and sustainably reduces or eliminates the need to draw on storage from Loch Lomond reservoir through the winter months (other than during periods of stormy weather when river water is untreatable due to high turbidity). This announcement would be publicized through the local media, the City's website, notes on utility bill, and other means.

Timing matters. Staff is proposing that the Water Director's announcement occur at the end of the month, between billing cycles. Once lifted, penalties fees would be quickly removed from the billing system. That way, any utility bills generated from that time forward would no longer be subject to excessive use penalties and would assure that all customers are treated the same in terms of the number of billing periods in which water rationing was in effect, regardless of what day of the month their service period begins and ends.

Staff understands and appreciates the difficulty that extending water rationing presents to the City's water customers. Although fewer customers are being penalized for excessive water use as the season progresses, there are some that still exceed their allotments and incur costly penalties each month. It also means extending the time and effort of many who are consciously working very hard to keep their water use low to avoid such penalties.

### 2015 Remains Uncertain

The most difficult aspect of a drought is that no one can tell how long it will last. At the upcoming Water Commission meeting, staff will present an analysis examining local rainfall, stream flows, cumulative runoff, and reservoir storage during the last major drought between 1990 and 1993. In short, based on where reservoir storage is projected to end this year, it



would take no less than 120 percent of average annual rainfall, and possibly more, to fully replenish the watershed, spill the reservoir, and eliminate the possibility of any shortage next year. Average annual rainfall is 31 inches in the City and about 50 inches in the watershed. Preliminary indications are that total annual rainfall amounts of 37 inches in the City or almost 60 inches in the watershed would be needed to restore stream flows through next summer and fall. Rainfall amounts closer to the long-term average would not suffice after a period of three dry years. According to the historical record, there is only a 24 percent probability of receiving that amount of rainfall in any one year.

Accordingly, staff is further recommending that the informational portions of the utility bill format related to rationing, including the text and graph showing the customer's monthly allotment amount, be maintained after the excessive use penalties have been discontinued for the season. This would serve as a reminder for customers to maintain awareness of their water use should the drought linger or worsen into 2015.

As has been the case for the last decade, staff plans to prepare a formal water supply outlook at the end of January 2015, followed by updates in February and March. What actions may be needed next year will depend on how the winter wet season shapes up between now and then.

#### Temporary Urgency Change Petition for Newell Creek Reservoir

On January 31, 2014, the City filed a petition with the State Water Resources Control Board to temporarily reduce the bypass flow amount from 1.0 to 0.2 cubic feet per second (cfs). On February 14, 2014, the State Water Board issued the order approving the change subject to specific terms and conditions. The order was renewed for another six months on August 13, 2014.

Staff is researching the effect that rescinding water rationing, assuming it happens later this fall or winter, would have on the State Board's order and on ongoing reservoir operations.

**FISCAL IMPACT:** Continuation of Stage 3 water restrictions past October 31, 2013 will have relatively minor effect on the City's Water Fund beyond \$3.25 million combined increased expense and revenue loss projected for FY 2014 and 2015. Extending rationing into the fall season would not materially change that estimate of revenue loss, since water use after October typically drops off quickly. Funds budgeted for temporary personnel services working on the 2014 drought response are currently adequate through about the end of October 2014. It is assumed that field enforcement of water waste and education/outreach activities will be transitioned back over to regular Water Conservation staff as planned at the end of October, so further funds are not needed for that activity. If workload in the Customer Service section continues past the end of October, the Department may return with an additional funding request.

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## WATER COMMISSION REPORT

DATE: October 1, 2014  
TO: Water Commission  
FROM: Nicole B. Dennis, Fiscal Officer  
SUBJECT: System Development Charges Presentation

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**RECOMMENDATION:** Provide input on System Development fee policies, review current fee structure and review potential fee structures suitable for the Santa Cruz Water Department.

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**BACKGROUND:** The attached Rate and Fee Issue Work Plan was agendaized to be discussed at the August Water Commission meeting however, due to a lack of a quorum, the City Council was asked and approved the Work Plan at their September 23, 2014 meeting. The Work Plan was carefully developed keeping in mind the other major work before the Water Department: Water Supply Advisory Committee, drought management, debt issuance, budget, and capital improvement planning and implementation.

