CITY OF SANTA CRUZ
City Hall
809 Center Street
Santa Cruz, California 95060

WATER COMMISSION

Regular Meeting

September 14, 2020

7:00 P.M. GENERAL BUSINESS AND MATTERS OF PUBLIC INTEREST, COUNCIL CHAMBERS/ZOOM

COVID-19 ANNOUNCEMENT: This meeting will be held via teleconference ONLY.

In order to minimize exposure to COVID-19 and to comply with the social distancing suggestion, the Council Chambers will not be open to the public. The meeting may be viewed remotely, using the following source:

Facebook Live: https://www.facebook.com/SantaCruzWaterDepartment/?epa=SEARCH_BOX

PUBLIC COMMENT:
If you wish to comment during on items 1-5 during the meeting, please see information below:

- **Call any of the numbers below. If one number is busy, try the next one. Keep trying until connected.**
  +1 669 900 9128
  +1 346 248 7799
  +1 253 215 8782
  +1 301 715 8592
  +1 312 626 6799
  +1 646 558 8656

- Enter the meeting ID number: **932 1182 5811**
- When prompted for a Participant ID, press #.
- Press *9 on your phone to "raise your hand" when the Chair calls for public comment.
  - It will be your turn to speak when the Chair unmutes you. You will hear an announcement that you have been unmuted. The timer will then be set to three minutes.
  - You may hang up once you have commented on your item of interest.
  - If you wish to speak on another item, two things may occur:
    1) If the number of callers waiting exceeds capacity, you will be disconnected and you will need to call back closer to when the item you wish to comment on will be heard, or
    2) You will be placed back in the queue and you should press *9 to "raise your hand" when you wish to comment on a new item.

NOTE: If you wish to view or listen to the meeting and don't wish to comment on an item, you can do so at any time via the Facebook link or over the phone via Zoom.

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 public 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 arrangements can be made. The Cal-Relay system number: 1-800-735-2922.

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.

Call to Order

Roll Call

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.

Presentation – The Confluence of Science, Engineering and Operations: Loch Lomond Bathymetry, Dredging for the Inlet-Outlet Replacement Project, and Water Quality Management

Presented by: Ryan Basset, Water Resources Analyst and Isidro Rivera, Associate Professional Engineer

Consent Agenda (Pages 5 - 16) 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. Routine items that will be found on the consent agenda are City Council Items Affecting Water, Water Commission Minutes, Information Items, Documents for Future Meetings, and Items initiated by members for Future Agendas. If one of these categories is not listed on the Consent Agenda then those items are not available for action.

1. City Council Actions Affecting the Water Department (Pages 5 – 6)

Accept the City Council actions affecting the Water Department.

2. Water Commission Minutes from July 6, 2020 (Pages 7 – 14)

Approve the July 6, 2020 Water Commission Minutes.

3. Letter of Support for City of Santa Cruz WaterSMART Water and Energy Efficiency Grant Application for the Meter Replacement Program (Pages 15 – 16)

That the Water Commission support the Santa Cruz WaterSMART Water and Energy Efficiency grant application for the Meter Replacement Project.

Items Removed from the Consent Agenda

General Business (Pages 17 - 94) 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.

4. Update on Cost of Service Analysis (Pages 17 – 30)

A. Informational item from Commissioner Wilshusen on Inside-Outside Water Rate Differential along with Water Director's response.

Acknowledge receipt of information from Commissioner Wilshusen and Supervisor Leopold on water rate differentials for outside City customers.

B. Presentation from Raftelis Financial Consultants on work progress on the cost of service analysis.

Receive a status report about the progress of the Cost of Service Analysis work and provide feedback to staff.

5. Working Draft of the Water Shortage Contingency Plan (Pages 31 – 94)

Provide feedback to staff on the draft Water Shortage Contingency plan so that the draft can be finalized and brought back to the Commission for final review and action on October 5, or November 2, 2020.

Subcommittee/Advisory Body Oral Reports - No action shall be taken on this item.

6. Santa Cruz Mid-County Groundwater Agency

7. Santa Margarita Groundwater Agency

8. Ad Hoc Financial Planning Committee

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

Information Items

Adjournment

WATER COMMISSION
INFORMATION REPORT

DATE: 9/9/2020

AGENDA OF: August 24, 2020

TO: Water Commission

FROM: Rosemary Menard, Water Director

SUBJECT: City Council Actions Affecting the Water Department

RECOMMENDATION: Accept the City Council actions affecting the Water Department.

BACKGROUND/DISCUSSION:

August 11, 2020

Graham Hill Water Treatment Plant Concrete Tanks Replacement Project - Approval of Plans and Specifications, Authorization to Advertise for Bids and Award Contract (WT)

Motion **carried** to approve the plans, specifications and contract documents for the Graham Hill Water Treatment Plant Concrete Tanks Replacement Project, and authorize staff to advertise for bids and the Director to execute change orders within the approved project budget. The City Manager is hereby authorized and directed to execute the contract, as authorized by Resolution No. NS-27,563.

Graham Hill Water Treatment Plant Concrete Tanks, Design and Construction Support Services with West Yost Associates – Contract Amendment No. 5 (WT)

Motion **carried** authorizing the City Manager to execute Contract Amendment No. 5 for the Graham Hill Water Treatment Plant Concrete Tanks, Design and Construction Support Services Project with West Yost Associates (WYA) in a form approved by the City Attorney.

Meter Replacement Project - Approval of Plans and Specifications, Authorization to Advertise for Bids and Award Contract – Budget Adjustment, and Resolution to apply for a U.S. Department of the Interior Bureau of Reclamation Grant (WT)

Motion **carried** to approve the plans and specifications for the Meter Replacement Project (c701603) and authorize staff to advertise for bids and the Director to execute change orders within the approved project budget. The City Manager is hereby authorized and directed to execute the contract as authorized by Resolution No. NS-27,563.

Resolution No. NS-29,698 was adopted appropriating $2,390,000 from the Water Enterprise Operation (Fund 711) to fund the Meter Replacement Project.

Resolution No. NS-29,699 was adopted authorizing the Water Department to apply for a U.S. Department of the Interior Bureau of Reclamation grant under the WaterSMART Grants: Water and Energy Efficiency Grants for fiscal year 2021 Funding Opportunity.

Update on Staff Work Related to Project Labor Agreements and Community Benefit Strategies for Capital Improvement Projects (CM) (WT) (PW) (ED)

Motion **carried** to continue this item to on or before the September 8th Council meeting, understanding it may get postponed.

August 25, 2020

No City Council actions to report.

September 8, 2020

Approval of Contract Amendment Newell Creek Pipeline – Second, NCP-2, of the Master Service Agreement for California Environmental Quality Act Compliance and Environmental Permitting Services for the Newell Creek Pipeline Replacement Project Environmental Review and Permitting (WT)

Motion **carried** authorizing the City Manager to execute Contract Amendment Newell Creek Pipeline –Second, NCP-2, under the Master Service Agreement with Dudek for the Newell Creek Pipeline Replacement Project Environmental Review and Permitting Services in a form accepted by the City Attorney and to authorize the Water Director to execute future contract amendments within the approved budget.

PROPOSED MOTION: Motion to accept the City Council actions affecting the Water Department.

ATTACHMENTS: None.

CITY OF SANTA CRUZ
Water Department

Water Commission
7:00 p.m. – July 6, 2020
Council Chambers/Zoom Teleconference
809 Center Street, Santa Cruz

Summary of a Water Commission Meeting

COVID-19 ANNOUNCEMENT: This meeting was held via teleconference ONLY.

In order to minimize exposure to COVID-19 and to comply with the social distancing suggestion, the Council Chambers will not be open to the public. The meeting may be heard remotely via telephone by following the directions listed below.

PUBLIC COMMENT AND ORAL COMMUNICATIONS:
If you wish to comment on items 1-7, please see information below:

Call at the start of the item.

- **Call any of the numbers below. If one line is busy, try the next one.**
  - 1-669-900-9128
  - 1-346-248-7799
  - 1 253-215-8782
  - 1-301-715-8592
  - 1-312-626-6799
  - 1-646-558-8656

- Enter the meeting ID number: **941 9706 9279**
- When prompted for a Participant ID, press #.
- Press *9 on your phone to "raise your hand" when the Chair calls for public comment.
  - It will be your turn to speak when the Chair unmutes you. You will hear an announcement that you have been unmuted. The timer will then be set to three (3) minutes.
  - You may hang up once you have commented on your item of interest.
  - If you wish to speak on another item, two things may occur:
    1) If the number of callers waiting exceeds capacity, you will be disconnected and you will need to call back closer to when the item you wish to comment on will be heard, or
    2) You will be placed back in the queue and you should press *9 to "raise your hand" when you wish to comment on a new item.

NOTE: If you wish to listen to the meeting and don't wish to comment on an item, you can do so at any time via one of the three methods above.

Call to Order: 7:00 PM

Roll Call

Present: S. Ryan (Vice Chair), J. Mekis, A. Páramo, D. Schwarm, W. Wadlow

Absent: D. Engfer (Chair) - with notification
L. Wilshusen - with notification

Staff: R. Menard, Water Director; H. Luckenbach, Deputy Director/Engineering Manager; K. Petersen, Customer Service Manager; B. Pink, Environmental Programs Analyst II; I. Rivera Associate Professional Engineer; K. Fitzgerald, Administrative Assistant III; C. Galati, Administrative Assistant III

Others: 3 members of the public (via Zoom)

Presentation: None.

Statements of Disqualification: None.

Oral Communications: None.

Announcements: None.

Consent Agenda

1. City Council Items Affecting the Water Department

2. Water Commission Minutes From July 6, 2020

No public comments were received.

Commissioner Wadlow moved the Consent Agenda as amended. Commissioner Mekis seconded.

VOICE VOTE: MOTION CARRIED
AYES: All
NOES: None
ABSTAIN: None

Items removed from the Consent Agenda

3. WSAS Quarterly Work Plan Update

Why was an older climate change scenario GFDL2.1 A2 used for the ASR modeling work for scenarios 8.1 – 8.3?

- The groundwater model covering the mid-county basin is currently set up with two climate models: GFDL2.1 A2, which was the climate model used by the Water Supply Advisory Committee, and the "Climate Catalog", which was the climate scenario used by the Mid-County Groundwater Sustainability Agency. The first 9 groundwater scenarios run by the City for ASR and In Lieu projects used the former, and scenarios 10 and 11 use the latter. Because of the work the City is currently doing with the UMass/Raucher group (in terms of incorporating a myriad of climate futures in to the decision scaling process) no plan has been developed to incorporate newer climate models (e.g., CMIP5) in to the groundwater model.

- What's the distance between Beltz 8 and the new monitoring wells, and can you tell us more about the high arsenic levels that have been found in recent samples from Beltz 8 and the new monitoring wells? They are approximately 40 feet apart. While the arsenic

levels in Beltz 8 were within the range of historical values and below the maximum contaminant level, the arsenic concentrations in the new monitoring well were unexpectedly high, although they did decrease towards the end of Cycle 2. Cycle 3 was canceled to better understand if elevated levels are a result of leaching or a dissolution reaction occurring in the basin. Pueblo will continue to collect more data, analyze the aquifer mineralogy, and perform geochemical modeling to better understand the origin of the arsenic and implications for further piloting at Beltz 8. Pueblo is expected to submit preliminary findings in August.

The modeling of ASR in the Mid-County Basin showed that half of the scenarios are unfeasible due to water levels rising above the ground surface. How do these results inform our work on identifying and evaluating a Beltz focused ASR moving forward?

- Many of these modeling scenarios were infeasible because the initial injection rate levels for some of the wells were too high. In addition, some of the initial scenarios were also run with the assumption of the Pure Water Soquel project being operational and this may have influenced and increased water levels in the vicinity of some of the City's wells, reducing available room for additional water to be stored.

On page 24, what is the reason that tertiary water from the City's Wastewater Treatment Facility (WWTF) would not be treated to Disinfected Tertiary (sometimes referred to as Title 22 unrestricted recycled water) requirements before it would be sent to the Pure Water Soquel Chanticleer site?

- Ongoing source water monitoring of the influent to the City's WWTF has shown increasing concentrations of nitrite, ammonia and total organic carbon. The original Title 22 unrestricted recycled water treatment processes (i.e., granular media filtration followed by UV) is not capable of removing these constituents without the addition of more treatment components such as ozone. The nBAF system will remove these constituents.

How would water be transferred from the Chanticleer site to the Scotts Valley WRF in Alternative 3.B as stated in the graph on page 32?

- This graphic was taken from the July 2018 Phase 1 Recycled Water Feasibility Study and is not a specific proposal being evaluated at this time.

One member of the public commented.

Commissioner Mekis moved the staff recommendation on Item 3 as amended. Commissioner Schwarm seconded.

VOICE VOTE: MOTION CARRIED
AYES: All
NOES: None
ABSTAIN: None

General Business

4. Meter Replacement Program

Ms. Menard introduced Mr. Kyle Petersen for the presentation and discussion of the Meter Replacement Program.

Is the $12.5 million budgeted the FY 2021 the cost for the entire replacement?

- Yes, but the costs are spread out over several years.

What is the target age range for meters that will be replaced?

- We plan to replace all meters that six years or older. In addition to replacing old meters, another objective of the project is to reduce the number of meter reading systems and brands of meters to one. Currently, we are using six different meter reading modes to capture readings from three different brands of meters which makes reading and capturing meter reads complicated.

Under the In-House Labor scenario, it is estimated that it would take City staff 15 years to complete the replacement project. It is possible to develop a replacement program that is more predictable such as the water main replacements?

- The result we're aiming for is not a continuous replacement cycle, but an intermittent replacement cycle. With this approach, once the meters have been replaced and are homogenized into one system, we will be able to focus our staff on ongoing system operation and routine maintenance, which will be a more efficient and effective use of our existing staff.
- The goal is to reduce visits to the meter that occur outside of routine maintenance. These are called "off-cycle" visits, and they're a sure sign of inefficiency and rising cost. Ideally, once a new meter is installed, the equipment should perform reliably for 15 – 20 years. Then, at the end of that period, the utility should plan to replace the system. During the life of the system, it's important to track meter performance to be able to forecast the most opportune time to invest in a new system.

Can staff comment on potential staffing issues should this work need to be done under a Project Labor Agreement (PLA)?

- The targeted workforce for this project is unskilled with hired workers receiving on the job training. PLAs are about using (largely) unionized skilled labor, so the project is not a good match for that approach.

No public comments were received.

Commissioner Mekis moved the staff recommendation on Item 4. Commissioner Páramo seconded.

VOICE VOTE: MOTION CARRIED
AYES: All
NOES: None
ABSTAIN: None

5. Size and Probability of Potential Future Water Shortages and Water Shortage Contingency Plan Demand Reduction Strategy

Ms. Menard introduced the presentation and discussion on the Size and Probability of Potential Future Water Shortage Contingency Plan Demand Reduction Strategy.

Concerning investments in infrastructure, have projects such as upgrades to the treatment plant been analyzed to address storage issues?

- Yes. The benefits of upgrading the treatment plant will allow us to treat and store more of the higher turbidity water available to us during the winter.

How feasible is it to impose water restrictions during drought periods without impacting health safety?

- The reality is that stages beyond stage 3 are not feasible without having damaging impacts to the community, which is why we need to develop a plan that is a combination of supply development and demand reduction strategies. The data shows that regardless of what stage we find ourselves in, we need to have access to more water.

Mr. Ben Pink presented and discussed the Shortage Allocation Strategy.

Commissioners commented that introducing new incentives for water conservation and further enforcement of restrictions may be more effective in influencing the community to conserve water during water restrictions.

Ms. Menard commented that the Muni code does give the Department authority to enforce water restrictions when they are in effect. As with the 2014-2015 restrictions, the new reduction strategy will be accompanied by a communication strategy to educate the community on ways to reduce water use and achieve the needed water savings.

Commissioners questioned the plausibility of achieving water savings of up to 50% should stage 5 restrictions be put in place.

Ms. Menard responded that the state regulations for an Urban Water Management Plan require a five-stage reduction plan with reductions of ten percent per stage.

Commissioners commented on the potential financial impacts of high excess use fees coupled with annual rate increases on customers who may be experiencing hardships caused by the economic slowdown due to the coronavirus pandemic.

Mr. Pink responded that excess use fees have not yet been determined and will be evaluated as appropriate.

Ms. Menard added that customer sensitivity to the cost of water is an ongoing challenge that is continually being discussed because while we are trying to be sensitive to customers' financial situations, simultaneously we have critical pieces of infrastructure that require replacement or rehabilitation which, unfortunately, is costly. If we do not do this work, our water supply is even more vulnerable to drought conditions.

Commissioners commented that there should be a better notification system for alerting customers when they are close to or have exceeded their allotment.

What is the downside of using the allocation approach?

- Having a plan that is based entirely on allocation is uncommon. We typically see other agencies implement allocations at higher restriction stages. We currently have prescriptive measures for lower restriction stages, and only move to allotments at Stage 3 of the plan. Unfortunately, under our current situation, we need a plan that will maximize

achieving necessary savings from the beginning. Prescriptive measures can't accomplish this, so an allocation based strategy makes more sense for us.

How are excess use fees determined for multi-family residences that have a single meter? Can such facilities be retrofitted to accommodate individual meters?

- It is not feasible to retrofit multifamily meters to single meters at this point, and we still have more work to do to develop strategies for multi-family residents on single-meter systems.

What types of allotment scales can be utilized with the existing billing system?

- The current billing system has constraints that do not accommodate decimal allotments. The billing system is a part of the City's Enterprise Resource Planning (ERP), the main data management system used by the City so replacement is not being considered at this time.

How effective were penalties a large part of the 2014-2015 water restrictions?

- Mr. Petersen commented that when stage 3 water restrictions were implemented during the drought in 2014-2015, customers were given an allotment of 10 ccf. By the second month of the restrictions, we saw that most customers had reduced their usages to about 6 ccf. In retrospect, we believe that the water use dis-incentive produced by the application of excess use fees was an important factor in keeping customer use within their allotment.
- The penalties went into effect at Stage 3 and generated approximately $1.5 million in revenue from a combination of leaks and excess use charges. The City instituted a "Water School" program and continued its generous leak rebate policy, which resulted in all but about $500,000 being refunded The remaining penalty revenue was placed into the Emergency Reserve (Fund 717).

How are excess use penalties compliant with Prop 218?

- Excess use penalties that have been established as an administrative enforcement measure are not a water pricing mechanism and should not be considered as being a fee that can be paid for the right to use more water than is allocated. (See also Municipal Code Section 16.01.140.(c) at https://www.codepublishing.com/CA/SantaCruz/#!/SantaCruz16/SantaCruz1601.html#16.01)

Commissioners suggested that excess use fees could be assessed based on a scale of the number of CCFs that customers go over.

How is the revenue collected from excess use fees allocated?

- The revenue can be used to invest in water savings education, for example, "Water School", or other water projects. Also, to cover the lost revenue associated with reduced water sales during a drought, the City has developed a Drought Recovery fee that is applied as a fixed charge when the City Council declares a drought emergency.

Commissioners expressed support for the allocation approach and not implementing excess use fees during stage one restrictions.

One member of the public commented.

Is it possible to choose a different unit of measurement for meter reads and billing?

- The meters are programmed to provide readings in CCF so changing the unit of measurement would require reprogramming every individual meter in the system which would be a massive undertaking. Also, we are constrained by our billing system--it cannot accommodate a new unit of measurement.

6. Establish an Ad Hoc Subcommittee of Water Commissioners to Work with Staff on Revenue Forecasting and Financial Scenario Planning

Ms. Menard introduced the discussion on establishing an Ad Hoc Subcommittee of Water Commissioners to work with staff on revenue forecasting and financial scenario modeling and planning.

Commissioners Páramo, Mekis, and Wadlow expressed their interest in participating in the Ad Hoc committee.

Commissioner Páramo moved the staff recommendation on item 6. Commissioner Wadlow seconded.

No public comments were received.

VOICE VOTE: MOTION CARRIED
AYES: All
NOES: None
ABSTAIN: None

Subcommittee/Advisory Body Oral Reports

7. Santa Cruz Mid-County Groundwater Agency (MGA)
The MGA had a meeting on June 15th and adopted the budget and discussed the document that has been submitted to the state and whether the 19 individual comments that were received need to be responded to by the agency or the state. The clarification was made that the state would respond and that it has two years to either approve or return the plan for further revision.

8. Santa Margarita Groundwater Agency (SMGWA)
The SMGWA met on June 25th and discussed groundwater levels and the initial work on project management actions. Material and audio from this meeting can be found on the SMGWA website. The next meeting on July 23rd will focus on the technical working group on surface water and groundwater interactions.

One member of the public commented.

