



# AGENDA

## Water Shortage Task Force

Suzanne McCombs, Task Force Chair  
Edward McCombs, Task Force Vice Chair  
Bryan Bondy, Task Force Member  
Ted Cook, Task Force Member  
Rob Corley, Task Force Member  
Diane de Mailly, Task Force Member  
Douglas Hahn, Task Force Member

Don Jensen, Task Force Member  
Robert McCord, Task Force Member  
Marty Melvin, Task Force Member  
Don Mills, Task Force Member  
Ed Summers, Task Force Member  
Diane Underhill, Task Force Member

### TASK FORCE MEETING

TUESDAY, SEPTEMBER 23, 2014, 6:00 P.M.

VENTURA WATER MAINTENANCE YARD, 336 SANJON ROAD, VENTURA

### ROLL CALL

### COMMITTEE ITEMS

#### 1. APPROVAL OF MINUTES, SPECIAL MEETING ON SEPTEMBER 9, 2014

Recommendation: Approve August 26, 2104 meeting minutes

#### 2. CITY COUNCIL ACTION ON WATER SHORTAGE EMERGENCY RESOLUTION AND MANDATORY WATER RESTRICTION ORDINANCE

Staff: Shana Epstein, Ventura Water General Manager

Recommendation: Receive communication.

#### 3. HISTORICAL PRODUCTION 2004-2014

Staff: Ryan Kintz, Environmental Services Specialist

Recommendation: Receive and file report.

#### 4. WATER SHORTAGE CONTINGENCY PLAN WORKSHOP

Staff: Karen Waln, Management Analyst

Recommendation: Participate in a Water Shortage Contingency Plan workshop to brainstorm policy ideas on the topics of: 1) Water Shortage Stages; (2) Conservation Measures Associated with Water Shortage Stages; and (3) A Water Shortage Allocation Program.

- 5. PUBLIC COMMENT –** (For items not listed on this agenda, but within the jurisdiction of the Task Force. Note that no general discussion of such items, or action on such items, may be taken by the Task Force. At this time, the Task Force will provide an opportunity for the public to address them on any subject, which is not scheduled on this Agenda but is within the jurisdiction of the Task Force. Comments are limited to three (5) minutes.)

**6. ADJOURNMENT – NEXT MEETING OCTOBER 8, 2014**

Minutes relating to this agenda are available in the Ventura Water Office, 336 Sanjon Road, Ventura, during normal business hours as well as on the City's Web Site – [www.venturawater.net](http://www.venturawater.net). Materials related to an agenda item submitted to the Ventura Water Department after distribution of the agenda packet are available for public review at the Ventura Water Office.

This agenda was posted on Thursday, September 18, 2014 at 3:00 p.m. in the Ventura Water Office, City Clerk's Office, on the City Hall Public Notices Board, and on the Internet.

In compliance with the Americans with Disabilities Act, if you need assistance to participate in this meeting, please contact the Ventura Water Office at (805) 652-4503 or the California Relay Service at (866) 735-2929. Notification by Monday, September 22, 2014, at 5:00 p.m. will enable the City to make reasonable arrangements for accessibility to this meeting.





Agenda Item Number 1  
Approval of Minutes  
September 9, 2014 Meeting  
September 23, 2014





# DRAFT MINUTES

## Water Shortage Task Force

Suzanne McCombs, Task Force Chair  
Edward McCombs, Task Force Vice Chair  
Bryan Bondy, Task Force Member  
Ted Cook, Task Force Member  
Rob Corley, Task Force Member  
Diane de Mailly, Task Force Member  
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Marty Melvin, Task Force Member  
Don Mills, Task Force Member  
Ed Summers, Task Force Member  
Diane Underhill, Task Force Member

Shana Epstein, Ventura Water General Manager

**SEPTEMBER 9, 2014**

The Water Shortage Task Force met in the City of Ventura Maintenance Yard Facility, Assembly Room, 336 Sanjon Road, Ventura, at 6:00 pm.

### ROLL CALL

Present: Chair Edward McCombs, Members Bryan Bondy, Ted Cook, Rob Corley, Diane de Mailly, Douglas Hahn, Don Jensen, Robert McCord, Don Mills, and Diane Underhill.

Absent: Suzanne McCombs, Marty Melvin and Ed Summers.

### TASK FORCE ITEMS

#### 1. APPROVAL OF MINUTES, SPECIAL MEETING ON AUGUST 26, 2014

Amended Recommendation: Add to Item 2 of August 26, 2014 meeting minutes that Steve Wickstrum of Casitas Municipal Water District was present and provided responses to questions.

Task Force Member Ted Cook moved to approve the amended recommendation. Task Force Member Rob Corely seconded. The vote was as follows:

AYES: All Present Task Force Members.

NOES: None.

Chair Edward McCombs declared the motion carried.

**2. INTRODUCTION OF TASK FORCE MEMBERS**

Recommendation: Task Force Members briefly introduce themselves.

Members of the public: None.

**3. EX PARTE COMMUNICATION**

Recommendation: Receive communication.

Speaker:

Staff: Shana Epstein, General Manager.

Member of the public: Dan Cormode.

**4. STATUS OF VENTURA WATER CONSERVATION OUTREACH**

Recommendation: Receive presentation.

Speaker:

Staff: Nancy Broschart, Management Analyst

Member of the public: Tim Farrell.