Since many of the same staff will be working on the efforts listed above as well as the tasks detailed in the Work Plan, the Work Plan is sequenced to achieve the work in a reasonable timeframe. The schedule through the summer of 2016 is summarized below:

<b>Timeframe</b>	<b>Analyses</b>
October 2014-June 2015	System Development Charges
March 2015-June 2016	Cost of Service Analysis and Rate Structure Review and Design

The Work Plan begins with the review of the System Development Charges. These are the fees charged to new customers to “buy into” the existing infrastructure of the water utility and were last adjusted in 2004. System Development Charges (Fund 715) partially funds specific projects such as Water Supply Planning and the Bay Street Reservoir. System Development charges also funds conservation rebates such as: high efficiency toilets and clothes washing machines, lawn removal and beginning in FY 2015, grey water system installation. In the System Development Charge review process inclusion of a specific conservation fee to support longer term conservation efforts will be explored.

Beginning with the Water Commission’s October 6, 2014 meeting, the review of System Development Charges will begin.

DISCUSSION: In conjunction with the water rate increases, the City Council approved the attached Rate and Fee Issue Work Plan and added the following direction:

“The rate structure redesign process shall include Water Commission and City Council consideration of rate structure alternatives that include strong rate based incentives for conservation while ensuring fiscal stability. Initial concepts for alternative rate structures shall be presented to the council and commission in 2015 so that an alternative rate structure can be considered for adoption by the city council by no later than July 2016.”

Sanjay Guar of Raftelis Financial Consultants Inc., will present information contained in the attached PowerPoint and lead the policy discussion on System Development Fee options. This work represents the first step in the work plan approved by the City Council.

**City of Santa Cruz  
Water Department  
Rate and Fee Issue Work Plan**

Date	Task
August 25, 2014	Review the 2014-15 Rate and Fee Issue Work Plan with Water Commission
<b>System Development Fees</b>	
October 2014	<p><b>1. Policy Discussion</b> Goal: RFC will discuss the policy framework for the System Development Fees with Water Commission and key staff:</p> <ul style="list-style-type: none"> <li>a. Framework on the System Development and <ul style="list-style-type: none"> <li>i. How can Santa Cruz fairly accommodate growth, given ongoing drought conditions?</li> </ul> </li> </ul>
November 2014- January 2015	<p><b>2. System Development Fees</b> Task: Based on the policy direction received from the Water Commission, RFC will conduct the System Development and analysis.</p> <ul style="list-style-type: none"> <li>a. Workshop to be held with the Water Commission.</li> </ul>
February-March 2015	<b>3. System Development results will be presented to the Water Commission.</b>
March 2015	<b>4. Recommended results will be presented to City Council.</b>
	<b>5. Fee Adoption</b>
April / May 2015	a. Report Development
May / June 2015	b. Fee Adoption
July 1, 2015	c. Fee implementation
<b>Water Rates</b>	
March 2015	<p><b>1. Policy Discussion</b> Goal: Establish the intent and objective(s) of the rate structure (i.e. what should the new rate structure accomplish?). This will be conducted by engaging the Water Commission and key staff in a Pricing Objective exercise, where they will rank the objectives that they believe are the most important.</p> <ul style="list-style-type: none"> <li>a. Trends on water rates structure</li> <li>b. Establish the goals and policy of the Water Commission <ul style="list-style-type: none"> <li>i. Water Commission and key staff will be asked to rank these goals/objectives</li> </ul> </li> </ul>
April-May 2015	c. Based on input provided from the Water Commission and key staff, RFC will present a framework for the rate structure best suited for each customer class.
	<p><b>2. Cost of Service / Rate Design</b></p> <ul style="list-style-type: none"> <li>a. Task: Based on the policy direction received from the Water Commission, RFC will develop the appropriate models that can examine different conservation rate structures by customer class. <ul style="list-style-type: none"> <li>i. Cost of Service / Rate Design <ul style="list-style-type: none"> <li>1. Several webinars and staff meetings will be conducted during this time period</li> </ul> </li> </ul> </li> </ul>
June-October 2015	
November-January 2015	<ul style="list-style-type: none"> <li>b. Workshop with Water Commission / City Council <ul style="list-style-type: none"> <li>i. Present the draft results and receive input from Water Commission and, potentially, City Council.</li> </ul> </li> </ul>

February 2016 March 2016 Spring 2016 July 1, 2016	<b>3. Rate Adoption</b> a. Prop 218 Notice b. Report Development c. Rate Adoption/Prop. 218 Public Hearing d. Rate implementation
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# **WATER SYSTEM DEVELOPMENT CHARGE**