Director's Oral Report: There was a significant 14" water main break near the cross-section of Ocean Street and Dakota Ave last Thursday, which also happened to be the first day of the City furlough. The break caused the water level in the Filtered Water Tank at the Graham Hill Water Treatment Plant to drop from 28' to 5' in an hour. Water drained into the Branciforte flood control channel versus the street, which is not typical and is one of the reasons it was so difficult to locate and stop the leak. Residents in areas affected with the lowest water pressures, mainly on the Upper Eastside, were advised to flush their water systems as a precaution. Water pressure

was restored quickly and the main was replaced and back in service by the end of the day after all bacteriological tests were cleared.

Adjournment Meeting adjourned at 9:51 PM.

Respectfully submitted,

Katy Fitzgerald, Staff

WT Commission
AGENDA REPORT

DATE: 09/09/2020

AGENDA OF: 09/14/2020

DEPARTMENT: Water

SUBJECT: Letter of Support for City of Santa Cruz WaterSMART Water and Energy Efficiency Grant Application for the Meter Replacement Program

RECOMMENDATION: That the Water Commission support the Santa Cruz WaterSMART Water and Energy Efficiency grant application for the Meter Replacement Project.

BACKGROUND: At the July 6, 2020 meeting, the Water Commission received information about the proposed Meter Replacement Program implementation strategy and voted unanimously to recommend to the City Council that the staff-recommended program be implemented.
At the August 11, 2020 City Council meeting, the Council voted unanimously to approve the plans and specifications for the project, authorize staff to advertise for bids, and authorized the Water Department to apply for a U.S. Department of the Interior Bureau of Reclamation Grant under the WaterSMART program, Water and Energy Efficiency Grants for fiscal year 2021.

DISCUSSION: The Water and Energy Efficiency Grants Funding Opportunity provides funding for projects that result in quantifiable water savings and support broader water reliability benefits and goals. The stated objective of this funding opportunity is to "invite states, Indian tribes, irrigation districts, water districts, and other organizations with water or power delivery authority to leverage their money and resources by cost sharing with reclamation on projects that seek to conserve and use water more efficiently; …" As demonstrated by prior-year awardees, the City's meter replacement project is in line with the WaterSMART objectives.

FISCAL IMPACT: There are two funding-level opportunities: Funding Group I are for projects to be completed within two years of award and up to $500,000 and Funding Group II for projects to be completed within three years of award and up to $2,000,000. The City will be applying under the Funding Group II opportunity.

ATTACHMENTS:
1. DRAFT LETTER OF SUPPORT.PDF

CITY OF SANTA CRUZ

WATER DEPARTMENT
212 Locust Street, Suite A, Santa Cruz, CA 95060 ◆ Ph: 831-420-5200

August 25, 2020

United States Bureau of Reclamation
WaterSMART Water and Energy Efficiency Grant Program

Re: Support for City of Santa Cruz WaterSMART Water and Energy Efficiency Grant Application, Fiscal Year 2021, Meter Replacement Program

Dear Sir or Madam,

On behalf of the Santa Cruz Water Commission, I am writing to express strong support for the City of Santa Cruz's grant application to the Bureau's WaterSMART Water and Energy Efficiency Grant Program. The Santa Cruz Water Commission acts in an advisory capacity to the Santa Cruz City Council in all matters pertaining to the Santa Cruz water system including making recommendations with respect to water conservation and long-term supply reliability.

The City of Santa Cruz water supplies are all locally based with surface waters comprising 95% of the City's drinking water supply. The City is therefore highly susceptible to drought and other threats of a changing climate, particularly increased storm intensity and other variable weather that disrupt precipitation, recharge and evaporation patterns upon which the system was designed. With over 100,000 customers depending upon the Santa Cruz Water Department for their drinking water, a drought-resilient water system is a critical priority for the City.

The City of Santa Cruz is actively engaged in efforts to improve their water system by implementing a multi-pronged approach that includes demand management and supply augmentation. Among the lowest water consumers in the state of California, the City of Santa Cruz together with other water agencies in Santa Cruz County rely on demand management as part of their commitment to maintaining supply reliability as well as stewardship of their natural resources. The City Council-appointed Water Supply Advisory Committee (WSAC) formalized recommendations to the City Council in 2015 to include strengthened conservation and the evaluation and implementation of conjunctive use opportunities, at both the local and regional level. As a key component of the WSAC work plan, the 2017 Water Conservation Master Plan lays out the numerous measures to implement to achieve adopted conservation goals of an additional 200-250 million gallons. Advanced meter replacement is key to achieving this goal.

At its August 24, 2020 meeting the Water Commission unanimously approved a motion in support of the City of Santa Cruz WaterSMART Water and Energy Efficiency grant application.

Sincerely,

_____
Doug Engfer,
Chair, Santa Cruz Water Commission

WATER COMMISSION
INFORMATION REPORT

DATE: 9/9/2020

AGENDA OF: September 14, 2020

TO: Water Commission

FROM: Rosemary Menard, Water Director

SUBJECT: Informational Item on Water Rate Differential for Outside City Customers

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RECOMMENDATION: That the Water Commission acknowledge receipt information from Commissioner Wilshusen and Supervisor Leopold on water rate differentials for outside city customers.

BACKGROUND: In past water rate making processes over many, many years, the City has established a differential rate for those system customers living outside the City limits. Commissioner Wilshusen, as the Water Commission's representative of water system customers living outside the City limits, in collaboration with Santa Cruz County Supervisor, John Leopold, has prepared a memo summarizing the history of differential rates and presenting an argument for eliminating the water rate differential for outside city customers as part of the forthcoming rate development process. The Memo is included as Attachment 1.

The memo included a specific request for a written response from the Water Director. The Water Director's response is included as Attachment 2.

DISCUSSION: As indicated in Attachment 2, the Water Director has provided direction to the Raftelis and City staff working on the cost of service analysis to limit any further evaluation of a potential rate differential to a specific evaluation of the cost of distribution assets specifically serving outside City customers. This analysis would assess whether there is a cost that should be borne by customers served by those assets that is different from the cost of distribution system assets specifically serving inside City customers. This work is just now getting underway and will not be presented during Agenda item 4.B, which will focus on early work completed in preparing the cost of service analysis.

FISCAL IMPACT: None identified at this time. It should be noted that reducing or eliminating the water rate differential for outside city customers will result in increasing rates for inside city customers.

PROPOSED MOTION: Motion to acknowledge receipt of the information from Commissioner Wilshusen and Supervisor Leopold on water rate differentials for outside city customers.

ATTACHMENTS:
1. Memo from Commissioner Wilshusen and Supervisor Leopold on water rate differentials for outside City customers

2. Response from the Water Director to Commissioner Wilshusen and Supervisor Leopold on water rate differentials for outside City customers

MEMORANDUM

Date: June 5, 2020

To: Rosemary Menard, Santa Cruz Water Director

From: Linda Wilshusen, Water Commissioner representing Outside-City Customers, and First District Supervisor John Leopold

RE: Discontinuing the Santa Cruz Outside-City Water Surcharge

Purpose

The purpose of this memorandum is to outline a rationale for the City of Santa Cruz (City) to permanently discontinue the outside-City water surcharge (currently 14.5%) as part of the FY2022-2026 City water rate analysis and adoption.

Summary

As summarized here and described in more detail in the sections below, there is no legitimate rationale for continuing the outside-City water rate surcharge. This surcharge, while a City tradition, is not consistent with utility rate-setting requirements. The outside-City surcharge results in a subsidy to inside-City ratepayers, which is not allowed under State law.

1. ***Background and History of the Outside City-Surcharge***. A review of the historical record shows that for much of the nearly 90 years that the City has provided water service to urbanized or urbanizing areas outside of City boundaries, the surcharge rate has been based on 1) political considerations related to annexations, 2) the myth that outside-City ratepayers do not pay for water infrastructure, 3) Water Department budget shortfalls, and 4) lack of direct representation by non-City customers.

2. ***City Cost Allocation Plan.*** The City uses an internal cost allocation plan to ensure that all City departments pay their fair share of general City administrative, legal and financial costs. The Water Department pays its share of these allocated costs, and operates as an enterprise fund supported by ratepayers. There is no rationale for an outside-City water surcharge to cover general City administrative services.

3. ***Water Department Long Range Capital Investment Program and 10-Year Financial Plan.*** The current (2020) Plan includes nearly $600 million in capital costs related to major upgrades and rehabilitation of the Treatment Plant and Loch Lomond Reservoir, water conveyance and delivery, and new water supply systems. There is no rationale for outside-City customers to pay more for this systemwide overhaul/enhancement via continuing to levy the surcharge.

4. ***Rate Setting Process and Timeline.*** The City Water Department, together with consultants and the City Water Commission, is currently in the early stages of its

next 5-year rate setting process, expected to be implemented in July 2021. Utility rate setting relies on the analysis of the "cost of service by customer class." There is no documented basis to identify outside-City customers as a separate customer class.

5. ***Proposition 218, Proposition 26, and California Government Code 54999 Requirements.*** Utilities and other providers of government services are required to establish a "nexus" between the cost of providing services and rates by customer class, and to hold a public hearing on the proposed rates prior to adoption. The City must prove in its documentation that the rate structure meets the requirements of State law.

Background and History of the Santa Cruz Outside-City Water Surcharge

A 10% "surcharge" on water use was first levied on non-City customers in 1932 when the City of Santa Cruz extended water service through unincorporated Live Oak to 41st Avenue. This tax was justified as a "guaranteed return" on the City's investment (up to 1932) in the municipal water system.[1]

As water service was extended over time to other unincorporated areas surrounding the City, the City levied a surcharge of varying amounts for different areas. The wide range of these surcharges reflected location, service extension cost, Water Department budget needs, and the views of Council Members and City Administration on the desirability of service extensions to a particular area, including consideration of the likelihood of future annexation of that area to the City. The City modified the surcharges levied on various unincorporated areas over time, moving beyond the original "guaranteed return" concept to a more ad-hoc revenue strategy.

Sometimes the extensions were controversial: in 1954, the City Council adopted a policy opposing any future water service extensions.[2] In 1963, the City increased the outside-City surcharge to +25%; the Water Director at the time explained that "the differential will give the city working capital for water system improvements, and is justified by city residents' investment in the water plant, which is not shared by out-of-city users."[3] The statement that outside-City users were not paying for the water treatment plant was not true, but the myth that only City residents pay for City water system infrastructure nevertheless became a part of City water lore. The Graham Hill Water Treatment Plan, Newell Creek Dam, Loch Lomond Reservoir, and other major, water system improvements of that era were financed by a $5.5M water revenue bond in 1958.[4] By definition, all utility ratepayers pay for debt service on revenue bonds, as well as for system operations, maintenance, and other types of financing and services.

In 1967, a couple of years after the new University of California campus opened on the old Cowell Ranch and in anticipation of annexing Live Oak and 41st Avenue, the City purchased the Live Oak Beltz Water Company wells along Rodeo Gulch, adding a

[1] *Santa Cruz Evening News*, 1/12/32, p.2
[2] *Santa Cruz Sentinel*, 8/11/54, p.1.
[3] *Santa Cruz Sentinel*, 10/31/63, p.8.
[4] *Santa Cruz Sentinel*, 11/5/58, p.1.

groundwater resource to the City's surface water system. Former customers of the Beltz system were levied a +35% outside-City surcharge for increased reliability in the form of "higher and more uniform pressure".[5] By 1969, one argument in Live Oak for annexing to Santa Cruz was that water rates would drop substantially. In 1970, the Water Director told the Water Commission that "other means should be adopted for arriving at outside city rates, rather than simple percentage additions over city rates".[6]

By the mid-1970's however, Live Oak had not annexed to the City and 41st Avenue ended up being annexed to Capitola. The outside-City surcharge had increased to +50% by 1976, and that year, against the recommendation of its water consultants,[7] the City Council further increased the surcharge to a whopping +100%. The City Manager at that time noted that "the benefits of municipal ownership go to the people who are running the operation." He added, "The people inside the city are responsible for bond debts…since they are taking the risks they should get the benefits."[8] That myth, from the early 1960's, persists in City water rate setting policy to this day.

Reacting to double rates, a group of outside-City residents and business owners organized themselves in 1978 into a group called Double Rates Oppress people (DROP) and filed a class action suit against the City. The County of Santa Cruz joined in the suit, and in 1980, the City lowered the surcharge to +55%. From the late 1990's (post-Proposition 218) to 2016, the surcharge was about +28%. In 2016 (post-Proposition 26), the City determined that the outside-City tax rate should be 14.5% based on meter size and location of water infrastructure (see detail below about the 2016 rate setting process).

City Cost Allocation Plan

Cost allocation plans were required by the Federal government in the early 1970's as a way to systematize State and local government overhead rates charged to Federal grants and health and welfare funding programs.

The City of Santa Cruz had an internal cost allocation plan in place by 1979. The City's Cost Allocation Plan for distribution of general City administrative service costs includes city management, finance, legal, tech support, and personnel services. An updated cost allocation plan study was initiated in 2015, and the City's 2018 Budget FAQs noted: "The General Fund does allocate costs to the Enterprise Funds and Internal Service Funds for administrative services (HR, Finance, IT, City Manager, City Attorney) through its cost allocation plan...About 8% of personnel costs are recuperated through this plan."[9]

The Water Department operates as an Enterprise Fund, which means that its revenues (primarily from ratepayers) support 100% of water operations, maintenance, and capital costs. As noted, the cost to the City of providing City administrative services to the Water Department, and thus to its ratepayers, is paid via the City's annually-updated cost

[5] *Santa Cruz Sentinel*, 6/9/67, p.24.
[6] *Santa Cruz Sentinel*, 1/27/70, p.18.
[7] *Santa Cruz Sentinel*, 3/15/76, p.19. The consultants were Brown and Caldwell.
[8] *Santa Cruz Sentinel*, 5/5/76, p. 1.
[9] "Focus Group – Frequently Asked Questions (FAQs), Work in Progress – Examples of common City of Santa Cruz budget questions (as of 5/31/18)". City of Santa Cruz website, 2020.

allocation plan. All ratepayers are therefore paying the full cost borne by the City as the entity that hosts the Water Department.

The cost allocation plan model, which is used by all levels of government pretty much everywhere as a way to distribute general administrative costs, is particularly useful in a situation such as ours where some customers/ratepayers are not located within the boundaries of the utility's host entity. Outside-City ratepayers are able to pay their fair share of general administrative costs in the same way as inside-City ratepayers: via the City Cost Allocation Plan. However, this system doesn't work if outside-City ratepayers are levied a surcharge *above and beyond* the charge already included in the Water Department's budget via the cost allocation plan: in that case, outside-City ratepayers pay *more* than their fair share of general City administrative costs.

Therefore, once the City started applying a cost allocation plan charge to the Water Department,[10] an argument that the surcharge was a way for outside-City customers to pay for the City's general administrative costs would not have been valid.

Long Range Capital Investment Program and 10-Year Financial Plan

The Water Department's 10-year Draft Capital Investment Program and Long-Range Financial Plan/ProForma (2021-2030) estimates that $590 million in essential future capital costs will have to be paid by ratepayers over the coming decades. While State and Federal grants and discounted loans are expected to help cover projected costs and accompanying debt service, water rate increases over the coming era will be substantial.

Major improvements to the existing water system include:

- Complete rehabilitation and renewal of the 60-year old Graham Hill Water Treatment Plant, including water transmission pipelines to and from the Plant and improved storage, treatment and quality control systems.
- Replacement of key operational assets and systems at the Loch Lomond Reservoir and Newell Creek Dam.
- Development and construction of new water supply systems, including using the existing Beltz wells and wellfield along Rodeo Gulch in Live Oak for Aquifer Storage and Recovery projects.
- Significant storage and distribution system maintenance and upgrades, due to age.
- Ongoing water distribution and other systemwide improvements to ensure high water quality, water conservation, and system reliability.

There is no documented rationale for having outside-City ratepayers shoulder a significantly higher burden of these systemwide capital costs via continued application of an outside-City surcharge.

Rate Setting Process and Timeline

The City's water rate setting process has changed in recent years as data on best practices has become available and applied by the City during its analyses. The Water Department's

[10] The Water Department's current share of the City's Cost Allocation Plan is approximately $1.9M. The Department's rate revenue in FY2020-21 is estimated at $44M.

current rate setting process is assisted by Raftelis, a consulting firm that specializes in advising public and private utilities on industry practices.

Various methodologies have been used in the past to set City water rates, many of them controversial and not necessarily data-driven; this is similar to many public and private water districts throughout the country and world. The City currently establishes water rates on a 5-year schedule of annual adjustments/increases by customer class:

- Residential – Single-family
- Residential – Multi-family
- Commercial
- Irrigation
- North Coast agriculture
- UCSC

Generally speaking, the current rate setting process involves the following steps:

1. Update long-range financial plan/proforma, incorporating ongoing operations, maintenance, planned capital projects, and debt service.
2. Conduct cost-of-service analysis which considers how to distribute costs to users in proportion to their use of the system, with the goal that each customer class pays its own way without being subsidized by another class. This distribution considers water demand patterns by season, delivery systems, water supply and usage, fire protection requirements, and billing/customer service costs.
3. Balance competing pricing objectives through a participative process, with input from the Water Commission, the City Council, and the public:
   (not in priority order)
   a. Affordability
   b. Revenue Stability
   c. Equity
   d. Conservation
   e. Customer Understanding
   f. Administrative Ease
   g. Financial Stability
   h. Defensibility
4. Evaluate uniform and tiered rate structure options based on cost-of-service data and priority pricing objectives.[11]
5. Assign customer classes to two separate rate schedules: one for City ratepayers and one for outside-City ratepayers.[12] *This memorandum proposes to permanently eliminate this step from the rate setting process*.
6. Recommend an updated rate structure and schedule which finances the upcoming 5-year portion of the long-range financial plan.
7. Santa Cruz City Council adoption of water rates for FY2022-2026 (Spring 2021).

Outside-City Surcharge. Outside-City customers represent over 35% of all water customers in the Santa Cruz Water Department service area. We are located in urbanized,

[11] The City will be moving into this stage of the rate setting process in Summer/Fall 2020.
[12] City Water Department financial reports summarize water use by customer class. Rate revenue is not identified by customer class or inside-outside City in the Department's public budget and finance summaries.

unincorporated County areas which include Live Oak, Santa Cruz Gardens, Dominican Hospital and Dignity Health medical facilities, Sutter Health/PAMF medical facilities, Soquel Drive commercial corridor, Safeway/Home Depot, Pasatiempo, Branciforte Drive, Graham Hill Road, State Beaches, County Parks, schools, Capitola Mall and Kings Plaza in Capitola, and the D.A. Porath Sanitation Facility along Rodeo Gulch.

Until 2016 (the City's most recent 5-year rate setting process), outside-City rates had been determined by adding an ad-hoc, across-the-board "surcharge" onto the inside-City rates. As described in the Background section, over the nearly 90 years since the City started extending water service into adjacent unincorporated areas, the surcharge has ranged from +10% to +100% of the inside-City rates, regardless of customer class; for much of that time, the rate varied by area.

During the 2016 rate setting process and because of new State requirements, it was necessary for the Water Department to document how the outside-City rate is determined. The Water Department and its consultants proposed a system based on allocating existing water system infrastructure to inside-City and outside-City areas.[13] No rationale was presented for how divvying up existing water system infrastructure provided a legitimate basis for an outside-City surcharge.[14] The question about the rationale for having an outside-City surcharge *at all,* given decades of evidence that the surcharge is arbitrary, was sidestepped by the City at that time.

The outside-City surcharge for FY2017-2021 (the current rate period) was reduced from +27.5% to +14.5% by City Council action as a result of the Water Department's analysis.[15]

Proposition 218, Proposition 26, and California Government Code 54999

Proposition 218, Proposition 26, and California Government Code 54999 are the California statutes that govern how local government can levy taxes, fees, benefit assessments, and charges. Proposition 218 (1996) is a constitutional amendment that requires voter approval for a broader range of public service taxes, fees, assessments and charges than did Proposition 13 (1978), which focused on property taxes. Proposition 26 (2010) further distinguished between a tax and other charges levied by local governments. CA Government Code 54999 addresses distribution of capital costs to public entities.

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[13] Here's the math: "Equivalent Meter Units" (EMUs) were established based on the size and capacity of water meters in the inside and outside areas. Once water infrastructure was allocated by the Water Department to either exclusively inside (21%) or outside (16%) or shared (63%), the assets in the shared category were then further allocated to inside and outside based on the EMU ratio (65% inside, 35% outside). The sum of the total assets allocated to each area (shared assets + exclusive assets) was then divided by the EMU's by area, arriving at a cost/EMU by area. The differential between this cost ratio (15%) was proposed as the outside-City surcharge; the adopted 2016-2021 surcharge is +14.5%.

[14] If best practices suggest that allocating water infrastructure resources is a legitimate aspect of rate setting and defining customer classes, then the practice should be applied to the entire water service area during the customer class definition stage of the rate setting process. In fact, non-City residents pay, and have paid over the past seventy years, proportionately *more* for water system infrastructure, operations, and maintenance than City residents because of the surcharge. Non-residents have, therefore, been subsidizing City residents' (and businesses and UCSC) water use for decades.

[15] The surcharge between 2004 and 2016 (+27.5%) was about twice the adopted 2016 surcharge (+14.5%), and during the three decades prior, the surcharge averaged three to four times the 2016 rate.

Per Proposition 26, water fees paid by ratepayers are classified as "a charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product."[16] If it remains in the City's proposed rate plan for FY2022-2026, the outside-City water surcharge will have to be documented as consistent with this definition.

The Santa Cruz City Council makes the final decision on the water rate structure. Prior to noticing a public hearing to ratepayers for a water rate increase, the City must have a complete administrative record detailing the nexus between the cost of providing water service and the proposed rate structure. During the public hearing process, which involves a mailer to all ratepayers with an option to protest, ratepayers may indicate their agreement or disagreement with the proposed rate structure. The City carries the burden of proving that the rate structure is consistent with, and does not violate, State law.

In the event the outside-City surcharge is not permanently discontinued by City Council action prior to the Proposition 218 hearing, the information presented in this memorandum shall be considered part of the public record for the FY2022-2026 City of Santa Cruz Proposition 218 water rate approval process. [17]

Conclusion

As detailed in the information presented above, we assert that there is no legitimate way to rationalize the outside-City surcharge as consistent with State law. Without further arguing whether or not there ever was a legitimate rationale (beyond the very early concept of 10% return on investment, long since paid), nor requesting reparations for overpayments in the range of tens of millions of dollars caused by the earlier, deliberately arbitrary City water rate setting policies discussed above,[18] we request that the *City of Santa Cruz permanently discontinue the outside-City water rate surcharge as part of its water rate setting process for FY2022-2026.*

The Water Commission is set to continue the water rate setting process at its August 24, 2020 meeting. We would appreciate a written response to this request by August 7th, and would especially value corrections or clarifications you may have to the information presented herein.

Thank you very much for your consideration.

[16] *Proposition 26 and 218 Implementation Guide*, League of California Cities, May 2019, page 53.
[17] The information in this memorandum may be corrected, as necessary.
[18] During the time of the DROP suit in 1980, Santa Cruz County Counsel Dwight Herr told the Santa Cruz City Council that "the City owes the outside customers about a million dollars because of the excess rates charged during the past five years."[1975-1980] *Santa Cruz Sentinel*, 8/6/80, p.9.

From:	Rosemary Menard
To:	Linda Wilshusen (liveoaklinda@gmail.com); John Leopold
Cc:	Tony Condotti; Martin Bernal
Bcc:	Heidi Luckenbach; Sanjay Gaur; Nicole B. Dennis
Subject:	Requested response to the June 5, 2020 Memo on Inside-Outside Water Rate Differential
Date:	Thursday, August 13, 2020 11:34:00 AM

Hello Linda and John,

As I noted in my communication with you both last week, the policy analysis memo that was developed by Linda and submitted to me on June 5, 2020 provided a thorough review of the history of the inside-outside rate differential and raised a number of questions about how the City evaluated and set the differential in the 2016 Cost of Service Analysis and rate making process. Thank you for your efforts to pull this analysis together and please know that I appreciate the effort as well as the intent behind it.

As you both know, and as is the case for many topics important to municipal governance and decision making, we live in a world where policy setting and decision-making occur in a constantly evolving landscape heavily influenced by both judicial and legislative action. Prime examples of this phenomena include recent legislative actions related to the development of and water and waste water related connection fees associated with accessory development units and judicial actions related to camping in urban areas outside of established camp grounds. The development and application of law and policy related to Proposition 218 is certainly no exception to this evolving reality, and in this matter we have been advised that current legal interpretations of the applicability of Proposition 218 to rate differentials between similarly situated customers largely support your contention that rate differentials must be specifically supported by cost differentials.

As a result of this advice, I have directed staff to limit any further evaluation of a potential rate differential to a specific evaluation of the cost of distribution assets specifically serving outside City customers. I think it is reasonable to at least assess whether there is a cost that should be borne by customers served by those assets that is different from the cost of distribution system assets specifically serving inside City customers. The definition of the assets to be included in this analysis include all treated water distribution facilities, generally pipes, fire hydrants, metering facilities, pump stations, pressure reducing facilities, etc.; treated water transmission facilities, generally pipelines 10 inches or greater in diameter; and treated water distribution storage facilities. The result of this analysis has not begun at this point, but when it is completed the main objective will be to assess whether, due to lower density of connections, for example, as assessed through the use of the meter equivalent unit approach used in the 2016 analysis, there is a cost that should be borne by outside City customers as compared to the cost associated with the same kind of facilities serving only inside City customers.

If there is a cost differential, and if there is a decision to proceed with rate-making to include any differential, it will be narrowly rather than broadly applied to only those costs where a differential has been identified. Please note that I specifically and purposefully used the conditional “if” in these statements, as no final decision or recommendation about the final disposition of this matter has yet been reached.

Please don't hesitate to contact me if you have questions about this response or would like to discuss it further.

Best Regards

Rosemary

Rosemary Menard
Water Director
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Office: 831-420-5205
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WATER COMMISSION
INFORMATION REPORT

DATE: 9/10/2020

AGENDA OF: September 14, 2020

TO: Water Commission

FROM: Rosemary Menard, Water Director

SUBJECT: Agenda Item 4.B - Status Report on Cost of Service Analysis

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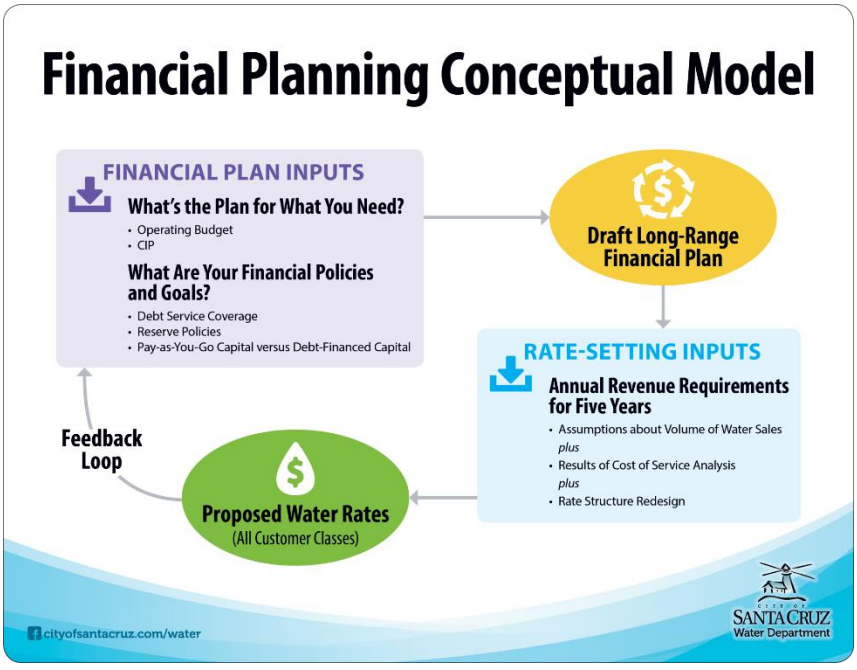
RECOMMENDATION: That the Water Commission receive a status report about the progress of the Cost of Service Analysis work and provide feedback to staff.

BACKGROUND: Beginning in early 2020, the Water Department initiated a Cost of Service Analysis and water rate study in anticipation of the potential need to propose future rate increases for City Council consideration and action in calendar year 2021. Commissioners have had the opportunity to receive information and participated in activities such as the water pricing objective exercise that occurred at the Commission's May 4, and June 1, 2020 meetings. The discussion topic at the Commission's August 24, 2020 meeting is a status update on the work on the Cost of Service Analysis that is underway.



The Cost of Service Analysis is a key element of both financial planning and the rate-making process. California's Proposition 218 requires rates or fees for "property related services" such as water service, to be set based on the cost of delivering the service. The Cost of Service Analysis is "backward-looking" using a recent base year so that actual costs can be used in the analysis.

The figure at the left shows the Department's Financial Planning Conceptual Model. In this model, the Cost of Service Analysis work is shown in the light blue box labeled "Rate-Setting Inputs." Other key inputs to both the Long Range Financial

Plan and Rate Setting process include revenue requirements, and the recently empaneled Water Commission Ad Hoc Subcommittee will be working with staff on some scenario planning efforts and will be reporting to the full Commission about its work at regularly scheduled Commission meetings.

DISCUSSION: Work on the Cost of Service Analysis is data-intensive and very detailed. In the presentation to be provided by Sanjay Gaur and the Raftelis team, Commissioners will have an opportunity to learn about the details of the methodology used in this type of analysis and see the results that have been developed.

The results of the pricing objective exercise previously completed by the Water Commissioners provided the critical foundation for Raftelis to develop several rate structure alternatives for consideration. During the past couple of months, Raftelis worked closely with Water Department staff to determine the methodology of and develop the framework for the Cost of Service Analysis. Raftelis also took time to explore the existing and proposed methodologies for the Inside/Outside Surcharge, Elevation Charge, and System Development Charges (SDCs) and established a methodology for the potential Wholesale Water Transfer Charge.

The Cost of Service Analysis process involves dividing both the operating budget and the capital assets into various Water Department-related functions, such as Transmission, Distribution, Treatment, Pumping, Conservation, Meters, Customer Service, etc. The Raftelis team is further refining this framework, which will be informed by ongoing discussions with Santa Cruz staff.

After the operating budget and capital assets have been categorized into the correct functions, they are then allocated to each of the cost causation components, which are the building blocks of the water rates. The cost causation components, often shortened to cost components, include categories such as:

- Average Delivery Costs (the costs associated with delivering water on an average day)
- Peak Delivery Costs (the costs associated with delivering water on the peak day and peak hour)
- Water Supply
- Elevation Pumping
- Meter
- Customer Service
- Etc.

The Raftelis worked closely with Santa Cruz staff to establish the proper methodology to allocate each of the functions to the proper cost components.

Raftelis and Santa Cruz staff also discussed the Inside/Outside Surcharge, Elevation Charge, and potential Wholesale Water Transfer Charge to determine a methodology for developing these charges later in the study. For each of these elements, the team identified:

- Operating expenses and capital assets related to each charge
- Units of service (for example, the number of equivalent meter units for Inside and Outside City customers or the annual estimates for the water transfer in acre-feet)
- The potential impacts to customer groups

Raftelis evaluated three industry-accepted methodologies for determining SDCs: the buy-in method (currently in use by the City), the incremental cost method, or the hybrid method. Given that the City's system is already built-out, the Raftelis team proposed maintaining the existing methodology. While the framework for the SDCs has been completed, Raftelis continues engagement with Santa Cruz staff to further refine the calculations.

In addition to the Cost of Service-related work, the Raftelis team developed a Strategic Communications and Community Engagement Plan (Plan) and a Customer Feedback Community. The team has conducted foundational research for the Plan, drafted the Plan's messaging platform and implementation timeline, revised the Plan based on restrictions in place due to COVID-19, and developed the functionality and scoping document for the Customer Feedback Community.

FISCAL IMPACT: None at this time.

PROPOSED MOTION: Motion to accept the status report on the Cost of Service Analysis and provide any relevant feedback to staff related to ongoing work.

ATTACHMENTS: None.

WATER COMMISSION
INFORMATION REPORT

DATE: 9/9/2020

AGENDA OF: September 14, 2020

TO: Water Commission

FROM: Rosemary Menard, Water Director

SUBJECT: Water Shortage Contingency Plan

RECOMMENDATION: That the Water Commission provide feedback to staff on the draft Water Shortage Contingency plan so that the draft can be finalized and brought back to the Commission for final review and action at its October 5, or November 2, 2020 meeting.

BACKGROUND: Beginning in late 2019, Water Department staff initiated work on revising and updating the Department's Water Shortage Contingency Plan (Plan). The existing plan was approved and adopted by the City Council in 2009 and was based on customer water use characteristics in the 2003-2004 time period. As described in the February 3, 2020 staff presentation to the Water Commission, customer water use characteristics have changed substantially since the early 2000s and this reality is a significant driver of the need to update the existing plan.

Other key driver for update the existing plan include changes that have occurred in State law following the historic statewide drought of 2012-2016. The California Legislature enacted into law Senate Bill 606. Among other things, this bill expanded the planning requirements for urban water suppliers to strengthen local drought resilience. It requires water suppliers to prepare, adopt, and periodically review a WSCP every five years as part of its Urban Water Management Plan, as well as new specific requirements for the contents of shortage plans, including the inclusion of six standardized shortage levels. Finally, Department staff have made significant progress in understanding the systems vulnerability to water shortages, with analyses of the probability and size of shortages under a variety of historic and climate change hydrological conditions providing valuable perspectives on conditions the system could face in the years ahead.

At the Commission's July 6, 2020 meeting, staff presented an approach to restricting demand in water shortage conditions that is substantially different from that in the existing 2009 Plan. This new approach emphasizes using customer allocations from the very beginning stages of Plan

implementation. Since that meeting staff has been working to develop and apply the allocation approach for all customer classes and preparing a working draft of the revised Plan.

DISCUSSION: Staff's goal for the Commission's September 14, 2020 meeting is basically to do a "close to final" check with Commissioners by providing this opportunity for review, discussion with and feedback to staff on the work completed to date. Staff's intent is to receive this feedback, incorporate it into the Plan, and return with the final draft Plan to the Commission on October 5, or November 2, 2020 for final review and action on a recommendation to the City Council.

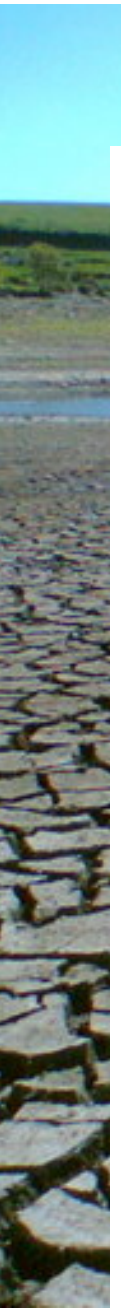
In addition to reviewing the Plan, staff wanted to take this opportunity acquaint Commissioners with the current provisions of the Municipal Code that relate to water shortages and implementing voluntary and mandatory demand reduction strategies. Should the Council adopt the revised Plan staff is developing, the Municipal Code would be reviewed and revised as needed to codify the provisions of the Plan and to ensure that the City has the appropriate authority needed to enforce the Plan provisions if and when they are implemented.

It is notable that current Section 16.01.020 requires the Council to adopt a resolution to declare a shortage and the necessary level of restrictions to be implemented. This provision of the Municipal Code would definitely be retained. Attachment 2 is a complete copy of Municipal Code Section 16.01.

FISCAL IMPACT: None

PROPOSED MOTION: Motion to provide feedback to staff on the draft Water Shortage Contingency plan so that the draft can be finalized and brought back to the Commission for final review and action at its October 5, or November 2, 2020 meeting.

ATTACHMENTS:
1. Working Draft – Updated Water Shortage Contingency Plan
2. Municipal Code Section 16.01 – Water Shortages Regulations and Restrictions



2020 Water Shortage CONTINGENCY PLAN

Working Draft

September 9, 2020

Written by Benjamin Pink
Environmental Programs Analyst

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City of Santa Cruz
Water Department

Table of Contents

Introduction

The 2020 Water Shortage Contingency Plan (WSCP) is an update of the City of Santa Cruz WSCP that was written in 2009. The existing WSCP contains a full description of the Santa Cruz water system and the local hydrology and water supply characteristics. The plan contains a description of how water shortages are evaluated and the steps in determining whether a shortage is imminent. All of that background material is still relevant today; the fundamental nature of the water supply situation in Santa Cruz hasn't changed significantly. Santa Cruz is still in danger of having a water shortage in a situation of very dry winters or multiple-year drought scenarios. This is due to the fact that the system has limited storage and relies on local surface water as the primary source of supply. These characteristics haven't changed.

What has changed since the existing plan was written in 2009 is the City's approach to solving the water supply challenge. The current Water Supply Augmentation Strategy (WSAS) contains a number of new elements that were not being considered at the time the excising WSCP was written. The new strategy focuses on in-lieu water exchanges, aquifer storage and recovery (ASR), advanced treated recycled water and/or desalination, as well as ongoing water conservation.

In addition to the changes to the water supply augmentation strategy, another significant change that has occurred since the time the prior WSCP was written is the new water conservation legislation at the state level, SB 606 and AB 1668. These new laws strengthen the requirements for WSCPs in Water Code 10632 for all urban water suppliers. Specifically, water suppliers are required to submit a five + stage WSCP by July 1, 2021 as part of 2020 Urban Water Management Plan (UWMP) update. Additionally, the new WSCPs are required to have ten components, including new standardized shortage stages. This update to the WSCP will briefly describe the new water efficiency framework for the State of California and the requirements in that legislation regarding the contents of a WSCP. The ten required elements of WSCP are descried in **Attachment 1** (Water Code Section 10632).

There are several other local characteristics of Santa Cruz related to water supply that are different now from when the prior WSCP was written. These include: increased commitments to providing water to support protection and recovery of threatened steelhead trout and endangered Coho salmon, greater recognition and integration into local water planning of the effects of climate change and the volatile nature of precipitation patterns, new conservation tools, experience in implementing the WSCP, and water rate increases almost continuously since 2005.

Core Principles

During the development of the 2009 WSCP, the City Water Commission developed a set of principles to guide the planning process. These principles remain the same today and have been used to guide development up this plan update. The principles are as follows:

- Shared Contribution: All customers will be asked to save their share in order to meet necessary reduction goals during water shortages.
- Reduce non-essential uses first: The plan concentrates on elimination of non-essential water uses and on outdoor reductions, and gives the highest priority to essential health and safety uses.
- Preserve jobs and the local economy: The plan limits actions that would have substantial impact on the community's economy and provides large users the flexibility to determine their own reduction strategies within a water budget.
- Existing conservation measures recognized: Customers that have already implemented water conservation measures are acknowledged to have less potential for reduction and should not be penalized for conserving.
- Communication at every stage: A public information campaign at every level of shortage is essential for customer preparation and will encourage confidence in the City's ability to respond to water shortages.

Relationship to Other Plans

This update to the WSCP is a stand-alone implementation plan for the purposes of managing a water shortage. It also constitutes one of several elements in the City's Urban Water Management Plan (UWMP), as required by State Law.

Water supply interruptions and shortages may result from a variety of causes, including facility failure, such as a major pipeline break, earthquake, flood, or other natural disaster. This plan specifically addresses longer-term water shortages that occur as a result of drought conditions that may extend several months or span several years in duration. For shorter-term emergency incidents or disasters, the Water Department maintains a separate Emergency Response Plan, which is subordinate to and compliments the Citywide Emergency Operations Plan, to guide

emergency operations response and recovery for shorter-term water supply interruptions and outages.

Updated Water Use Characteristics

One of the most significant changes between the 2009 plan and this update is the decline in system-wide water demand that has occurred over the last two decades. The existing plan uses customer water use levels and characteristics from 2002-2004 as the basis for normal (unconstrained) water demand. The 2002-2004 period was selected as being representative of typical water consumption patterns in a stable period marked by normal weather and water conditions. At the time, total annual water demand measured about 3.9 billion gallons per year. **The new plan uses the 2016-2018 as the base year period**. Total annual demand now measures about 2.6 billion gallons per year, a decrease of about 33 percent. Besides the overall reduction, changes have also occurred in the seasonality or shape of demand as well as the composition of use among and within various customer categories.

In addition to total system production, water demands during the 2016-2018 time period peak season production and peak daily production were significantly different from that in the 2002-2004 base period used in the earlier plan. Specifically, of peak season production, April through October, the average for years of 2002-2004 was 2,641 MG while for the years 2016-2018 it was 1,630 MG. This is a reduction of 38%.

The decline in peak season water use is significant in that it means less water is generally available for cutting back during times of drought. The peak season water usage represents irrigation and is typically thought of as an area of discretional use that can be more easily restricted during shortages compared to indoor use. On the other hand, generally speaking if overall system demand is lower, it means that total volume of shortages will be lower than would be the case under a higher peak season demand, resulting in a lower amount of drawdown to Loch Lomond, the City's only source of stored water. Higher carry-over storage in Loch Lomond means that the system is able to carry through storage through the winter making it available for the following season if the winter is a dry one. In terms of daily production, for the 2002-2004 period the average peak daily production was 15.3 MGD. For the 2016-2018 period the average peak daily production was 10.1 MGD. This represents a 34% reduction in peak daily production.

In Santa Cruz, it is typically the peak summer season during which water supplies are more limited because the system's flowing surface water sources, the source of

about 45% of total system supply, are less available during the peak season than they are in the wet season. In the existing WSCP, the peak season is defined as the seven-month period April through October. In this WSCP update, the peak season has been revised to only include the six-month period June through November, which reflects water actually consumed from May 1 to October 31st. The change to the definition of the peak season was made because water supplies are historically adequate to meet demand in April. In addition, water shortage regulations usually not in put into effect until May 1st or June 1st during a shortage year.