**WATER COMMISSION  
OCTOBER 6, 2014**

# Agenda

- What is a System Development Charge?
- Methodologies
- Current Development Charge
- Demand Offset Fee
- Case Study: Soquel Creek Water District
- Recommendation
- Discussion





**° SYSTEM DEVELOPMENT  
CHARGES**

# System Development Charges 101

- What is a System Development Charge?
  - One-time capital charge assessed against new development to either reimburse existing customers for available capacity or help finance all or a part of the capital improvements needed to serve the new development
  - Commonly known as capacity charges, connection fees, impact fees, etc.
- As summarized in the American Water Works Association (AWWA):
  - *“The purpose of designing customer-contributed-capital system charges is to prevent or reduce the inequity to existing customers that results when these customers must pay the increase in water rates that are needed to pay for added plant costs for new customers”*

Objective - **“GROWTH PAYS FOR GROWTH”**

# Regulatory Framework

- **Assembly Bill (“AB”) 1600** (codified as California Government Code Sections 66000 – 66008) as well as 66013, 66016, 66022, and 66023:
  - “. . . water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed . . . .”

# Regulatory Framework

- **Santa Cruz Municipal Code Section 16.04.041:**
  - Basically states that System Development Charges must be based on the cost of providing services to new developments. The requirements reflect those stated in the Government Code.

# Rationale Nexus Required by Law

- Fees on new developments must establish a **rationale nexus** between the needs of the new development and associated benefits
- Fees may not exceed the proportional share of costs associated with providing service



 **METHODOLOGIES**

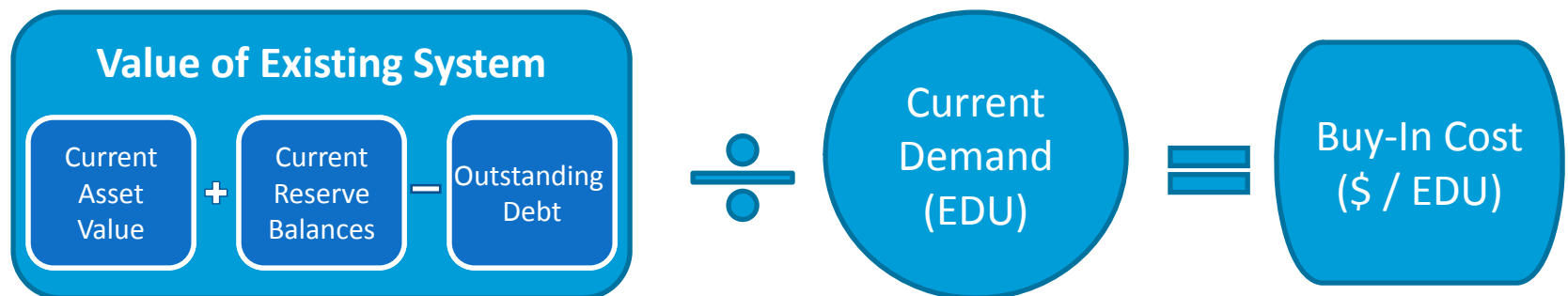
# Connection Fee Methodologies

- There are three (3) industry-accepted methodologies
  - System Buy-In Method
  - Incremental Cost Method
  - Hybrid Method

# System Buy-In Method

Focuses on Total Value and Capacity of Existing System

- Recognizes that existing users have developed and maintained a utility system that can accommodate growth:
  - Value of the assets need to be determined:

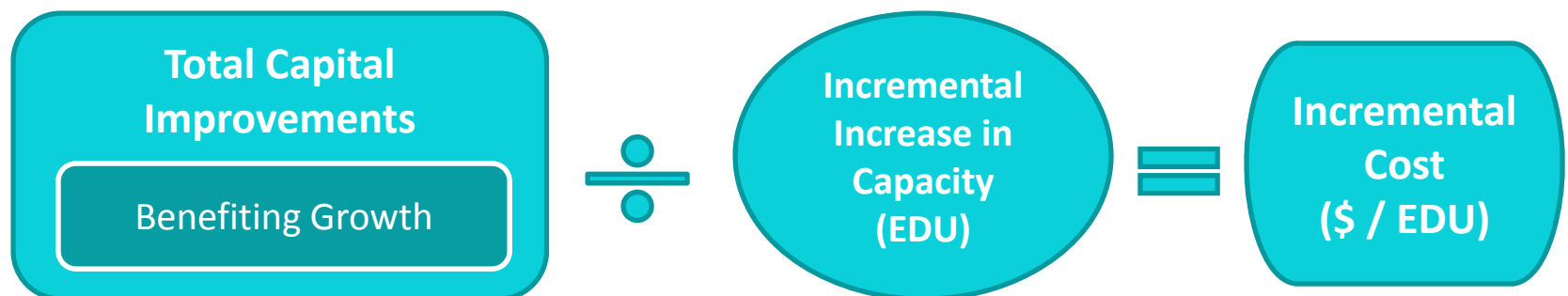




# Incremental Cost Method

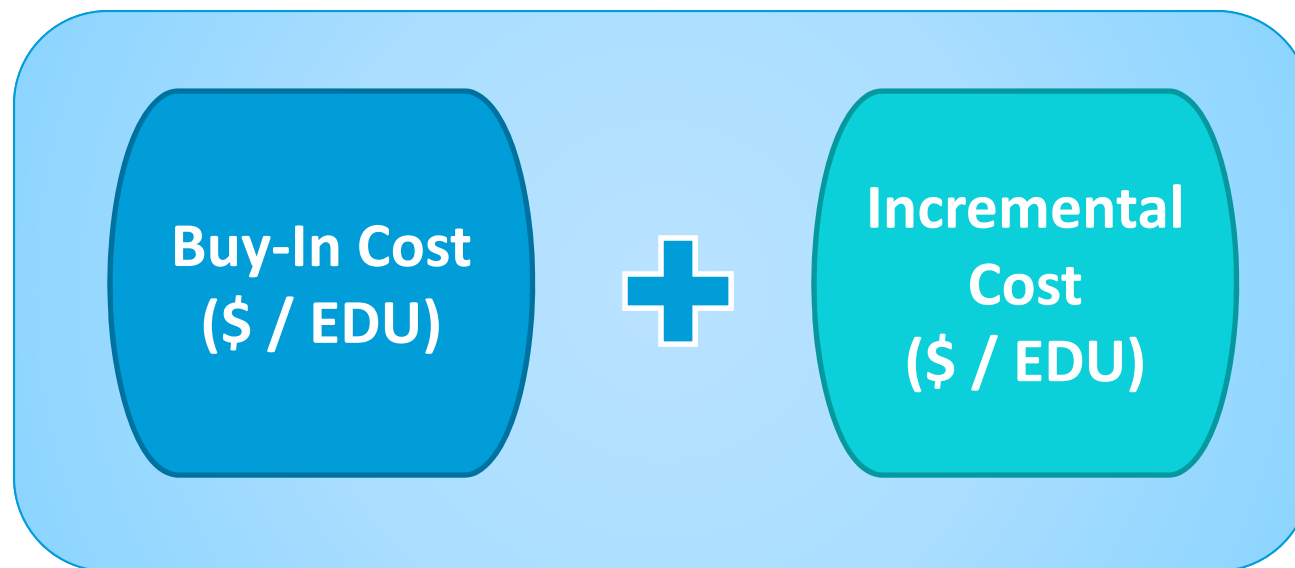
Recovers Growth Portion of Capital Plan

- Focuses on the cost of additional facilities included in the Capital Improvements Program (CIP), developed to ensure that new customers pay for additional capacity requirements



# Hybrid

- Combination of Buy-In and Incremental Methods





**° CURRENT SYSTEM  
DEVELOPMENT CHARGE**

# Approach

- Hybrid Methodology
  - The following component costs were determined

Plant Component	\$/ERU
Raw Water	\$ 493.42
Treatment Plant	\$ 3,797.28
Pumping	\$ 759.03
Storage	\$ 132.62
Transmission and Distribution Plant	\$ 1,938.35
General Plant	\$ 171.19
Debt Service Credit	\$ (757.74)
Total System Dev. Charge	\$ 6,534.15
<b>Net System Development Charge</b>	<b>\$ 6,530.00</b>

# SDC for Other Types of Res. Developments

- Not all customers are served by a single meter therefore the development charge was based on usage characteristics
  - Single Room Occupancy (SRO)
    - ~ 2 persons per unit and no outdoor usage (50% of SFR which was 4 persons per unit)
  - Accessory Dwelling Units (ADU), Apartments, Condominium
    - Assumes little to no outdoor usage and therefore estimated to be about 30% lower than SFR