Figure 1 shows the daily water production for each year 2008 to 2019 in million gallons per day (MGD). The lower set of curves represent water production in years 2008-2013. The upper set of curves represent water production in years 2014-2019. The trend of lower water production in recent years is clear from the graph; both overall production and peak season production.

Figure 1 Daily Water Production, 2008 – 2019 (MGD)

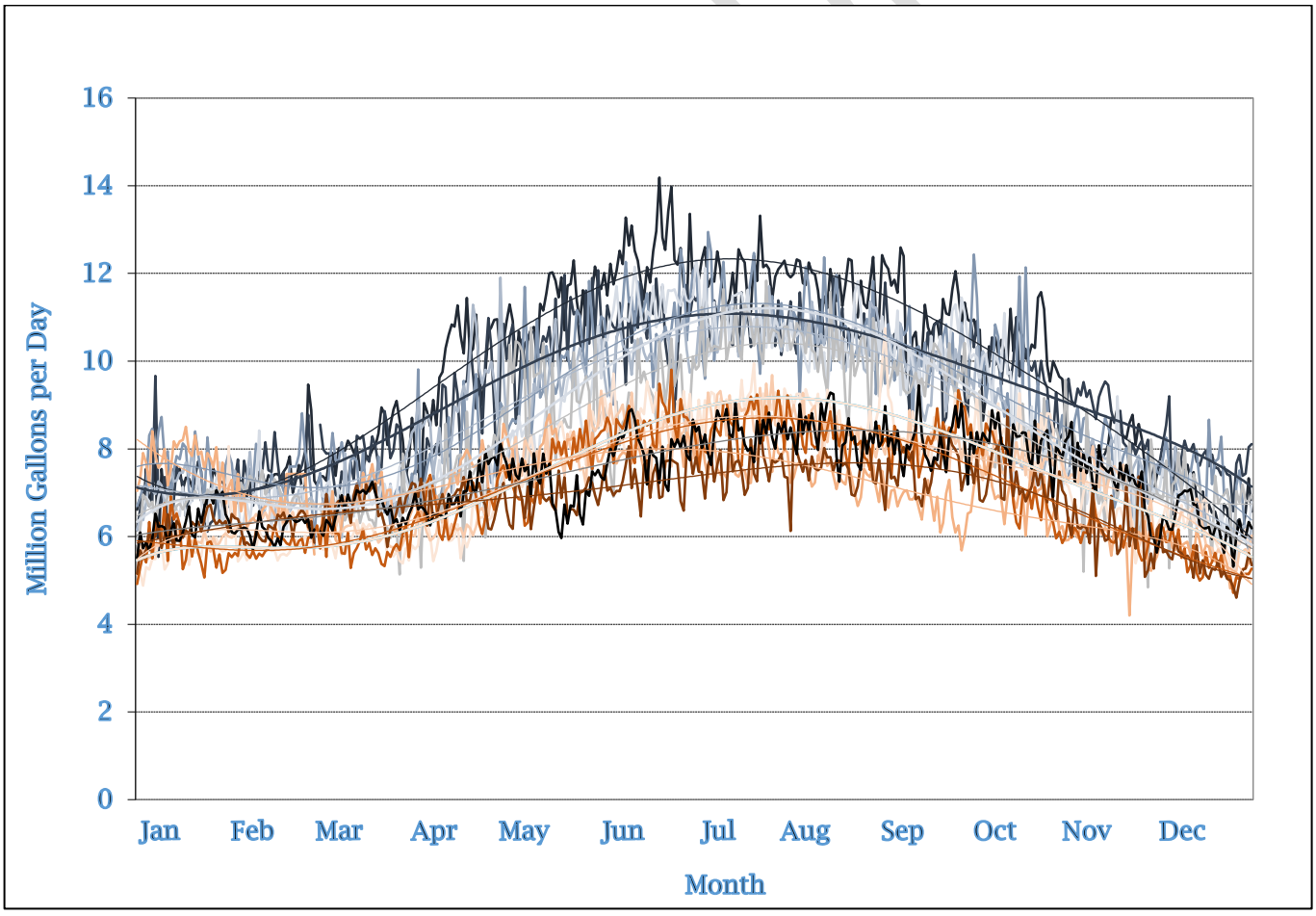


Table 1 shows the data for the older base year period for the existing WSCP compared to the new base year period for this WSCP update. One of the things that stands out about the new characteristics of water demand then vs. now is that while demand has decreased the population in the service area has increased by roughly 10,000 people.

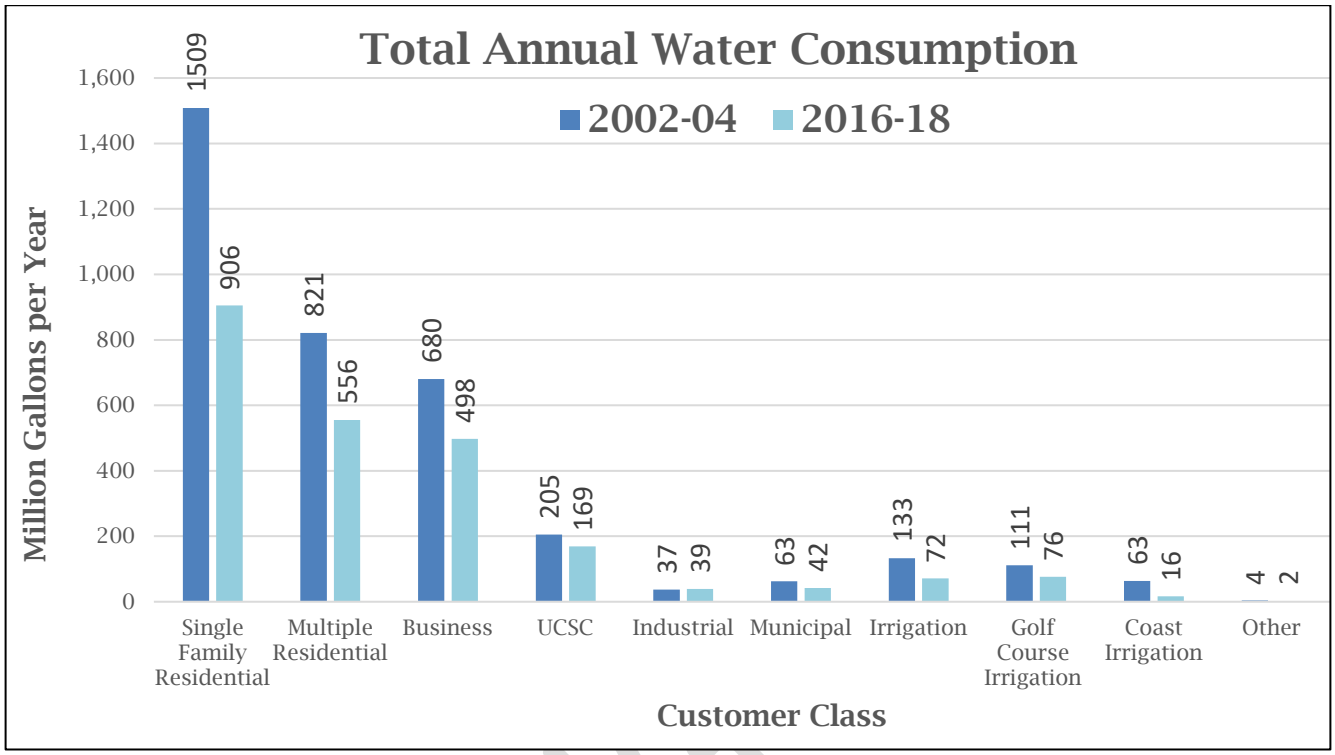
Table 1 Water Use Comparison Current Base Year Period vs. Old Base Year Period

	2002-2004	2016-2018	Change (Volume)	Percent Change	Direction
Total annual production (billion gallons)	3.9	2.6	-1.3	-33%	↓
Peak season production (billion gallons)	2.3	1.5	-0.8	-35%	↓
Peak month (million gallons)	467	270	-197	-42%	↓
Peak day (million gallons)	15.2	10.4	-4.8	-32%	↓
Average day during peak season (million gallons)	12.7	8.0	-4.7	-37%	↓
Population	87,000	97,000	+10,000	+11%	↑
Visitors (tourism)	?	?	?		↑

The new water demand characteristics, as well as the new state requirements for shortage plans, are the main factors that influence this update of the WSCP. The allocation scheme, which is a major update from the existing WSCP, is driven primarily by the new demand characteristics. In other words, if it were not for the new lower demand in the service area, the demand reduction approaches proposed here would probably be more akin to those in the existing plan. With the new demand however, those approaches are not sufficient or suitable, thus a new demand reduction approach had to be created that would ensure that necessary reductions would be achieved even given the low demand characteristics.

Figure 2 shows the comparison of water use by customer class between the old base year period from the existing WSCP compared to the new base year period for this update. What is clear from the figure is that use in the largest customer classes has significantly declined over the time period.

Figure 2 Water Use by Customer Class, 2002-2004 compared to 2016-2018



Updated peak season composition and allocation of water

An essential step in updating the WSCP is to determine how the available water supply should be allocated when a water shortage occurs. The process for coming up with a new allocation system was as follows:

1. Examining the level and seasonality of water use in each customer category, on a seasonal, monthly and annual basis & breaking down water use in each sector into indoor and outdoor/seasonal components;

2. Dividing the peak season usage into three usage priorities: 1) health and safety, 2) commerce, and 3) irrigation and other outdoor usage;

3. Reducing deliveries according to priority as needed to achieve the overall reduction target; and

4. Applying the percentage reductions to develop a specific reduction goal for each customer class at each stage of shortfall.

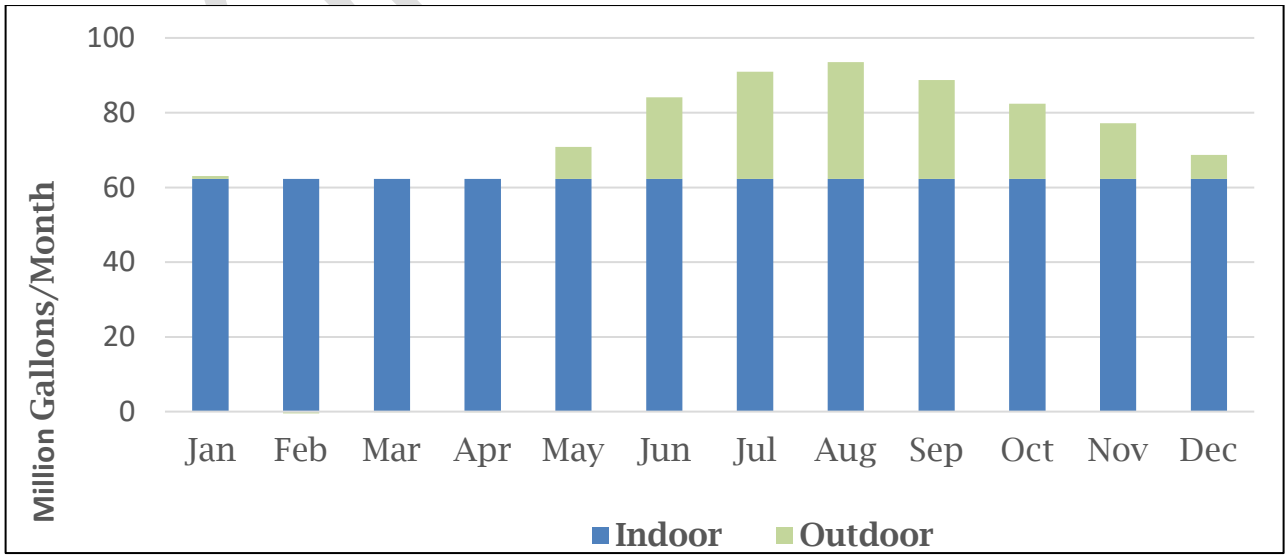
Each of these steps are described in more detail below.

Examining the level and seasonality of water use in each customer category

The process began with examining the seasonality of water use for each customer category. Using the customer sales data for the base year period 2016-2018, each customer group was analyzed for how water was used over the course of each month of the year. For the analysis, the average usage in each month was calculated for the three year base period.

For example, **Figure 3** shows the seasonal consumption composition of the single-family residential sector (SFR). SFR is the largest single customer category with the predominance of the total meters and total consumption. For the analysis, wintertime usage, which is defined here as the average of the usage in the months January through April, is used as a proxy for indoor use. This amount was held constant over the whole year; in Figure 2 you can see this amount plotted in blue for each month. The remainder of the usage in each month is considered to be outdoor usage. In Figure 3 the outdoor usage is plotted in green and does not appear until the peak season begins in the month of May (the May billing period contains consumption that occurs both in late April and the month of May). What the graph shows is that there is a relatively small component of overall water use in the new base year period that is outdoor use.

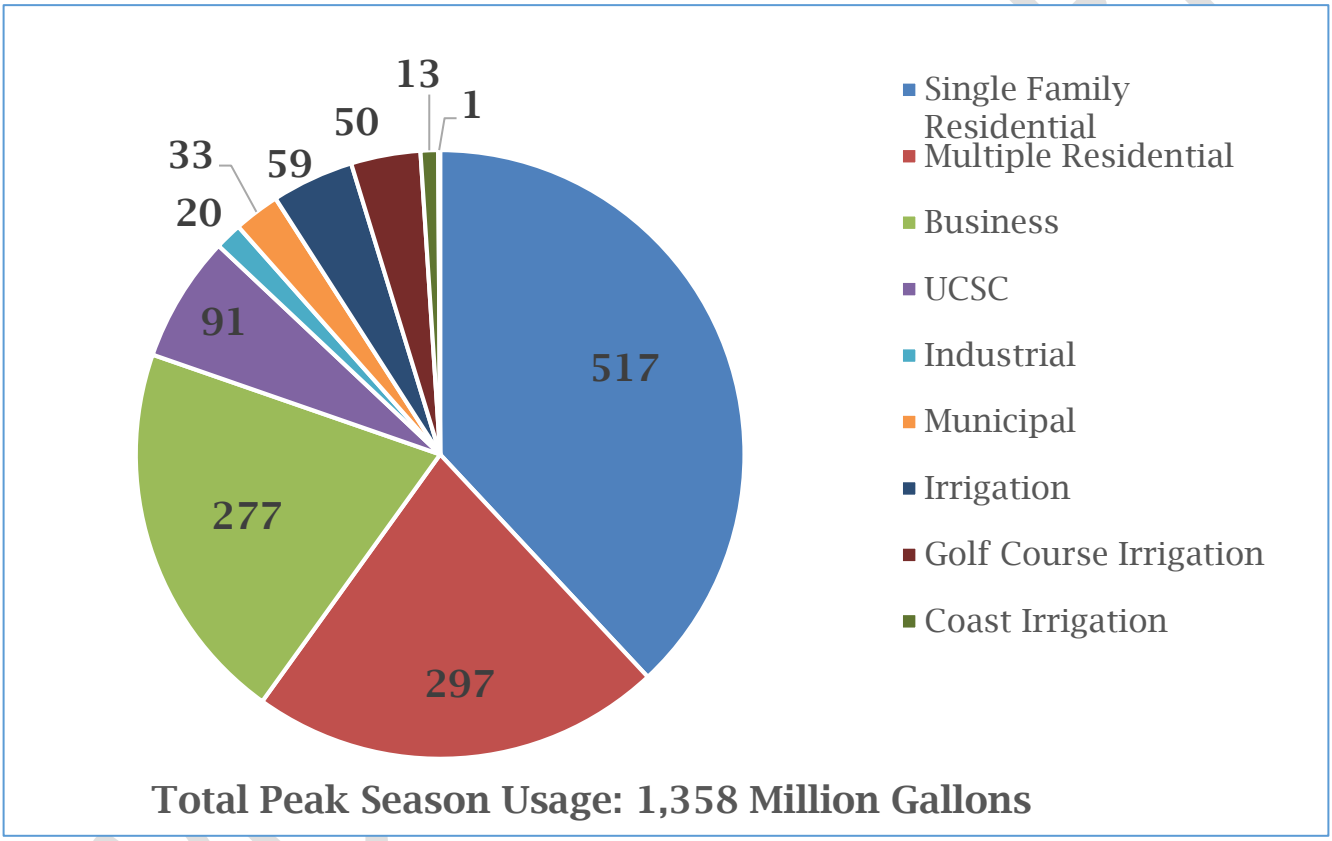
Figure 3 Single-Family Residential Sector Composition 2016-2018 (Million Gallons per Month)



The same analysis of seasonal composition of water use discussed above for SFR customers was repeated for all other customer classes. The purpose of this analysis is to characterize how much water is used during the peak season and how much is outdoor use (discretionary) vs indoor use (more related to health and safety).

Figure 4 shows the usage composition of the peak season in the new base year period by customer class. Single and multi-family residential are the predominant customer classes followed by business use and by usage at UCSC University.

Figure 4 Peak Season Composition by Customer Class (2016-2018) Million Gallons



Dividing the peak season usage into three usage priorities

Once the seasonality and indoor/outdoor composition of the peak season water use has been characterized for each customer class, the next step in the process of allocating water is to divide up water use into three **usage priorities.**

Usage priorities are the way in which water is used by the customer. As was the case in the existing WSCP, the three usage priorities that have been identified and are important in allocating water are:

1) **Health and Safety**
2) **Commerce**
3) **Irrigation**

These usage priorities are listed in descending order of importance, with #1 being essential to human health, and #3 being more discretionary in nature. These priorities of water use are the same as in the existing plan.
Health and safety is defined as water use that is related to essential (indoor) needs such as drinking, washing clothes, cooking, etc. This is the highest priority use of water in the scheme; when there is a shortage, water is retained as long as possible for health and safety uses.

Commerce is defined as water use that is related to business and commercial activity. This is the second highest priority of water use in the scheme; water for businesses will be retained as long as possible during a shortage, but it will eventually need to be reduced as a shortage intensifies. An example of this type of usage is water used for cooking at a restaurant, or water used for dishwashing or laundry at a hotel.

Irrigation is defined as water use that is related to outdoor irrigation. This is the lowest priority water use in the scheme; irrigation is considered to be discretionary and thus it is the first use that is cut back and also the first to be completely eliminated when a shortage gets severe enough. Irrigation can be related to any customer class.

The following is an example of how water is allocated by usage priority using the SFR customer class. The total usage of 1,358 MG for the peak season is primarily used by the SFR class as shown in Figure 4. The SFR class uses 38% of that total, or 517 MG.

Table 2 below shows the SFC peak season composition by usage priority. This breakdown of usage is based on the analysis of how much water is used in this sector indoor vs. outdoor. The amount of water available as discretionary irrigation water is approximately 28% of the total usage in this customer class, or 143 MG during the peak season. The remaining 374 MG is used for health and safety.

Table 2 Assigning Usage Priority for Single-Family Residential Class (Million Gallons)

Customer Class:	Health/Safety	Commerce	Irrigation	SFR Total for Peak Season	Percent of Total Peak Season Use
Single Family Residential	374	0	143	517	38%

What this shows is that there is relatively little discretionary water in the system, reflecting how well customers have conserved over time and how low overall demand is in recent years. This is also reflected in **Table 3** which shows how the peak season composition has changed between the old base year period and the new one.

This split between discretionary and health and safety water, is the result of a strong conservation ethic among these customers and the adoption and implementation of conservation measures over the last twenty years. **Table 3** shows how the peak season composition for SFR customers has changed between the old base year period and the new one.

Table 3 Comparing Water Usage in Priority Areas for Single-Family Residential Class in 2002-2004 and 2016-2018 base years

Usage Priority:	Health/Safety	Commerce	Irrigation	Total
2016-2018 Percent of Total	68%	8%	24%	100%
2002-2004 Percent of Total	53%	16%	31%	100%

A similar process is followed for each customer class to develop the overall reduction goals for all customer classes. These results are shown in **Table 4**.

Table 4 Overall Composition of Peak Season Usage, by Usage Priority

Jun-Nov, 2016-2018	Usage Priority (million gallons)			
Customer Class:	**1 Health/Safety**	**2 Commerce**	**3 Irrigation**	Total
Single-Family Residential	374		143	517
Multiple Residential	252		45	297
Business	213	64		277
University of California	71		20	91
Other Industrial		20		20
Municipal	7		26	33
Irrigation			59	59
Golf Course Irrigation		17	33	50
Coast Irrigation		13		13
Other		1		1
SUBTOTAL	**917**	**115**	**326**	**1,358**

Reducing deliveries according to usage priority

Under the new state requirements for Urban Water Management Plans and WSCPs, there is a specific requirement for standardized shortage levels. From the California Water Code Section 10632, the language is as follows:

Section (3) (A) Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use.

Based on the new water use characteristics, water use reductions by volume at each stage are shown in **Table 5**.

Table 5 Water Use Reductions by Stage

Peak season total consumption of 1,358 MG				
Stage	Overall System Shortfall:	Cutback (MG)	Consumption (MG)	Cutback (MGD)
1	10%	-136	1,222	-0.7
2	20%	-272	1,086	-1.5
3	30%	-407	951	-2.2
4	40%	-543	815	-3.0
5	50%	-679	679	-3.7
6	>50%		-680 or more	-3.8 or more

The next step in the process is to show how deliveries would be reduced at each stage according to usage priority. The goal in creating a schedule of reductions by usage priority is to keep priority 1 and 2 as whole as possible as long as possible. Another goal in creating this schedule is to try to implement a logical stepwise percent reduction in irrigation. Our resulting schedule is shown in **Table 6.**

Table 6 Reduction in Water Consumption by Priority

Priority:	**1 Highest**	**2 Next highest**	**3 Lowest**
Stage	Health/Safety (% of normal delivery)	Commerce (% of normal delivery)	Irrigation (% of normal delivery)
1	95%	95%	75%
2	90%	90%	50%
3	85%	85%	25%
4	80%	75%	0
5	70%	30%	0
6	60%	20%	0

Irrigation is reduced by 25% at each stage, and by Stage 4 there is no irrigation water left. The other characteristic of this schedule is that while business usage is maintained to the degree possible, it becomes harder to preserve as the shortage intensifies, thus even the Commerce priority is impacted significantly at higher stages.

Applying the percentage reductions to develop a specific reduction goal for each customer class

The last step in setting up customer reduction goals for each stage of a shortage is to apply the percentage reductions determined above to each customer class.

The following example for the SFR customer class demonstrates how this process works; the same technique is then applied to all customer classes. **Table 7** illustrates how when starting out with 374 MG for health and safety and 143 MG for irrigation in the peak season, a 95 percent delivery for health and safety equals 355 MG and a 75 percent delivery for irrigation equals 107 MG. The total volume of that combined demand reduction is 54 MG which equals 89% total delivery in this customer class at Stage 1.

Table 7 Example of Applying Percentage Reduction Goals to SFR Customer Class Showing example of Stage 1 reductions

		Usage Priority			
	Single Family Residential	Health /Safety	Commerce	Irrigation	Total
Peak Season Total	Volume (MG)	374	0	143	517
	Percent Delivery	95%	95%	75%	
Stage 1 Reduction	Volume (MG)	355	0	107	463

When the full table is assembled for all customer classes for each stage, the result is **Table 8.** The information in Table 8 guides the development of the rest of this shortage plan update in terms of strategy around how to achieve the reduction goals for each stage.

Table 8 Customer Class Reduction Goals

Customer Class	Normal Demand (Million Gallons) Jun-Nov	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
		Delivery (%)	Delivery (%)	Delivery (%)	Delivery (%)	Delivery (%)
		Volume (MG)	Volume (MG)	Volume (MG)	Volume (MG)	Volume (MG)
Single Family Residential	517	89%	79%	68%	58%	51%
		463	408	354	299	262
Multiple Residential	297	92%	84%	76%	68%	59%
		273	249	225	202	176
Business	277	95%	90%	85%	79%	61%
		263	249	235	218	168
UC Santa Cruz	91	91%	81%	72%	62%	55%
		82	74	65	57	50
Other Industrial	20	95%	90%	85%	75%	30%
		19	18	17	15	6
Municipal	33	79%	58%	38%	17%	15%
		26	19	12	6	5
Irrigation	59	75%	50%	25%	0%	0%
		44	30	15	0	0
Golf Course Irrigation	50	82%	64%	45%	26%	10%
		41	32	23	13	5
Coast Irrigation	13	95%	90%	85%	75%	30%
		12	12	11	10	4
Other	1	95%	90%	100%	100%	100%
		1	1	1	1	1
Total	**1,358**	**1,225**	**1,092**	**959**	**820**	**677**
		Overall reduction in each stage				
		10%	20%	30%	40%	50%

In looking at the results presented in Table 8, two facts that stand out: 1) the new demand characteristics mean that reductions at higher stages will be very difficult to achieve and, 2) any strategy for demand reductions will need to be designed with a high likelihood of success. The reason for this requirement is that in a serious shortage, it will be critical to have a system in place that not only is likely to succeed but is also fair to all customer groups and stays true to the core principles set out at the beginning of this plan.

General Approaches to Demand Reduction

During a water shortage, ideally there should be a combination of demand reduction measures, communication actions, and internal utility actions working together to reduce water demand.

In general, there are two main categories of demand reduction approaches. The first approach is to use prescriptive measures (rules, requirements, and prohibitions) for customers to follow. Such measures describe the ways customers can use water during a shortage. For example, many shortage plans contain progressively more stringent restrictions on outdoor irrigation such as limits on days per week, minutes per day, or time of day that customers are allowed to water.

The second approach to demand reduction during a shortage is to issue customer allocations. This method assigns each customer a monthly allocation of water and then uses penalties (administrative enforcement methods in the form of excess use penalties) when the customer uses more than their allocation. There are forms of allocation systems for other customer groups as well, such as Commercial or Irrigation. For irrigation customers, allocations can be done using a water budget approach; during shortages, the water budget can be rationed down by reducing the percent allowed at each stage.

For commercial customers, allocation schemes take on a different form. Given that there are so many types of Commercial customers with a wide variety of operations and demands, it does not make sense to issue a general allocation for these customers as would be done with the residential sector. Instead, for commercial customers, the allocation could be based on the individual customer's water use history. For example, the allocation could be set at a percent reduction from the customer's prior 12 months of usage.

These two broad approaches, prescriptive measures and allocations, are not mutually exclusive. The existing WSCP contains prescriptive measures as well as customer allocations, with allocations coming into play at Stage 3 for residential customers. However, for this WSCP update, given the new demand characteristics and the need to ensure successful reductions at each stage, an allocation only approach is recommended. The rationale for why this type of approach is best suited for the current situation in Santa Cruz is explained in the next section.

Recommended demand reduction approach

The City's shortage plan written in 2009 contained demand reduction measures laid out for each stage of shortage. The measures were characterized as demand reduction measures, publicity/communication actions or internal operating actions. The demand reduction measures included both prescriptive measures as well as customer allocations, with the allocations starting in Stage 3 for residential customers.

While prescriptive measures may be appropriate for some locations, in the Santa Cruz situation this type of approach has significant drawbacks. The key point about

prescriptive measures is that it is hard to determine whether the measures will actually yield the level of savings required in each stage of the reduction plan. Due to the low demand in Santa Cruz and the fact that there is less discretionary irrigation water available to cut, a plan that emphasizes prescriptive measures targeting discretionary water uses such as irrigation or filling swimming pools is not likely to produce much in the way of demand reductions. Additionally, prescriptive measures in general can be confusing and require both enforcement as well as education in order to help the measures be successful.

On the other hand, customer allocations and administrative enforcement methods in the form of excess use penalties, can be implemented with the utility billing system and there is a financial incentive for customers to comply and stay within their allocations. An allocation system doesn't require staff time to enforce things like watering hours, watering days or prohibitions against filling pools or spas. In addition, customer allocations allow customers freedom in how they use water within their allocation, as opposed to prescriptive measures which attempt to limit how and when customers use water.

The recommended approach to demand management in this WSCP update is to provide customer allocations starting at Stage 1 of the plan and reducing these allocations at each successive stage of the plan. This approach means no prescriptive measures, essentially giving customers an amount of water to use each month and allowing them to use that water as they see fit within that amount. This overall approach will not only free up staff from having to perform enforcement activities, but also help to maximize the probability that the demand reductions required at each stage would be achieved. As will be discussed in a later section, the allocation system will also be combined with an implementation strategy including a significant emphasis on publicity, communications and public outreach in order to educate customers on the plan

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Water Allocation System Explained for Each Customer Class

Single Family Residential

Given the new characteristics of water demand, under a new allocation system for single-family residential customers the amount allotted per month would need to be considerably less than in the existing WSCP. Under the existing plan, at Stage 3,

single-family residential customers were given an allocation of 10 CCF per month for a family of four persons.

In order to determine a starting point for a new allocation scheme, we examine the composition of the peak season for the single-family residential sector and the reduction amounts required at each stage of shortage. **Table 9** shows the reduction amounts that will be required for each stage of shortage, both in terms of overall amount in million gallons but also in terms of the average usage in CCF per month for a single-family account.

Table 9 SFR Reductions In Terms of CCF/Year and CCF/Month

	CCF	MG	ACCOUNTS	CCF/YR	AVE CCF/MONTH
PEAK SEASON	691,176	517	19,000	36.4	6.1
Stage 1	618,984	463	19,000	32.6	5.4
Stage 2	545,455	408	19,000	28.7	4.8
Stage 3	473,262	354	19,000	24.9	4.2
Stage 4	399,733	299	19,000	21.0	3.5
Stage 5	350,267	262	19,000	18.4	3.1

Using the average peak season usage per SFR account produces an unconstrained average customer demand of 6.1 CCF per month as the logical basis for establishing a new SFR allocation for the five stages of the WSCP. Given that the billing system can currently only accommodate whole numbers for an allocation, 6.1 is rounded down to 6.0. Similar rounding is used when calculating allocations as described further below.

Table 10 shows the recommended allotment amount for each stage for SFR customers. The allotments are shown in CCF (1 CCF = 1 billing unit = 748 gallons). The allotment amounts shown are for a three-person household. The decision to use three persons instead of four comes after reviewing the most recent data available in terms of average occupancy in the service area. The average occupancy is approximately 2.5 persons per household. Clearly there are homes with more occupants and an exception process will be established for customers to apply for more water based on additional home occupancy above three. The exception process will be discussed later in the implementation section of this plan.

Table 10 also refers to administrative enforcement/excess use penalties. These are the monetary penalties that will be applied to customer accounts when usage exceeds the allotment. The schedule of administrative enforcement/excess use penalties is presented in the implementation section. The plan, shown in Table 10, is that excess use penalties will not be applied in Stage 1. The intention of this is to have the initial Stage 1 be a time period when customers can adjust to their new *target allocations* and understand how much water they are using in comparison to that target.

Table 10 SFR Customer Allotments (data in CCF)

PEAK SEASON	100%	AVE CCF/MONTH 6.1		
	PERCENT OF NORMAL DELIVERY	RESULTING AVE CCF/MONTH	RECOMMENDED ALLOTMENT (CCF/MONTH)	ENFORCEMENT MECHANISM
Stage 1	89% (11% reduction)	5.4	5	None- Target allotment only
Stage 2	79% (21% reduction)	4.8	5	Excess use penalties begin
Stage 3	68% (32% reduction)	4.2	4	Excess use penalties continue
Stage 4	58% (42% reduction)	3.5	3	Excess use penalties continue
Stage 5	51% (49% reduction)	3.1	3	Excess use penalties continue

Multi-Family Family Residential

The allocation system for multi-family residential (MFR) customers will be similar to that of the SFR sector. The same three person per dwelling unit assumption used in SFR is used for MFR customers. This assumption is made knowing that it covers the majority of MFR properties but also with the realization that there are some large MFR properties that have a higher occupancy per dwelling unit. Thus, as similar to SFR, there will be an exception process for properties where there is higher occupancy.

In the prior WSCP, the amount of water allocated for MFR properties was determined by the number of dwelling units at the property; smaller properties with 2-4 units were given a specified allocation, then properties with 5-20 units were given a slightly smaller “per unit” allocation, and lastly properties with over 20 units were given a slightly smaller “per unit” allocation still. This system is one of three alternatives that were presented in the prior plan. One of the other two alternatives was a gallons per person per day (GPCD) approach, and the other was a general approach that MFR customers would be treated as the same as SFR in the allocation system.

In this WSCP update, the approach for MFR allocations does mimic the approach in the prior plan, which used the number of dwelling units at the property. However, in the new system there is not a three-tiered allocation structure for different MFR property sizes. Instead, this plan uses the same base allocation of 5 CCF per unit regardless of property size. The reasons for this distinction are listed below:

1) The usage data for MFR properties support a Stage 1 allocation of 5 CCF across the board. In other words, when examining the usage data for MFR properties, the wintertime usage, used as a proxy for essential indoor use, is in the range of 3-5 CCF across the board, regardless of the number of dwelling units at the property. As a result of this usage profile, it does not make sense to differentiate between MFR properties when proposing the allocation.

2) The second reason for making the MFR allocation the same as the SFR allocation is that the current tiered rate structure for MFR properties already allocates water based on the number of dwelling units. Specifically, the amount of water per tier for MFR properties is based on number of dwelling units. For example, the first tier (0-5 CCF) for a 3 unit property would be up (0-15 CCF). Given that the rate structure is equally proportional for every size property

3) The third reason that the MFR allocation will be the same as the SFR allocation is that this approach is easily understood and easy to communicate to customers. The approach is fair, and in outreach and communication of the overall allocation system, this component will not stand out as confusing or perceived to give MFR customers more or less water than SFR customers.

Table 11 shows the MFR allotment schedule. The main distinction shown in the table is that of whether or not the property has a dedicated irrigation meter or not. The presence of a separate meter for irrigation means that outdoor water use for the property is not combined in with the usage on the main meter that measures indoor water use, and thus for allocation purposes, the main meter account can be allocated slightly less water. Irrigation meters all have a water budget associated with them and reductions to those budgets during a shortage will be discussed in a later section of this plan.

Table 11 MFR Customer Allotments

Multiple Family Residential Allotment Schedule		Separate Irrigation Meter Serving Property?	
		Yes	No
	Stage 1	4	5
	Stage 2	4	5
	Stage 3	3	4
	Stage 4	2	3
	Stage 5	2	3

Business

The allocation system for the business customer class differs significantly from the residential customer classes described thus far. Due to the vast heterogeneity of this class of customers, it is not possible to design a one-size-fits-all allocation approach. The types of customers in this class range from small businesses of all kinds with relatively low water use, primarily indoors, to large customers such as the Santa Cruz Boardwalk or large hotels and everything in between. In the billing system, the business class is separated into three sub-categories: Business-general, Business-hotel/motel, and Business-restaurant. Due to the wide variation in water use amongst these business customers, it does not make sense to use a "customer type average use" allocation approach, for example, based on the average peak season use for the class, as was done for the residential classes. What is needed for this class is a more individual customer specific focused allocation scheme.

Table 12 is an excerpt from Table 8 that shows the reduction goals just for the business class. The percent reductions for each stage are shown as well as the resulting volume of water.

Table 12 Sample Business Allocation Example (data in CCF)

Customer Class	Normal Demand (Million Gallons) Jun-Nov	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
		Delivery (%)	Delivery (%)	Delivery (%)	Delivery (%)	Delivery (%)
		Volume (MG)	Volume (MG)	Volume (MG)	Volume (MG)	Volume (MG)
Business	277	95%	90%	85%	79%	61%
		263	249	235	218	168

The allocation approach for business customers uses the following methodology: The system will start with the usage profile of each individual customer for each month of the peak season in a selected base year. The base year will be 2019, the most recent year in which there was no water shortage. In the future, the base year for this customer class can be updated at the time of implementation to reflect the most recent year for which there was no shortage. The peak season encompasses usage from May through October. During a shortage, the customer will have the monthly usage from 2019 as a starting point allocation and then at each stage a percentage reduction is applied.

Table 13 shows an example of how the allocation would work for a sample business. As shown, in the month of May, the 2019 base year usage for this sample business is 146 CCF (1 CCF= 1 billing unit = 748 gallons).

Table 13 Sample Business Allocation Example (data in CCF)

	May	June	July	August	September	October
2019 Base Usage (CCF)	146	138	139	124	128	144
Stage 1 (95% of normal)	139	131	132	118	122	137
Stage 2 (90% of normal)	131	124	125	112	115	130
Stage 3 (85% of normal)	124	117	118	105	109	122
Stage 4 (79% of normal)	115	109	110	98	101	114
Stage 5 (61% of normal)	89	84	85	76	78	88

Although the allocation scheme presented here for businesses maybe more complicated than the residential allocations, there are reasons for why a monthly percentage allocation makes sense. Some considerations and rational are as follows:

- Business customers are unique; the variety in usage amongst this customer group requires an individual customer based allocation.

- Using a percentage reduction from the *average peak season usage in a base year period* approach does not make sense for this class due to the variability in usage patterns even within the peak season for different business types. An example of this is a hotel with a lot of seasonality. A hotel may have its highest occupancy in the late summer months, with lower occupancy in the first few months of the peaks season. If an average season approach were used, the resulting allocation maybe too much in the early months and not enough in the latter months, possibly resulting in operational issues and economic harm.

Due to the above two considerations, an individual customer approach using a monthly percent reduction during the peak season makes the most sense as it takes into consideration the variation within the peak season.

Other Customer Classes

All of the other customer classes (Industrial, UCSC, Interdepartmental, Golf Course Irrigation and Coast Irrigation) with the exception of the landscape irrigation class will have an allocation system using the reduction goals stated in Table 8. The landscape irrigation class will be discussed in the next section.

Table 14 shows an example showing the golf course irrigation sector. In this example, you can see that in higher stages of shortage golf irrigation is mostly reduced to the point where it is effectively eliminated.

Table 14 Percent of normal deliveries during a shortage for Golf Course Irrigation

Customer Class	Normal Demand (Million Gallons)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
	Jun-Nov	Delivery (%)	Delivery (%)	Delivery (%)	Delivery (%)	Delivery (%)
Golf Course Irrigation		Volume (MG)	Volume (MG)	Volume (MG)	Volume (MG)	Volume (MG)
		82%	64%	45%	26%	10%
	50	41	32	23	13	5

To provide an allocation for the golf course and other customer classes mentioned in this section, the approach will be based on the peak season average for the 2016-2018 base year period, similar to what was used for the residential customer classes.

For example, each customer in these various customer classes would have a starting point for their allocation of their average usage in the peak season for 2016-2018. The allotment at each stage would be the same for each month of the peak season.

Continuing with the example of a golf course, the **Table 15** shows the golf course usage for Delaveaga Golf Course and the corresponding allocations for each stage.

Table 15 Example of Allocation for Delaveaga Golf Course

2016-2018 Average Usage During Peak Season (CCF)	7149
Allocation @ Stage 1 (82% of normal)	5862
Allocation @ Stage 2 (64% of normal)	4575
Allocation @ Stage 3 (45% of normal)	3217
Allocation @ Stage 4 (26% of normal)	1859
Allocation @ Stage 5 (10% of normal)	715

Customers in the various customer classes mentioned (Industrial, UCSC, Interdepartmental, Golf Course Irrigation and Coast Irrigation) will have an allocation structured in a similar way to the example given in Table 15, but using the reduction goals from Table 8 applied to the specific customer class.

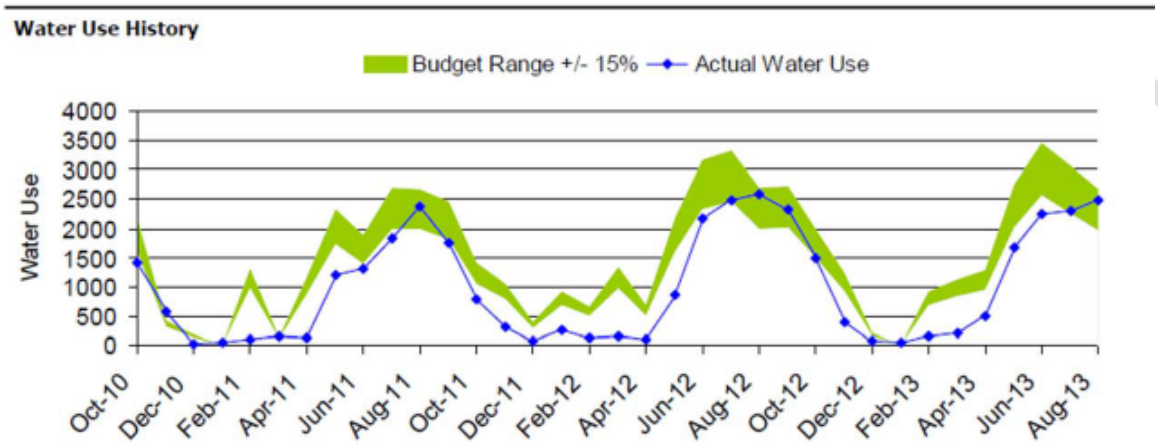
Landscape Irrigation Class

All irrigation meter accounts in the service have been under a water budget system since approximately 2010. The early system was an advisory water budget program called WaterFluence. This program was innovative in that it provided a water budget

report to customers on a monthly basis. The water budget for each site is calculated using a combination of factors including the site irrigated area in square feet, actual weather conditions such as evapotranspiration, precipitation and temperature.

The water reports show the site water usage on a graph in comparison to the water budget. An example of the budget graph is shown below in **Figure 5**.