# Current Development Charges

Meter Size	Water System Development Charge <sup>1</sup>
5/8" x 3/4"	\$ 6,530.00
3/4"	\$ 9,795.00
1"	\$ 16,325.00
1 1/2"	\$ 32,650.00
2"	\$ 52,240.00
3" Compound	\$ 104,180.00
3" Turbo	\$ 114,275.00
4" Compound	\$ 163,250.00
4" Turbo	\$ 195,900.00
6" Compound	\$ 326,500.00
6" Turbo	\$ 408,125.00
8" Compound	\$ 522,400.00
8" Turbo	\$ 587,700.00
10" Compound	\$ 750,950.00
10" Turbo	\$ 946,850.00

<sup>1</sup> Allocated to meter size based on AWWA safe operating capacities

Single Room Occupancy	\$ 3,265 Per unit
Assessory Dwelling Units	\$ 3,918 Per unit
Apartments, Condos	\$ 4,571 Per unit



 **CONSIDERATIONS**

# Sustained Drought

- February 25, 2014 – City Council passed resolution declaring **Stage 3 Water Shortage Emergency**
  - Mandatory overall water conservation of 25%

**How can we allow development to continue while faced with a limited water supply?**



# Water Demand Offset Fees

- ***Funding mechanism to create potable water supply*** to offset demand created by new development
- Current Demand – Potable Water Savings + New Demand = Net Demand
  - Under Water Demand Offset Program (WDOP)
    - New Demand = Water Savings
    - Net Demand = 0



# **CASE STUDY**

## **SOQUEL CREEK WATER DISTRICT**

# Soquel Creek Capacity Charge

- New water service charges include Service Connection, Meter Charges, and Water Capacity Charges
- Water Capacity Charge - based on Meter Size

Meter size	Charge
5/8 inch meter or 1 inch restricted meter	\$11,200.00
1 inch meter	\$28,000.00

# Soquel Creek Water District:

## Water supply shortage

- The Soquel Creek Water District Board declared a Stage 3 Water Shortage Emergency and a Groundwater Emergency
- The District has recently adopted a Water Demand Offset Program

# SCWD Water Demand Offset (WDO) Program – 100% Conservation

- Developers would pay for conservation projects that would reduce water use by 200% of anticipated use
- The rate at which developers will pay for the WDO offsets is \$55,000 per acre-ft

# Policy Recommendations

- Evaluate development charge based on the buy-in or hybrid approach
- Develop a water demand fee based on the conservation master plan

# Discussion



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## WATER DEPARTMENT MEMORANDUM

DATE: September 22, 2014

TO: Water Commission

FROM: Rosemary Menard  
Water Director

Nicole B. Dennis  
Principal Management Analyst

SUBJECT: Provide Input on the Draft Work Plan for the Review of System  
Development Charges, Cost of Service Analysis and Rate Redesign

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### Information Item:

Attached is a copy of the Draft Work Plan submitted to Water Commissioners on August 25, 2014; due to a lack of quorum at that meeting this item has since gone to City Council on September 23, 2014 and is included as an informational piece.

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### BACKGROUND/DISCUSSION:

The Water Department last completed a Cost of Service Analysis in August 2004 which was the basis for five, annual rate increases beginning in 2005. Also completed in 2004 was a review of System Development Charges which also resulted in changes to the fee schedule in 2005.

The Water Department intends to complete a review of the System Development Charges and a Cost of Service Analysis over the next 20 months as indicated in the attached Rate Work Plan. After the completion of these two components of a comprehensive cost and rate analysis, the Department, with input from the Water Commission and key stakeholders, will embark on a Rate Redesign. Target completion date for all the work is the late winter, early spring of 2016. Potential Public Hearing noticing as required by California State Proposition 218 would be conducted in the spring of 2016 for implementation on July 1, 2016.

The proposed timeline is consistent with the direction provided by the City Council at their July 22, 2014 meeting. Their motion follows:

1. Set a public hearing on the proposed increase of water use rates, the drought cost recovery fee, and the drought cost recovery fee schedule for September 23, 2014 and approve mailing of written notices, substantially in the form of the attachment, to water service customers regarding the proposed increases and the planned public hearing; and
2. Directed staff to bring to the public hearing both the original Water Commission recommendation and an alternative approach that provides for a rate increase for only the initial 21 months of rate increases and the completion of the water commission's study of rate structure that would incorporate stronger rate-based incentives for reduced water use while achieving revenue to meet infrastructure needs and taking into account social equity concerns and this alternative approach will return to the City Council within 18 months.