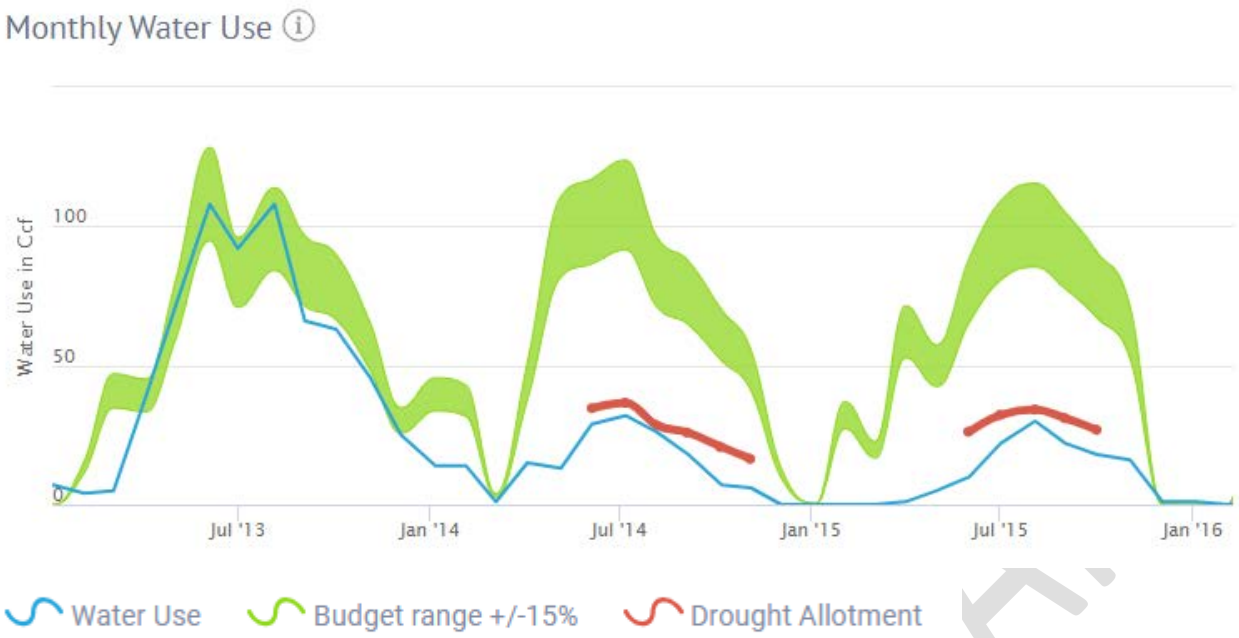
Figure 5 WaterFluence Water Budget Example (Water Use in CCF)



During the drought of 2014-2015, the irrigation customer class was “rationed” by reducing their water budget using WaterFluence. This was an innovative methodology at the time; it was a new way to easily communicate the shortage level to irrigation customers.

Figure 6 shows an example of a site water budget during the drought; the red line shows the rationed drought allotment. In this example, actual water use is below the allotment, meaning this customer was adhering to the new allotment and lowered actual water use to stay within it.

Figure 6 WaterFluence Drought Allotment Water Budget Example



The WaterFluence program is still being implemented today with some advancements in technology. However, one limitation to the program is that it provides information after the fact. That is, customers get a water report showing the usage for the prior month and how that usage compared to the budget.

In 2016 Santa Cruz Water introduced new water rates as the beginning of a five year rate increase. Included in the new rates was the introduction of water budget based rates for irrigation accounts. In order to implement budget based rates for irrigation customers, a new water budget approach had to be designed that would be forward looking, instead of the WaterFluence that look at the prior month's consumption. The new water budgets were developed using a formula based on the site irrigated area, a crop coefficient, and average reference evaporation (ETo) from the Santa Cruz Delaveaga CIMIS weather station. This process allows the calculation of water budgets for each account for all 12 months of the year. The compromise of this approach is that the water budget is calculated using average monthly weather (ETo as a proxy) instead of the approach of WaterFluence which takes into account the actual weather and rainfall that occurred during the month that the usage occurs.

Now that the city has water budget based rates, it will be possible to create allocations for each account for each stage of a shortage. The allocations will be a percent reduction from the current monthly water budget amount.

Table 16 shows the reduction amounts for each stage for the landscape irrigation class.

Table 16 Percent of normal deliveries during a shortage for Landscape Irrigation

Customer Class	Normal Demand (Million Gallons)	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
	Jun-Nov	Delivery (%)	Delivery (%)	Delivery (%)	Delivery (%)	Delivery (%)
Landscape Irrigation		Volume (MG)	Volume (MG)	Volume (MG)	Volume (MG)	Volume (MG)
		75%	50%	25%	0%	0%
	59	44	30	15	0	0

Table 17 shows an example of an irrigation account and the water budget for the water budget based rates system. The site irrigated area is 8,452 square feet, which results in an annual water budget of 281 CCF. Table 14 shows how this budget amount is divided up over the 12 months of the year. The table also shows the peak season in yellow, with the drought allocation shown at each stage of shortage. At by the time Stage 4, 5 & 6 are reached, there is no irrigation water available.

Table 17 Irrigation Account Water Budget & Drought Allocation

Monthly Distribution

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Budget CCF	11	14	20	28	33	33	36	33	28	22	14	9
Stage 1					25	25	27	25	21	17		
Stage 2					17	17	18	17	14	11		
Stage 3					8	8	9	8	7	6		
Stage 4					0	0	0	0	0	0		
Stage 5					0	0	0	0	0	0		

Implementation

Timeline for Declaring Water Shortage

The table below indicates the approximate times of the year when the City evaluates water supply conditions and, if necessary, declares a water shortage. Planning for a water shortage may begin earlier in winter, and should commence early if conditions that winter are unusually dry or are preceded by a dry year, but it is not usually until the end of March that the water supply outlook for the year ahead becomes certain. This leaves very little lead time to prepare for implementing the water shortage contingency plan. **Table 15** shows the timeline for declaration of a water shortage.

Long-range weather forecasting has not yet advanced to the point where it is possible to know in advance with certainty whether the City will experience a water shortage. Therefore, it is not practical to plan more than one season at a time, other than to prepare possible scenarios using multiple dry years for modeling purposes.

Table 15 Timeline for Declaration of a Water Shortage

Target Date	Action
Months of Oct -Dec	Monitor rainfall, reservoir level, and runoff amounts
Late January	Prepare written status report on water supply conditions
Early February	Present initial estimate of water supply availability for year ahead
March	Conduct revised estimate of water supply availability for year ahead and need for shortage declaration
Early April	Present final supply outlook and recommendation to Water Commission; notice of public hearing published if a shortage will be declared
Mid-April	City Council formally declares water supply shortage, adopts emergency ordinance
May 1st	Water shortage regulations become effective

Process for Declaring Water Shortage

Monthly Water Commission meetings serve as a public forum for discussing water conditions and for hearing issues associated with implementation of the water shortage ordinance throughout the entire duration of the water shortage event. Staff

will take a recommendation to the Water Commission after an evaluation of water supplies and an analysis of what shortage stage is appropriate for the conditions.

Following consideration by the Water Commission, formal action declaring a water shortage is taken by City Council. The section of the Santa Cruz Municipal Code that references shortage declaration is as follows:

16.01.020 DECLARATION OF WATER SHORTAGE
The provisions of this chapter shall take effect whenever the director, upon engineering analysis of city water supplies, finds and determines that a water shortage exists or is imminent within the city of Santa Cruz water service area and a declaration of a water shortage is made by a resolution of the city council, and they shall remain in effect for the duration of the water shortage set forth in the resolution.

Communication Protocols

After decades of frequent water supply shortages, Santa Cruz Water Department customers are predisposed to use water wisely, and are typically responsive to calls for increased conservation. With that said, this predisposition also means that there is less waste to cut from already slim household daily water usage. Therefore a robust communications plan utilizing as many communications tools and platforms will be necessary to ensure that customers understand the seriousness of additional calls for conservation. In addition, given that this shortage plan, unlike the prior plan, relies on allocations at all stages of shortage, it is crucial that all communication will explain the basic concepts regarding the allocation system and point the customers to various resources that will be available to help them both understand and adapt to the new allocation system.

Drawing from past experiences with supply shortages as well as mandatory water rationing, SCWD will utilize two sets of communication protocols: **general messaging**, targeting the broad public including residents and visitors; and **specific messaging**, targeting individual customers. Whereas general messaging will be campaign in nature, and utilize broad communication tools such as social, earned, and paid media, specific messaging will utilize tools such as personalized direct mail and email. All messaging will be shared in both English and Spanish languages.

The general structure of the communications protocol is as follows:

1) **General Messaging**: This section of communication will be broad in nature and be directed to all customers groups, visitors and water users. General messaging will be akin to an awareness campaign to inform water users about

the nature of the water shortage and the implementation of the water shortage plan including the new allocation system. The tools or means of communication for the general messaging will include, but not be limited to: social media channels, email and print newsletters as well as paid & earned media.

2) **Specific/Targeted Messaging**: This section of communication will be a second element in the overall communication strategy. Specific messaging is designed for informing individual customers of their allocation and primarily for those customers who, based on their recent usage history, are expected to exceed their allocation. The specific messaging will come in the form of personalized direct print or email letters.

3) **Customer Resources**: In addition to the two sections mentioned above, a third and important communication element is that of customer resources. These resources, primarily in the form of various customer web pages, forms and online tools, are available in order provided information about the allocation exception process. For example, these web pages provide information about the health & safety exception and the exception process for additional occupancy. The web pages will also explain the allocation system for business and other customer classes and provide example allocations for informational purposes. In addition to web resources about the allotment system, a complementary set of resources will be available on conservation topics and providing a suite of advice for customers to assist them in lowering their usage to stay within the allocations.

Examples of each of the communication elements are shown below in **Table 16**.

Table 16

Communication Element	Tools/Methodology	Concept
(1) General	Social media, paid and earned media, newsletters, bill inserts	Broad messages regarding nature of water shortage and shortage stage, need for allocations and basic structure of allocation
Example: "The Water Department has evaluated water supply conditions and has determined that a Stage 2 shortage declaration is warranted. Due to the low water demand characteristics in recent years, the Department has developed a shortage response plan that is based on customer allocations at all stages of shortage. Please refer to the customer resource web pages on the Department website for information about the allocation system"		
(2) Specific	Pesonalized customer letter/email communications	Individual personalized letters for customers who the department expects to exceed their allotment, based on historical usage patterns
Example: "Based on your recent usage patterns, it appears that typcial usage for your household is 7 CCF. Given that the new customer allocation for single family residential homes is 5 CCF, if your normal usage continues you will be over allocation by 2 CCF. Please refer to the Department's web resources for information on how you can reduce your usage and stay within your allocation."		
(3) Resources	Water Department Web Pages, WaterSmart Software Customer Portal Information	Customer service related web pages that explain allocation system and provides information about the exception process.
Example: "The Water Shortage Contingency Plan has a process for exceptions to the alloation system. Exceptions are made for only two types of reasons: 1) Health & Safety issues and 2) Additional household occupancy. The following sections explain each of these exception categories and provide the corresponding forms to applying for an exception."		

Administrative Enforcement

THIS SECTION IS UNDER DEVELOPMENT

Exceptions

No water shortage plan can account for all situations. The exception procedure allows the Water Department to provide for special or exceptional circumstances that otherwise would create undue hardship for an individual customer or class of customers.

An exception allows a customer to be relieved of a particular regulation or receive an increased allocation for the duration of the shortage. Therefore, it should be granted only when justified on specific grounds that warrant allocating more water than other similarly situated customers and when consistent with the intent of the water shortage regulations, while providing equal treatment of all customers.

As stated previously in other sections, the allotments are assuming a household or dwelling unit with 3 person occupancy. It is possible that customer request more water on the basis of having additional occupancy beyond the base 3 persons per

household or dwelling unit.

Exceptions for more water will be processed on a case by case basis. Exceptions will be evaluated by the department and if granted, additional water will be granted at the amount of 1 CCF per person per month.

Additional will only be granted for the reason of additional occupancy beyond three persons per household or specifically related to health and safety. Some of the reasons for granting additional water include:

- Requests for water for medical reasons
- In-home childcare

Exceptions will not be granted for items such as vacation rentals, at-home food production such vegetable gardens, or for pets or livestock related reasons.

The Department's customer resources will include a web page dedicated to explaining the customer allotments and the exception process. The forms to apply for an exception will be posted there. Customers will need fill out the form and sign an affidavit certifying that they have either an occupancy or health and safety related reason for applying for the exception.

Appeals

The City's existing ordinance allows any water service customer who considers an enforcement action to have been erroneously undertaken to appeal their case before a City appointed administrative hearing officer. The officer would consider the evidence presented by the customer and decides whether to uphold the enforcement action or to provide relief. (City attorney appointment or from planning)

The difference between an exception and an appeal is that an appeal gives an individual the opportunity to challenge an official decision about an enforcement action. It is not the primary means to secure a larger allocation or get an exception to a water use regulation. However, as mentioned above, customers should be able to appeal a denial by the Water Director of such an exception request to the hearing officer.

From past experience, the most common reason for filing an appeal was to contest large excess use penalties that were levied while under water rationing, often due to a leak in the customers' plumbing fixture or system. This resulted in a large and difficult backlog of cases for the Customer Service and ultimately the hearing officer. The Water Department would continue to follow its existing water leak rebate policy that provides administrative relief, including forgiveness of excess use penalties, for certain types of leaks that are considered to be beyond the customer's control, such as a leak that develops in an underground pipeline serving a property. Common maintenance items, such as a leaking toilet or failing automatic irrigation

valve, that are considered to be customer's responsibility to control, are not eligible for such forgiveness.

One feature of the existing ordinance was to allow a resident who is not a customer of record to force the account customer to appeal the excess water use fee. The ordinance also allowed a customer to request to use a portion of the excess use fee, on a one-time only basis, toward the installation of water conservation equipment in lieu of paying it to the Water Department.

In the drought of 2014 & 2015, Santa Cruz implemented a novel approach for handling customers that incurred large excess use penalties. A process was set up for a method to provide one-time forgiveness of excess use penalties while under water rationing. To be considered for such forgiveness, the customer was required to sign up and complete a short weekend or evening course that became known as "water school". This course covered topics such as basic meter reading, leak detection, and other topics relevant to the water restrictions in place at the time. This approach (like traffic school) would help reduce the number cases heard by the hearing officer, provide financial relief to customer receiving the high bill, and most importantly, would give them the opportunity, education, and tools they need to achieve ongoing compliance with water use rules and regulations for the remainder of the shortage. The process of allowing water school for customers will continue under this WSCP update.

Drought cost recovery fee

Effect of Water Shortages on Revenue

The City and the Water Department have recognized that the reductions in water use due to demand reductions during a shortage will negatively affect the financial situation of the department. It is clear that revenue will decrease proportionate to the demand reductions. The Department has planned for this eventuality. The rates put into place in 2014 included a drought cost recovery fee that went into effect when the City Council declared a shortage.

Mechanism to buffer revenue impact

The Department will be implementing new rates in late 2020 or early 2021. The approach of the implementing a drought cost recovery fee will be updated and will continue. The Drought Cost Recovery Fee will only be levied during an official declaration of water restrictions. The amount recovered by the fee is indexed to the shortage stage. The fee will be implemented over a whole fiscal year as a fixed charge, by meter size, on the customer's water bill. The fee will generate revenue to make up for lost revenue during a shortage, in order to make the Department whole.

Monitoring and reporting

There are two general components to monitoring and reporting. One part is the ongoing reporting to the state that the department is already doing. This is the ongoing monthly production reporting to the State Water Resources Control Board. Each month the department reports both overall production as well as gallons per capita per day to the board. This reporting will continue throughout any water shortage that may occur. In that sense, the department is already committed to tracking production and reporting it. The data that the department reports is publicly available and thus customers can see how water use is tracking over time.

Another phase of monitoring and reporting that could come into play specifically during a shortage is that of month by month presentation of usage data to customers. In other words, during a shortage, a special web page would be created to display usage data and progress on meeting reduction goals.

WSCP Refinement Procedures

Following implementation of this shortage plan there will be an internal department process that will look at the experience overall and make recommendations for how the process could be improved. The review process will be conducted by a sub-section of Water Department managers who were involved with different aspects of administering the plan. In order to make sure that the implementation of the shortage plan improves over time until the plan is updated again, the review process will occur each time that there is a shortage season. In other words, the department will review the experience of implementation after each season of shortage when the plan has been used. The results of the review will be documented in a department memo and a team will be designated to put the recommendations into action for improvement during the next shortage plan implementation.

Water Shortage Recovery and Plan Termination

A water shortage ends when local rainfall, runoff, and reservoir storage levels improve to the point where the water system is once again capable of supporting unrestricted water demand. Any water use rules and regulations in effect at the time are officially rescinded by City Council and public notice is given that the water shortage is over. The Water Director would then oversee any remaining termination and plan review activities. These activities could include:

- Publicize gratitude for the community's cooperation
- Restore water utility operations, organization, and services to pre-event levels
- Document the event and response and compile applicable records for future reference
- Continue to maintain liaison as needed with external agencies
- Collect cost accounting information, assess revenue losses and financial impact, and review deferred projects or programs
- Debrief staff to review effectiveness of actions, to identify the lessons learned, and to enhance response and recovery efforts in the future
- Complete a detailed evaluation of affected facilities and services to prepare an "after action" report
- Update the water shortage contingency plan as needed

Appendix A Implementation Actions by Stage

Stage 1 – Water Shortage Alert

Stage 1 applies to relatively minor water shortage that requires up to a 10% level of demand reduction. In the existing WSCP, this level of shortage was considered to be only requiring voluntary demand reduction measures along with some

implementation of water waste enforcement. In this WSCP update the new allocation system applies to all stages. At Stage 1, advisory allocations are provided to customers but excess use penalties are not yet implemented.

An example of a public message that will be used in outreach to customers regarding a Stage 1 Water Shortage Alert will be similar to the following (subject to change):

"Due to abnormally dry conditions this winter, we're asking all customers to voluntarily cut back water use this summer by 10 percent to stretch the available water supply. City water users should stop using water for non-essential purposes and conserve where possible in case the dry period experienced this past winter continues into next year. If everyone cooperates, we may avoid imposing more stringent watering restrictions. As always, wasting water is prohibited by law."

Stage 1 Water Shortage Alert

If it is deemed necessary to declare a Stage 1 Water Shortage Alert, based on the water supply outlook made during the spring of each year, the following implementation actions will be taken (not in order of importance or timing):

Demand Reduction Measures:

- Implement and distribute advisory water allocations for all customers at the Stage 1 allocation level
- Step up enforcement of water waste ordinance

· Prohibit non-essential water use:

- Serving drinking water by restaurant or food service establishments except upon request
- Use of potable water for washing driveways, patios, parking lots or other paved surfaces

- Require hotel, motel, and other commercial lodging establishments to offer option of not laundering towels and linen daily
- Require hoses used for any purpose to have shut off nozzles

Publicity/Communications

- Create communication tool to inform customers of ways to reduce water use.
- Distribute and post press release to media, social media channels, City website.
- Create communication pieces including social media posts, direct mail, paid advertising.
- Create dedicated webpage.
- Dedicate monthly SCMU email newsletters to disseminating water shortage information.
- Utilize bi-annual utility newsletter.
- Inform large landscape/property manager/green industry of irrigation restrictions.
- Disseminate information for customers to learn how to read their meters.

Operating Actions

- Coordinate water conservation actions with other City Departments and public agencies
- Adopt water shortage ordinance prohibiting non-essential water use
- Eliminate system water uses deemed non-essential
- Delegate water waste patrol duties to all field personnel
- Undertake contingency planning for continuing/escalating shortage

Stage 2 – Water Shortage Warning

Stage 2 applies to moderate water shortages with a demand reduction requirement of up to 20%. This condition requires more vigorous public information and outreach. The primary demand reduction measure that will be implemented at this stage and all stages going forward is the use of excess use penalties for water use above customer allocations.

An example of a public message that will be used in outreach to customers regarding a Stage 2 Water Shortage Warning will be similar to the following (subject to change):

"It is necessary to impose mandatory restrictions on water use to ensure that throughout the duration of this water shortage an adequate supply of water is maintained for public health and safety purposes. Our overall goal is to reduce water use by 20 percent, which can be achieved if everyone adheres to their allocation. Unlike the advisory nature of the allocations at Stage 1, the seriousness of the

shortage situation requires that the allocations are now mandatory. Excess use penalties will be applied to customer bills for water usage above allocation."

Stage 2 Water Shortage Warning

If it is deemed necessary to declare a Stage 2 Water Shortage Warning, based on the water supply outlook made during the spring of each year, the following implementation actions will be taken (not in order of importance or timing):

Demand Reduction Measures:

- Implement mandatory water allocations for all customers at the Stage 2 allocation level
- Implement excess use penalties for use over allocation
- Step up enforcement of water waste ordinance

<u>Continue to prohibit non-essential water use described in Stage 1</u>

Publicity/Communications

- All actions in Stage 1 Water Shortage Alert in addition to:
- Disseminate PSAs to targeted local radio and television stations.
- Regularly update the public on consumption and supply numbers.
- Include information in City Manager's monthly email newsletter.
- Initiate presentations to local Chambers of Commerce, business associations, board of realtors, etc.
- Inform large landscape/property managers/green industry of water budget reductions.
- Consult with major customers to develop conservation plans.
- Conduct workshops on large landscape requirements for property owners, contractors, and maintenance personnel.

Operating Actions

- Coordinate with all City Departments and public agencies to reduce water use
- Optimize existing sources (increase groundwater production, reduce transmission losses)
- Suspend main flushing except as required for emergency and essential operations
- Intensify distribution system leak detection and repair
- Hire, train, dispatch water waste patrol
- Undertake contingency planning for continuing/escalating shortage
- Develop strategy to mitigate revenue losses

Stage 3 – Water Shortage Emergency

Stage 3 applies to a serious water shortage with a demand reduction requirement of up to 30%. This condition is a serious situation that will require significant reductions by each customer class. Allocations will be reduced to Stage 3 levels (see Table 10 & 11 for SFR and MFR allocations).

An example of a public message that will be used in outreach to customers regarding a Stage 3 Water Shortage Emergency will be similar to the following (subject to change):

"The City faces a serious water shortage emergency due to prolonged drought. Our overall goal is to reduce water use by 30 percent, which can be achieved if everyone adheres to their allocation. The situation is more serious than it was at stage 2; all customers are urgently asked to make every effort to conserve water and abide by watering restrictions or face further reductions in water allotments."

Stage 3 Water Shortage Emergency

If it is deemed necessary to declare a Stage 3 Water Shortage Emergency, based on the water supply outlook made during the spring of each year, the following implementation actions will be taken (not in order of importance or timing):

Demand Reduction Measures:

- Implement mandatory water allocations for all customers at the Stage 3 allocation level
- Continue to implement excess use penalties for use over allocation
- Further increase of water waste enforcement
- Institute a temporary water service connection ban
- Require all commercial customers to prominently display "save water" signage with specified language at specified location

Continue to prohibit non-essential water use described in Stage 1

Publicity/Communications

- All actions in Stage 2 Water Shortage Alert in addition to:
- Provide regular, prescriptive media briefings.
- Provide regular and ongoing briefings to Water Commission, City Council, and other key stakeholders.
- Prepare communication pieces for possible future service connection moratorium.

Operating Actions

- Continue all operating actions listed under Stage 2
- Increase customer service training to address high bills and irate customers
- Expand size and coverage of water waste patrol
- Expand, strengthen water conservation education, activities, and program
- Increase frequency of monitoring and reporting of water production and consumption
- Undertake contingency planning for continuing/escalating shortage
- Develop strategy to mitigate revenue losses

Stage 4 – Severe Water Shortage

Stage 4 applies to a serious water shortage with a demand reduction requirement of up to 40%. This condition is a serious situation that will require significant reductions by each customer class. Allocations will be reduced to Stage 4 levels (see Table 10 & 11 for SFR and MFR allocations). The water supply conditions that would trigger Stage 4 parallel the difficult situation the City experienced in the drought of late 1970s. Under this scenario, virtually all available water must be reserved either for health and safety purposes or to sustain local business.

The public message that will be used in outreach to customers regarding a Stage 4 Water Shortage Emergency will be similar to the following (subject to change):

"Due to continuing deterioration in storage and overall scarcity of available supply, all customers, residential and business alike, are now unavoidably subject to water rationing. The current water shortage is among the most severe ever faced in modern times. We must all continue to conserve water to the maximum extent possible and strive to maintain water use within our established rationing allotments as long as the drought endures in order to avert a water crisis."

Severe Water Shortage

If it is deemed necessary to declare a Stage 4 Severe Water Shortage, based on the water supply outlook made during the spring of each year, the following implementation actions will be taken (not in order of importance or timing):

Demand Reduction Measures:

- Reduce water allocations for all customer classes to Stage 4 levels
- Rescind hydrant and bulk water permits, prohibit use except by special permission

Continue to prohibit non-essential water use described in Stage 1

Publicity/Communications

All actions in Stage 3 Water Shortage Emergency in addition to:

- Contract with outside PR agency to manage comprehensive public awareness campaign, including paid ads, earned media, direct mail, etc.
- Promote zeroscape landscaping.
- Partner with other water agencies to promote appropriate grey water use, etc.
- Prepare emergency messaging for possible critical water shortage utilizing Nixel, CodeRed, reverse 911.

Operating Actions

- Scale up administrative appeals staff to support hearing officer(s)
- Expand water waste enforcement to 24/7

Stage 5– Critical Water Shortage

Stage 5 represents an imminent and extraordinary crisis threatening health, safety, and security of the entire community. Under this dire situation, extreme measures are necessary to cut back water use by up to half the normal amount. Not enough water would exist even to meet the community's full health and safety needs, the top priority. **All water should be reserved for human consumption, sanitation, and fire protection purposes and any remaining amount allocated to minimize economic harm.** A shortage of this severity could be expected to generate stress, confusion, and chaos much the same as any major emergency and at some point could transform into a full blown natural disaster that can no longer be governed by local ordinance and may need to be manage by the same basic principles and command structure under the state Standardized Emergency Management System that other natural disasters are. The City has experienced water shortages in the past but never one of such large proportion.

The Stage 5 public message is as follows:

"The City of Santa Cruz is confronted with a critical water shortage emergency of unprecedented proportions. At this time, there exists barely enough drinking water for the most essential human health, sanitation, and safety needs. As a result, all outdoor watering is now prohibited. We understand the hardship this extraordinary condition poses to every resident and business in the City and appreciate the sacrifices people are making to ensure that water system does not run dry. Everyone is urgently requested to do whatever necessary to maintain water use within or below their allotted amount."

Critical Water Shortage

If it is deemed necessary to declare a Stage 5 Critical Water Shortage, based on the water supply outlook made during the spring of each year, the following implementation actions will be taken (not in order of importance or timing):

Demand Reduction Measures:

- Further reduce allocations for all customer classes
- Prohibit all outdoor irrigation
- No water for outdoor washing or recreational purposes; close pools, public showers
- Continue all measures initiated in prior stages as appropriate

Continue to prohibit non-essential water use described in Stage 1

Publicity/Communications

- All actions in Stage 4 Severe Water Shortage in addition to:
- Implement crisis/emergency communications including establishment of a Joint Information Center (JIC).
- Deploy prepared emergency messaging on Nixel, CodeRed, reverse 911.

Operating Actions

- Consider shifting to EOC model of command management for overall policy guidance and coordination
- Coordinate with CA Division of Drinking Water, District Engineer and other emergency response agencies regarding water quality, public health issues
- Coordinate with law enforcement agencies to address enforcement challenges
- Continue water waste enforcement 24/7
- Delegate field staff to assist in enforcement (shut offs, flow restrictors)
- Continue all applicable operating actions listed under Stage 4
- Coordinate with local sanitation agencies regarding sewer line maintenance

- Continue close monitoring and reporting of water production and consumption
- Investigate potential for reduced in-stream release
- Procure resources to utilize dead storage, if needed
- Undertake emergency planning for continuing

Stage 6– Catastrophic Water Shortage

The required standardized shortage stages that are specified in CA Water Code Section 10632 do go up to a new required sixth stage which is "greater than 50 percent shortage." Although this stage is required in the plan, the local characteristics of water demand in Santa Cruz that has been described in this document make for a unique and challenging situation when it comes to implementing higher levels of shortage reduction. When it comes to Stage 6, the approach in this plan is that the Santa Cruz Water Department does not plan on ever reaching this stage in a shortage. Even when it comes to Stages 4 and 5, our approach is that the department will do everything in its power in terms of water supply augmentation in order to never reach these higher stages of shortage.

As was stated in the introduction, today's Water Supply Augmentation Strategy contains a number of new elements that were not being considered at the time the excising WSCP was written. The new strategy focuses on in-lieu water exchanges, aquifer storage and recovery (ASR), advanced treated recycled water and/or desalination, as well as ongoing water conservation. It is the Department's policy that working on and developing these new water supplies will reduce the number of occasions that this WSCP will need to be implemented. Furthermore, even small water supply augmentation efforts such as ASR or transferring water to neighboring water agencies for groundwater banking and eventual use during a shortage, these projects can make incremental additions to water supplies that can decrease chances that a low level shortage will occur.

In terms of a Stage 6 Catastrophic Water Shortage, Santa Cruz takes the position that this level of shortage would most like only occur due to a major disaster that caused significant damage to our water treatment and/or distribution infrastructure. In such a disaster, such as a large earthquake, the Santa Cruz response would not come from this WSCP, but rather from the main Santa Cruz Water Department Emergency Response Plan.

Chapter 16.01
WATER SHORTAGE REGULATIONS AND RESTRICTIONS

Sections:

16.01.010 FINDINGS.

Whereas, the city of Santa Cruz water system draws almost exclusively on local surface water sources, whose yield varies from year to year depending on the amount of rainfall received and runoff generated during the winter season; and

Whereas, the city water system is susceptible to water shortages in dry and critically dry years or in periods of prolonged regional drought when water conditions characterized by low surface flows in the north coast streams and San Lorenzo River sources, depleted storage in Newell Creek Reservoir, or both, reduce the available supply to a level that cannot support seasonal water demand; and

Whereas, on March 10, 2009, the city council of the city of Santa Cruz adopted an updated water shortage contingency plan that describes how the city will respond to future water shortages and lists the various actions the city would take to reduce water demand under different water shortage scenarios ranging from five percent or less up to and including a fifty percent seasonal water supply deficiency; and

Whereas California Water Code Sections 350 et seq. authorize water suppliers, after holding a properly noticed public hearing and after making certain findings, to declare a water shortage (emergency) and to adopt such regulations and restrictions to conserve the water supply for the greatest public benefit with particular regard for domestic use, sanitation, and fire protection; and

Whereas, the voluntary and mandatory water conservation measures and progressive restrictions on water use and method of use set forth herein provide an effective and immediately available means of conserving water which is essential during periods of water shortage to ensure a reliable and sustainable minimum supply of water for the public health, safety, and welfare and to preserve valuable limited reservoir storage, avoid depleting water storage to an unacceptably low level, and thereby lessen the possibility of experiencing more critical shortages if dry conditions continue or worsen; and

Whereas, the usage allotments hereinafter established will equitably spread the burden of restricted and prohibited usage in a manner prescribed by the city's water shortage contingency plan over all city water department customers and other consumers of city water; and

Whereas, the purposes of this chapter are to conserve the water supply of the city of Santa Cruz for the greatest public benefit, to mitigate the effects of a water supply shortage on public health and safety and economic activity, and to budget water use so that a reliable and sustainable minimum supply of water will be available for the most essential purposes for the entire duration of the water shortage.

(Ord. 2010-12 § 2 (part), 2010).

16.01.020 DECLARATION OF WATER SHORTAGE.

The provisions of this chapter shall take effect whenever the director, upon engineering analysis of city water supplies, finds and determines that a water shortage exists or is imminent within the city of Santa Cruz water service area and a declaration of a water shortage is made by a resolution of the city council, and they shall remain in effect for the duration of the water shortage set forth in the resolution.

(Ord. 2010-12 § 2 (part), 2010).

16.01.030 APPLICATION OF REGULATIONS. SHARE

The provisions of this chapter shall apply to all persons using or consuming water both inside and outside the city and within the city water service area, and regardless of whether any person using water shall have a contract for water service with the city.

(Ord. 2010-12 § 2 (part), 2010).

16.01.040 PRECEDENCE OF REGULATIONS. SHARE

Where other provisions of the municipal code, whether enacted prior or subsequent to this chapter, are inconsistent with the provisions of this chapter, the provisions of this chapter shall supersede and control for the duration of the water shortage set forth in the resolution of the city council.

(Ord. 2010-12 § 2 (part), 2010).

16.01.050 DEFINITIONS. SHARE

(a) "Director" refers to the director of the city of Santa Cruz water department.

(b) "Water" refers to water produced and served by the city of Santa Cruz water department.

(c) "City" refers to the city of Santa Cruz.

(d) "Water department" refers to the city of Santa Cruz water department.

(e) "Seasonal water demand" refers to the demand, measured in gallons, placed by customers on the city water supply between April 1st and October 31st each calendar year.

(f) Issue/Declare. Whenever this chapter references the director's issuance or declaration of an alert, warning, emergency, or regulation, said alert, warning, emergency or regulation shall be put into effect by the placement of a legal advertisement in a newspaper of general circulation, by a posting on the city's Internet website and by a posting in the following public places: Santa Cruz City Hall, 809 Center Street, Santa Cruz; Santa Cruz Water Department Office, 212 Locust Street, Santa Cruz; Capitola City Hall, 420 Capitola Avenue, Capitola; and the Santa Cruz County Governmental Center, 701 Ocean Street, Santa Cruz. Any such alert, warning, emergency or regulation shall take effect upon the date of its publication in the Santa Cruz Sentinel.

(g) "Customer" shall refer to any account customer of the city of Santa Cruz water department as well as to any consumer of city water who may not be a city of Santa Cruz water department account customer.

(h) “Dry year” refers to the type of water year under the city’s water year classification system, which begins October 1st and ends September 30th, in which the total annual discharge of the San Lorenzo River at Felton measures between twenty-nine thousand and forty-nine thousand acre-feet.

(i) “Critically dry year” refers to the type of water year under the city’s water year classification system, which begins October 1st and ends September 30th, in which the total annual discharge of the San Lorenzo River at Felton measures less than twenty-nine thousand acre-feet.

(j) “Independent hearing officer” refers to a person appointed by the city to preside at administrative hearings pursuant to Title 4 of this code.

(Ord. 2015-07 § 1, 2015: Ord. 2010-12 § 2 (part), 2010).

16.01.055 WATER DEPARTMENT CUSTOMER CLASSIFICATIONS/ALLOCATIONS.

For determining a water department customer’s water allocation during a declared water shortage under this chapter and for all other purposes under this title, the following customer classification definitions shall apply based on the customer’s ownership or occupation of the following types of property served by the water department:

(a) 1. Single-Family Residential. Individually metered residential dwelling units (regardless of housing type). This classification shall apply whether or not the residential dwelling unit is being put to a use other than, or in addition to, residential use, and whether or not the residential use is permanent or transient in nature including use as a vacation rental unit. A residential dwelling unit is considered an occupant’s permanent residence when, on average, the occupant resides in the unit for at least twenty-one days within each monthly water service period.

2. Multiple-Family Residential. Any residential account with more than one residential dwelling unit served by one water meter. This classification shall apply whether or not the residential dwelling units are being put to a use other than, or in addition to, residential use and whether or not the residential use is permanent or transient in nature including use as a vacation rental unit. A residential dwelling unit is considered an occupant’s permanent residence when, on average, the occupant resides in the unit for at least twenty-one days within each monthly water service period.

3. Business. Commercial establishments including restaurants, hotel/motel, retail, medical, schools, offices, churches and mixed-use buildings. This category also includes county and state government accounts.

4. Industry/UCSC. This category is comprised of one primary customer, the University of California, Santa Cruz, and a small number of manufacturing businesses.

5. Municipal. This category is comprised of city-owned and operated facilities such as city offices, parks, police and fire stations, water and wastewater treatment plants, street medians, and parking lots.

6. Irrigation. Dedicated water services for landscape irrigation associated with large multiple residential complexes and homeowners associations, or with commercial, industrial, and institutional sites, including schools, churches, and parks.

7. Golf Irrigation. Accounts serving the two golf courses in the water service area.

8. Coast Irrigation. Agricultural accounts receiving untreated water on the north coast.

9. Miscellaneous. Other uses such as temporary construction accounts, hydrant meters, and bulk water sales.

(b) Residency. For the purpose of determining residential water rationing allotments under water shortage Stages 3, 4 or 5 of this chapter, the number of persons in each household shall be determined by calculating the number of that household's permanent residents. A permanent resident is an occupant who resides in the subject residential dwelling unit, on average, for at least twenty-one days within each monthly water service period.

(Ord. 2015-07 § 2, 2015).

16.01.060 WATER WASTE PROHIBITIONS.

It shall be unlawful during any water shortage stage for any person, firm, partnership, association, corporation, political entity (including the city) or any other water department customer to use water for any of the following:

(a) Fire Hydrants. Use of water from any fire hydrant unless specifically authorized by permit from the city, except by regularly constituted fire protection agencies for fire suppression purposes, or for other authorized uses, including distribution system flushing, fire flow testing, and filling of approved vehicles for sewer system flushing, storm drain maintenance, and street sweeping purposes.

(b) Watering/Irrigation. The watering of grass, lawn, groundcover, shrubbery, open ground, crops and trees, including agricultural irrigation, in a manner or to an extent that causes or allows excessive water flow or runoff onto an adjoining sidewalk, driveway, street, gutter or ditch.

(c) Plumbing Leaks. The escape of water through leaks, breaks, or other malfunctions within the water user's plumbing or distribution system for any period of time after such break or leak should have reasonably been discovered and corrected. It shall be presumed that a period of twenty-four hours after the water user discovers such break, leak or malfunction, or receives notice from the city of such condition, whichever occurs first, is a reasonable time within which to correct such condition or to make arrangements for correction.

(d) Washing of Exterior Surfaces. The washing of sidewalks, walkways, driveways, parking lots, patios, or other exterior surfaces unless the hose is equipped with an automatic shutoff nozzle.

(e) Cleaning of Structures and Vehicles. The cleaning of building exteriors, mobile homes, cars, boats, and recreational vehicles unless the hose is equipped with an automatic shutoff nozzle.

(f) Fountains and Decorative Water Features. The operation of a water fountain or other decorative water feature that does not use re-circulated water.

(g) Commercial Car Washes. The washing of vehicles at a commercial car wash unless the facility utilizes water recycling equipment, or operates on a timer for a limited time period and shuts off automatically at the expiration of the time period.

(h) Construction. The use of potable water for dust control or soil compaction purposes in construction activities where there is a reasonably available source of reclaimed water appropriate for such use.

(i) The indiscriminate running of water or washing with water, not otherwise prohibited in this section which is wasteful and without reasonable purpose.

(Ord. 2010-12 § 2 (part), 2010).

16.01.070 STAGE 1: WATER SHORTAGE ALERT.

(a) The director is empowered to issue a water shortage alert and to enforce the water shortage restrictions in this section upon finding that the magnitude of an anticipated water shortage, per the criteria delineated in the city's adopted water shortage contingency plan, will be five percent and a minimal consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water supply conditions. In a Stage 1 water shortage, the city will enforce the following water shortage restrictions with the objective of realizing a seasonal water demand reduction of one hundred twenty-five million gallons or an average daily water demand reduction of six hundred thousand gallons.

(b) During Stage 1, it shall be unlawful for any person, firm, partnership, association, corporation, political entity (including the city) or any other water department customer:

1. To water or irrigate lawn, landscape, or other vegetated area between the hours of 10:00 a.m. and 5:00 p.m., except when performed with a bucket or watering can, or by use of a drip irrigation system or similar low volume, nonspray irrigation equipment, or for very short periods of time for the express purpose of allowing landscape contractors to adjust or repair an irrigation system;

2. To use a hose that is not equipped with a shutoff nozzle;

3. To use potable water to wash down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking lots, tennis courts, patios, or other paved surfaces, except when it is necessary to alleviate safety or sanitation hazards or to prepare paved surfaces for sealing;

4. To initially fill or to drain and refill residential swimming pools;

5. To serve water in a restaurant or other commercial food service establishment except upon the request of a patron; and/or

6. To operate a hotel, motel or other commercial lodging establishment without offering patrons the option to forego the daily laundering of towels, sheets and linens.

(Ord. 2010-12 § 2 (part), 2010).

16.01.080 STAGE 2: WATER SHORTAGE WARNING.

(a) The director is empowered to issue a water shortage warning and to enforce the water shortage restrictions in this section upon finding that the magnitude of an anticipated water shortage, per the criteria delineated in the city's adopted water shortage contingency plan, will be between five percent and fifteen percent and a moderate consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water supply conditions. In a Stage 2 water shortage, the city will enforce the following water shortage restrictions with the objective of realizing a seasonal water demand reduction of up to three hundred seventy-five million gallons and an average daily water demand reduction of up to one million eight hundred thousand gallons.