The first step in complying with the Council's direction is to create a work plan to accomplish the necessary work. The draft work plan includes a Cost of Service Analysis, Rate Redesign and a review of System Development.

The Water Department's financial consultants and rate revenue model architects, Raftelis Financial Consultants, Inc., will be assisting the Department with this work.

**POSSIBLE MOTION:**

1. Endorse the proposed work plan to complete a Review of System Development Charges, Cost of Service Analysis and Rate Redesign which encompasses the direction provided by the City Council at their July 22, 2014 meeting.

**City of Santa Cruz  
Water Department  
Rate and Fee Issue Work Plan**

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August 25, 2014	Review the 2014-15 Rate and Fee Issue Work Plan with Water Commission
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February 2016 March 2016 Spring 2016 July 1, 2016	<b>3. Rate Adoption</b> a. Prop 218 Notice b. Report Development c. Rate Adoption/Prop. 218 Public Hearing d. Rate implementation
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**DATE:** September 17, 2014

**TO:** WSAC and Water Commission

**FROM:** Rosemary Menard

**SUBJECT:** Concept paper on Modeling and Forecasting Working Group

It is clear to me from a variety of inputs that there is significant interest on the part of members of the WSAC and possibly their constituents and the Water Commission in issues related to the modeling and forecasting tools that the City uses in water supply planning. The Water Department and its technical contractors have developed a variety of modeling, forecasting and analytical tools that are used in modeling the water system and forecasting its performance and demands under various future scenarios. The tools used by the Water Department that are particularly relevant to water planning include the following:

- Hydrologic model for surface water resources;
- Confluence model for system reliability analyses and system performance forecasting;
- Water demand management Program planning and analytical model; and
- Water demand forecasting model<sup>1</sup>.

Due to the importance of the role of these tools in the water planning activities we are currently conducting, I want to create a planned and organized way for interested members of the WSAC, the constituent groups represented by the WSAC and the Water Commission to develop a level of understanding and, ideally, confidence in the modeling, forecasting and analytical tools the City is using.

To work toward the achievement of this outcome, I want to create a working group that includes members of the WSAC and the Water Commission who are interested in learning more about these tools and who are willing to invest the time necessary to do so. I propose to open this working group to public members of WSAC constituency groups so that WSAC members who are participating and have members of their group who want to or need to be included can participate directly with the group. In recommending this expanded participation, I am specifically seeking to avoid placing WSAC or Water Commission members in the position of having to be a go-between between interested individuals and the learning and understanding that it will be the goal of this effort to develop.

In recommending this approach, it is important for everyone to understand that I have no expectation that challenging questions and issues about the models the City uses won't emerge. By recommending that we work with citizens to explore how these models work, what their inputs and outputs are, and

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<sup>1</sup> The existing approach to water demand forecasting will be included in the scope of this working group. In addition, I have given direction to our WSAC consulting team to begin work on an econometric demand forecasting model that will be used for future demand forecasting beginning with the work on updating the Urban Water Management Plan next year. An econometric demand forecasting model will give the City an opportunity to include economic factors such as price and income in demand forecasting, which should improve the accuracy of the forecasts. The working group will have an opportunity to provide input to the consultant team on the development of the new econometric demand forecasting model.

the model strengths and weaknesses, which all such tools have, I am implicitly acknowledging that we are open to learning about citizen concerns and issues about the models and analytical tools we use in water planning. I am also acknowledging that we are open to taking steps to address those issues where feasible and necessary. That said, and just to be clear, I am not agreeing that working group members will exercise any final decision-making authority over what models and analytical tools the City uses in water planning or the data inputs that are used in these models. I do not want anyone to view this statement as anything more than a practical limitation that is being openly communicated up front. And I do want people to recognize that by agreeing to form and support such a working group in the first place, I am willingly opening to public scrutiny what many consider to be the mysterious “black boxes” that drive outcomes for water policy.

The timeframe for the performance of this working group is now, with membership defined by the conclusion of the Water Commission meeting on October 6, 2014.

A work plan and schedule for the working group will be developed by City staff in collaboration with relevant members of the consulting team. The timeline for completion of the working group’s activities will be December 19, 2014. This timeline is necessary to allow modeling results to be produced for use by the WSAC during the real deal phase of their work.

DRAFT