(b) During Stage 2, it shall be unlawful for any person, firm, partnership, association, corporation, political body (including the city) or other water department customer:

1. To water or irrigate lawn, landscape, or other vegetated area between the hours of 10:00 a.m. and 5:00 p.m., except when performed with a bucket or watering can, or by use of a drip irrigation system or similar low volume, nonspray irrigation equipment, or for very short periods of time for the express purpose of allowing landscape contractors to adjust or repair an irrigation system;

2. To use a hose that is not equipped with a shutoff nozzle;

3. To use potable water to wash down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking lots, tennis courts, patios, or other paved surfaces, except when it is necessary to alleviate safety or sanitation hazards or to prepare paved surfaces for sealing;

4. To initially fill or to drain and refill residential swimming pools;

5. To serve water in a restaurant or other commercial food service establishment except upon the request of a patron;

6. To operate a hotel, motel or other commercial lodging establishment without offering patrons the option to forego the daily laundering of towels, sheets and linens;

7. To water or irrigate lawn, landscape, or other vegetated area on days of the week other than the two days of the week authorized and publicized by the director, except when performed with a bucket or watering can, or by use of a drip irrigation system or similar low volume, nonspray irrigation equipment, or for very short periods of time for the express purpose of allowing landscape contractors to adjust or repair an irrigation system. Hourly restrictions set forth in subsection (b)(1) continue to apply on authorized watering days. This provision shall not apply to commercial growers/nurseries or to residential vegetable gardens/edible plantings watered with a hose equipped with a shutoff nozzle;

8. To water or irrigate lawn, landscape, or other vegetated area using an automatic irrigation system for more than fifteen minutes per watering station per assigned day. This provision shall not apply to automatic irrigation systems exclusively using low output sprinkler equipment, including rotors, stream rotors, or micro-spray systems;

9. To wash the exterior of dwellings, buildings or structures (with the exception of window washing and preparation of property for painting or for sale);

10. To irrigate or water landscapes in a manner that conflicts with a customer's landscape irrigation water budget when such a budget is required by the director per the criteria delineated in the city's adopted water shortage contingency plan; and/or

11. To disobey water department direction to large commercial, industrial or irrigation customers using one thousand three hundred thirty-seven or more billing units (one million gallons) per year to conduct water use audits, to prepare water conservation plans and to submit progress reports, or to immediately repair water system leaks, including leaks attributable to faulty pipes or fixtures.

(Ord. 2010-12 § 2 (part), 2010).

16.01.090 STAGE 3: WATER SHORTAGE EMERGENCY. SHARE

(a) The director is empowered to declare a water shortage emergency and to enforce the water shortage restrictions in this section upon finding that the magnitude of an anticipated water shortage, per the criteria delineated in the city's adopted water shortage contingency plan, will be between fifteen percent and twenty-five percent and a significant consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water supply conditions. In a Stage 3 water shortage, the city will enforce the following water shortage restrictions with the objective of realizing a seasonal water demand reduction of up to six hundred twenty-five million gallons and an average daily water demand reduction of up to three million gallons.

(b) During Stage 3, it shall be unlawful for any person, firm, partnership, association, corporation, political body (including the city) or other water department customer:

1. To water or irrigate lawn, landscape, or other vegetated area between the hours of 10:00 a.m. and 5:00 p.m., except when performed with a bucket or watering can, or by use of a drip irrigation system or similar low volume, nonspray irrigation equipment, or for very short periods of time for the express purpose of allowing landscape contractors to adjust or repair an irrigation system;

2. To use a hose that is not equipped with a shutoff nozzle;

3. To use potable water to wash down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking lots, tennis courts, patios, or other paved surfaces, except when it is necessary to alleviate safety or sanitation hazards or to prepare paved surfaces for sealing;

4. To initially fill or to drain and refill swimming pools;

5. To serve water in a restaurant or other commercial food service establishment except upon the request of a patron;

6. To operate a hotel, motel or other commercial lodging establishment without offering patrons the option to forego the daily laundering of towels, sheets and linens;

7. To water or irrigate lawn, landscape, or other vegetated area on days of the week other than the specified day(s) of the week authorized and publicized by the director, except when performed with a bucket or watering can, or by use of a drip irrigation system or similar low volume, nonspray irrigation equipment, or for very short periods of time for the express purpose of allowing landscape contractors to adjust or repair an irrigation system. Hourly restrictions set forth in subsection (b)(1) continue to apply on authorized watering days. This provision shall not apply to commercial growers/nurseries or to residential vegetable gardens/edible plantings watered with a hose equipped with a shutoff nozzle;

8. To water or irrigate lawn, landscape, or other vegetated area using an automatic irrigation system for more than ten minutes per watering station per assigned day. This provision shall not apply to automatic irrigation systems exclusively using low output sprinkler equipment, including rotors, stream rotors, or micro-spray systems;

9. To apply potable water to outdoor landscapes during and within forty-eight hours after measurable rainfall;

10. To wash the exterior of dwellings, buildings or structures (with the exception of window washing and preparation of property for painting or for sale);

11. To irrigate or water landscapes in a manner that conflicts with a customer's landscape irrigation water budget when such a budget is required by the director per the criteria delineated in the city's adopted water shortage contingency plan;

12. To disobey water department direction to large commercial, industrial or irrigation customers using one thousand three hundred thirty-seven or more billing units (one million gallons) per year to conduct water use audits, to prepare water conservation plans and to submit progress reports, or to immediately repair water system leaks, including leaks attributable to faulty pipes or fixtures;

13. To violate residential customer water rationing regulations, including regulations intended to preclude excessive water usage and specifying maximum water usage limitations, issued by the director in accordance with guidelines set forth in the city's adopted water shortage contingency plan; and/or

14. To disobey water department directives issued to commercial customers requiring the prominent placement of "Save Water" signage at specified locations at the customer's premises.

(Ord. 2015-07 § 3, 2015: Ord. 2010-12 § 2 (part), 2010).

16.01.100 STAGE 4: SEVERE WATER SHORTAGE EMERGENCY.

(a) The director is empowered to declare a severe water shortage emergency and to enforce the water shortage restrictions in this section upon finding that the magnitude of an anticipated water shortage, per the criteria delineated in the city's adopted water shortage contingency plan, will be between twenty-five percent and thirty-five percent and an extraordinary consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water supply conditions. In a Stage 4 water shortage, the city will enforce the following water shortage restrictions with the objective of realizing a seasonal water demand reduction of up to eight hundred seventy-five million gallons and an average daily water demand reduction of up to four million two hundred thousand gallons.

(b) During Stage 4, it shall be unlawful for any person, firm, partnership, association, corporation, political body (including the city) or other water department customer:

1. To water or irrigate landscape or other vegetated area between the hours of 10:00 a.m. and 5:00 p.m., except when performed with a bucket or watering can, or by use of a drip irrigation system or similar low volume, nonspray irrigation equipment, or for very short periods of time for the express purpose of allowing landscape contractors to adjust or repair an irrigation system;

2. To use a hose that is not equipped with a shutoff nozzle;

3. To use potable water to wash down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking lots, tennis courts, patios, or other paved surfaces, except when it is necessary to alleviate safety or sanitation hazards or to prepare paved surfaces for sealing;

4. To fill or to top off any swimming pools, outdoor spas, wading pools, and ornamental water features;

5. To serve water in a restaurant or other commercial food service establishment except upon the request of a patron;

6. To operate a hotel, motel or other commercial lodging establishment without offering patrons the option to forego the daily laundering of towels, sheets and linens;

7. To water or irrigate landscape or other vegetated area on days of the week other than the specified day(s) of the week authorized and publicized by the director, except when performed with a bucket or watering can, or by use of a drip irrigation system or similar low volume, nonspray irrigation equipment, or for very short periods of time for the express purpose of allowing landscape contractors to adjust or repair an irrigation system. Hourly restrictions set forth in subsection (b)(1) continue to apply on authorized watering days. This provision shall not apply to commercial growers/nurseries or to residential vegetable gardens/edible plantings watered with a hose equipped with a shutoff nozzle;

8. To water landscapes using automatic irrigation systems for more than ten minutes per watering station per assigned day. This provision does not apply to automatic irrigation systems using water-efficient devices, including but not limited to weather-based controllers, drip/micro-irrigation systems and stream rotor sprinklers;

9. To wash the exterior of dwellings, buildings or structures (with the exception of window washing and preparation of property for painting or for sale);

10. To irrigate or water landscapes in a manner that conflicts with a customer's landscape irrigation water budget when such a budget is required by the director per the criteria delineated in the city's adopted water shortage contingency plan;

11. To disobey water department direction to large commercial, industrial or irrigation customers using one thousand three hundred thirty-seven or more billing units (one million gallons) per year to conduct water use audits, to prepare water conservation plans and to submit progress reports, or to immediately repair water system leaks, including leaks attributable to faulty pipes or fixtures;

12. To violate residential customer water rationing regulations, including regulations intended to preclude excessive water usage and specifying maximum water usage limitations, issued by the director in accordance with guidelines set forth in the city's adopted water shortage contingency plan;

13. To disobey water department directives issued to commercial customers requiring the prominent placement of "Save Water" signage at specified locations at the customer's premises;

14. To violate commercial customer water rationing regulations, including regulations intended to preclude excessive water usage and specifying maximum water usage limitations, issued by the director in accordance with guidelines set forth in the city's adopted water shortage contingency plan;

15. To disobey a water department order to customers identified as "dedicated irrigation accounts" directing those customers to further limit their landscape irrigation and watering activity so as to preserve only the customers' most valuable trees and plants;

16. To water lawns or turf, unless such watering is authorized by the director in accordance with a landscape irrigation water budget and is consistent with the guidelines set forth in the city's adopted water shortage contingency plan;

17. To install new landscaping which requires any irrigation or watering;

18. To wash or clean vehicles, including but not limited to automobiles, trucks, vans, buses, motorcycles, boats, or trailers, including the washing of fleet vehicles and the washing of vehicles on dealer lots. This restriction will not apply to commercial car wash businesses which use recycled water; and/or

19. To exercise any rights conferred by hydrant and bulk water permits that were issued prior to the severe water shortage emergency declaration absent special permission granted by the director. Said special permission may be granted only for projects necessary to protect the public health, safety and welfare where no alternative to potable water exists and for emergency response purposes.

(Ord. 2010-12 § 2 (part), 2010).

16.01.110 STAGE 5: CRITICAL WATER SHORTAGE EMERGENCY.

(a) The director is empowered to declare a critical water shortage emergency and to enforce the water shortage restrictions in this section upon finding that the magnitude of an anticipated water shortage, per the criteria delineated in the city's adopted water shortage contingency plan, shall be between thirty-five percent and fifty percent and an extreme consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water supply conditions. In a Stage 5 water shortage, the city will enforce the following water shortage restrictions with the objective of realizing a seasonal water demand reduction of up to one billion two hundred fifty million gallons and an average daily water demand reduction of up to six million gallons.

(b) During Stage 5, it is unlawful for any person, firm, partnership, association, corporation, political body (including the city) or other water department customer:

1. To water or irrigate any outdoor landscaping, unless such watering is authorized by the director and is consistent with the guidelines set forth in the city's adopted water shortage contingency plan;

2. To use a hose that is not equipped with a shutoff nozzle;

3. To use water for any outdoor washing purpose including commercial car washing, window washing, and paint preparation;

4. To fill or to top off any swimming pools, outdoor spas, wading pools, and ornamental water features;

5. To serve water in a restaurant or other commercial food service establishment except upon the request of a patron;

6. To operate a hotel, motel or other commercial lodging establishment without offering patrons the option to forego the daily laundering of towels, sheets and linens;

7. To use water for recreational purposes;

8. To operate public swimming pools;

9. To operate public showers;

10. To disobey water department direction to large commercial, industrial or irrigation customers using one thousand three hundred thirty-seven or more billing units (one million gallons) per year to conduct water use audits, to prepare water conservation plans and to submit progress reports, or to immediately repair water system leaks, including leaks attributable to faulty pipes or fixtures;

11. To violate residential customer water rationing regulations, including regulations intended to preclude excessive water usage and specifying maximum water usage limitations, issued by the director in accordance with guidelines set forth in the city's adopted water shortage contingency plan;

12. To violate commercial customer water rationing regulations, including regulations intended to preclude excessive water usage and specifying maximum water usage limitations, issued by the director in accordance with guidelines set forth in the city's December 2008 water shortage contingency plan;

13. To disobey water department directives issued to commercial customers requiring the prominent placement of "Save Water" signage at specified locations at the customer's premises;

14. To install new landscaping which requires any irrigation or watering; and/or

15. To exercise any rights conferred by hydrant and bulk water permits that were issued prior to the critical water shortage emergency declaration absent special permission granted by the director. Said special permission may be granted only for projects necessary to protect the public health, safety and welfare where no alternative to potable water exists and for emergency response purposes.

(Ord. 2010-12 § 2 (part), 2010).

16.01.120 EXCEPTIONS.

(a) The director, upon application made in writing by a customer on a form promulgated by the water department and accompanied by supporting documentation, shall be authorized to issue an exception from the strict application of any restriction, regulation or prohibition enforced pursuant to this chapter, upon the customer's production of substantial evidence demonstrating the existence of one or more of the following circumstances that are particular to that customer and which are not generally shared by other water department customers:

1. Exceptions Applicable to All Water Department Customers:

A. Failure to approve the requested exception would cause a condition having an adverse effect on the health, sanitation, fire protection, or safety of the customer or members of the public served by the customer;

B. Alternative restrictions to which the customer is willing to adhere are available that would achieve the same level of demand reduction as the restriction for which an exception is being sought and such alternative restrictions are enforceable by the water department;

C. Circumstances concerning the customer's property or business have changed since the implementation of the subject restriction warranting a change in the customer's water usage allocation.

2. Exceptions Applicable Only to Water Department Nonresidential Customers. For purposes of this subsection a residential dwelling unit which is used as a vacation rental shall not be classified as a business.

A. Strict application of the subject restriction, regulation or prohibition would impose a severe or undue hardship on a particular business customer or render it infeasible for a particular business customer or class of business customers to remain in operation;

B. A hospital or health care facility customer using industry best management practices is eligible for an exception upon demonstrating that the subject restriction, regulation or prohibition is interfering with or preventing it from providing health care service to its customers in accordance with industry hygiene, sanitation and health care standards; or

C. A business customer has already implemented environmental sustainability measures that have reduced water consumption to the maximum extent feasible. As used in this subsection the term "environmental sustainability measures" refers to installation of high efficiency plumbing fixtures, devices, equipment, and appliances, recycled water systems, and landscaping consisting exclusively of low-water-using plant materials using drip or similar high efficiency, nonspray irrigation systems, or to buildings that are designed, built, and continuously operated according to Leadership in Energy and Environmental Design (LEED) certification standards.

(b) In order to qualify for an exception, a customer must first complete a self water audit pursuant to standards and procedures promulgated by the water department. This audit shall be made part of the customer's exception application and water conservation measures indicated by the audit may be incorporated as conditions of approval to an exception in addition to any other conditions of approval imposed by the director in connection with the director's approval of the customer's exception application.

(Ord. 2015-07 § 4, 2015: Ord. 2010-12 § 2 (part), 2010).

16.01.130 WATER SHORTAGE APPEALS.

(a) A water shortage appeal procedure is hereby established which shall apply upon the director's issuance of any water shortage declaration and the implementation of water shortage restrictions pursuant to Sections 16.01.070 through 16.01.110. Thereafter during the declared water shortage, independent hearing officers shall be appointed to hear and rule upon water shortage appeals filed in accordance with this section.

(b) Any customer who considers an action taken by the director or an enforcement official under the provisions of this chapter, including actions on exception applications and the assessment of administrative penalties, to have been erroneously taken or issued may appeal that action or penalty in the following manner:

1. The appeal shall be made in writing, shall state the nature of the appeal specifying the action or penalty that is being appealed and the basis upon which the action or penalty is alleged to be in error. Penalty appeals shall include a copy of the notice of violation;

2. An appeal, to be effective, must be received by the director not later than ten business days following the date of the notice of violation or the date that the director took the action which is the subject of the appeal;

(A) A water service resident who is not an account customer may notify the water department of his or her intention to file a petition to force the resident's account customer to appeal an excess water use penalty within ten business days following the penalty;

(B) If the water department has been given a notice of intention to file a petition per subsection (b)(2)(A) by a water service area resident who is not an account customer, the appeal from the account customer must be received within fifteen business days after the account customer has been petitioned by the resident;

3. The director shall schedule the appeal for consideration by an independent hearing officer. The independent hearing officer shall hear the appeal within ninety days of the date of the appeal and issue its decision within thirty days of the date of the hearing;

4. The decision of the independent hearing officer shall be final. In ruling on appeals, the independent hearing officer shall strictly apply the provisions of this chapter, and shall not impose or grant terms and conditions not authorized by this chapter.

(Ord. 2015-07 § 5, 2015: Ord. 2010-12 § 2 (part), 2010).

16.01.140 ADMINISTRATIVE ENFORCEMENT.

(a) Any person, firm, partnership, association, corporation, political entity or other water department customer violating any provision of this chapter may be assessed an administrative penalty.

(b) Each and every day a violation of this chapter exists constitutes a separate and distinct offense for which an administrative penalty may be assessed.

(c) Penalties. The purpose of the administrative penalties assessed pursuant to this section is to assure future chapter compliance by the cited customer through the imposition of increasingly significant penalties so as to create a meaningful disincentive to commit future chapter violations. In acknowledgment of the fact that the city's water is a scarce and irreplaceable commodity and that this chapter is intended to equitably distribute that commodity among water department customers and to assure that, to the extent feasible, city water is conserved and used only for purposes deemed necessary for public health and safety, the penalty schedule herein prescribed is not to be construed as creating a "water pricing" structure pursuant to which customers may elect to pay for additional water at significantly higher rates. To this end, a customer's repeated violation of this chapter shall result in either the installation of a flow restriction device or disconnection of the customer's property from the city's water service system at the customer's cost.

(d) Administrative penalties for failure to comply with water waste prohibition requirements in Section 16.01.060 or mandatory water use restrictions and regulations commencing with Stage 1 in Section 16.01.070 are as follows:

1. First Offense. Written notice of violation and opportunity to correct violation.

2. Second Offense. A second violation within the preceding twelve calendar months is punishable by a fine not to exceed one hundred dollars.

3. Third Offense. A third violation within the preceding twelve calendar months is punishable by a fine not to exceed two hundred fifty dollars.

4. Fourth Offense. A fourth violation within the preceding twelve calendar months is punishable by a fine not to exceed five hundred dollars. In addition to any fines, the director may order a water flow restrictor device be installed.

5. Large Customers. Administrative penalties for customers that use an average of one thousand three hundred thirty-seven billing units (one million gallons) or more per calendar year shall be triple the amounts listed above.

6. Discontinuing Service. In addition to any fines and the installation of a water flow restrictor, the director may disconnect a customer's water service for willful violations of mandatory restrictions and regulations in this chapter. Upon disconnection of water service, a written notice shall be served upon the customer which shall state the time, place, and general description of the prohibited or restricted activity and the method by which reconnection can be made.

(e) Excessive Water Use Penalties. An excessive use penalty shall be assessed where the customer, during any given billing cycle, uses more than the customer's water allotment per the director's water rationing regulations issued pursuant to this chapter commencing with Stage 3 in Section 16.01.090. Excess use penalties shall be in addition to ordinary water consumption charges, as follows:

1. One percent to ten percent over customer rationing allotment: not to exceed twenty-five dollars/CCF.

2. More than ten percent over customer rationing allotment: not to exceed fifty dollars/CCF.

3. In addition to any excess use penalties, the director may order a water flow restrictor device be installed and/or may disconnect a customer's water service for willful violations of the water rationing regulations in this chapter. Upon disconnection of water service, a written notice shall be served upon the customer which shall state the time, place, and general description of the prohibited or restricted activity and the method by which reconnection can be made.

4. The director is authorized to develop administrative policies and procedures for the waiver of excessive water use penalties.

(f) Cost of Flow Restrictor and Disconnecting Service. A person or entity that violates this chapter is responsible for payment of charges for installing and/or removing any flow-restricting device and for disconnecting and/or reconnecting service in accordance with the city's miscellaneous water service fee resolution then in effect. The charge for installing and/or removing any flow restricting device must be paid before the device is removed. Nonpayment will be subject to the same remedies as nonpayment of basic water rates.

(g) Notice and Hearing. The director will issue a notice of violation by mail or personal delivery at least ten business days before taking any enforcement action described in subsection (d). Such notice must describe the violation and the date by which corrective action must be taken. A customer may appeal the notice of violation by filing a written notice of appeal with the city no later than the close of the business day before the date scheduled for enforcement action, accompanied by a twenty-five-dollar appeal fee. Any notice of violation not timely appealed will be final. Upon receipt of a timely appeal, a hearing on the appeal will be scheduled, and the city will mail written notice of the hearing date to the customer at least ten days before the date of the hearing. Pending receipt of a written appeal or pending a hearing pursuant to an appeal, the director may take appropriate steps to prevent the unauthorized use of water as appropriate to the nature and extent of the violation and the current declared water shortage condition.

(Ord. 2015-07 § 6, 2015: Ord. 2010-12 § 2 (part), 2010).

16.01.150 ADDITIONAL ENFORCEMENT AUTHORITY.

In addition to the remedies referenced above, the director is empowered to pursue any additional remedies necessary, including criminal, civil and administrative remedies listed in Title 4 of the Santa Cruz Municipal Code, to correct a violation of this chapter.

(Ord. 2010-12 § 2 (part), 2010).

16.01.160 SEVERABILITY. SHARE

If any portion of this chapter is held to be unconstitutional, it is the intent of the city council that such portion of the chapter be severable from the remainder and that the remainder be given full force and effect.

(Ord. 2010-12 § 2 (part), 2010).