**5. CITYWIDE EFFORTS TO EDUCATE AND ACHIEVE CONSERVATION REDUCTION GOALS**

Recommendation: Receive presentation.

Speakers:

Staff: Teresa Purrington, Management Analyst, Ryan Kintz, Environmental Services Specialist.

Member of the public: Joseph Richardson.

Information submitted.

**6. IMPLEMENTAION OF MANDATORY MEASURES**

Recommendation:

A. Receive report and presentation;

Speaker:

Staff: Karen Waln, Management Analyst II

B. Amended Recommendation:

1) Prepare a resolution for the City Council recognizing the statewide water supply shortage emergency. Prepare an ordinance restricting outdoor irrigation of ornamental landscape or turf with potable water through an irrigation system between the hours of 9:00 a.m. and 6:00 p.m. Pacific Standard Time, and to be limited to two days a week. *A week being defined as Sunday through Saturday.*

Task Force Member Rob McCord moved to approve the amended recommendation. Task Force Member Diane deMailly seconded. The vote was as follows:

AYES: All Present Task Force Members.

NOES: None.

Chair Edward McCombs declared the motion carried.

2) Exceptions for:

- Short periods of time for the express purpose of adjusting or repairing an irrigation system,
- Low-flow drip irrigation systems; and
- Sports fields to maintain safe conditions.

Task Force Member Ted Cook moved to approve the amended recommendation. Task Force Member Rob Corely seconded. The vote was as follows:

AYES: All Present Task Force Members.

NOES: None.

Chair Edward McCombs declared the motion carried.

C. Approve Option A, the penalty structure of the City's Water Waste Ordinance contained in the City's municipal code, Division 22 – Public Utilities, Chapter 22.170 Water Conservation, which is currently being implemented for water waste regulation for noncompliance of mandatory water conservation regulations.

Task Force Member Rob McCord moved to approve the amended recommendation. Task Force Member Ted Cook seconded. The vote was as follows:

AYES: All Present Task Force Members.

NOES: None.

Chair Edward McCombs declared the motion carried.

Members of the public: Carol Lindberg and Leslie Purcell.

**7. VENTURA'S RECYCLED WATER SYSTEM AND SANTA CLARA RIVER ESTUARY STATUS UPDATE**

Recommendation: Receive report and presentation

Speaker:

Staff: Shana Epstein, Ventura Water General Manager

**8. HISTORICAL WATER PRODUCTION NUMBERS**

Recommendation: Receive and file report.

Speaker:

Staff: Ryan Kintz, Environmental Services Specialist

Member of the public: Dan Cormode.

**9. PUBLIC COMMENT**

**10. ADJOURNMENT**

The meeting was adjourned at 9:00 pm. The next meeting, Tuesday, September 23, 2014, at 6:00pm located at the Ventura Maintenance Yard Facility, 336 Sanjon Road, Ventura.

Minutes relating to this agenda are available in the Ventura Water Office, 336 Sanjon Road, Ventura, during normal business hours as well as on the City's Web Site – <a href="http://www.venturawater.net">www.venturawater.net</a> . Materials related to an agenda item submitted to the Ventura Water Department after distribution of the agenda packet are available for public review at the Ventura Water Office.
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This agenda was posted on Thursday September 4, 2014 at 5 p.m. in the Ventura Water Office, City Clerk's Office, on the City Hall Public Notices Board, and on the Internet.
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Agenda Item Number 2  
City Council Action on Water Shortage  
Emergency Resolution and Mandatory  
Water Restriction Ordinance  
September 23, 2014

(Copy of September 22<sup>nd</sup> Administrative Report, Water Shortage  
Emergency Resolution and Mandatory Water Restriction  
Ordinance submitted to City Council)



CITY OF VENTURA  
**ADMINISTRATIVE REPORT**

Date: September 17, 2014

Agenda Item No.: 3

Council Action Date: September 22, 2014

**To: Honorable Mayor and City Council**

**From: Mark D. Watkins, City Manager  
Shana Epstein, Ventura Water General Manager**

**Subject: Water Shortage Emergency Resolution and Mandatory Water  
Restriction Ordinance**

**RECOMMENDATION**

It is recommended that the City Council:

- A. Receive and accept recommendations for water use restrictions from the Water Shortage Task Force.
- B. Adopt a resolution declaring a water shortage emergency within the City's water service area.
- C. Adopt an emergency ordinance adopting water use regulations.

**COUNCIL PRIORITIES**

This program supports the City Council's goal of:

- Delivering Core Services.

**PREVIOUS COUNCIL ACTION**

July 21, 2014, the City Council approved the member composition and scope of work for the Water Supply Strategy Task Force and received information on the drought response mandated by the State Water Resources Control Board regarding Drought-Related Emergency Regulations for Urban Water Conservation and directed staff to implement actions as required.

The scope of work for the Task Force included providing recommendations on the Water Shortage Contingency Plan; water conservation measures; compliance of state mandatory water conservation regulations; and return to the City Council with recommendations.

July 7, 2014, the City Council approved a recommendation to receive information about the City's current water supply and demand status and outreach actions to reduce water usage in response to continuing drought conditions; provided feedback to staff on the development of a Water Shortage Contingency Plan to guide implementation of further water use restrictions, if they become necessary, and direct staff to return with a final Water Shortage Contingency Plan in September.

February 3, 2014, the City Council approved a recommendation to request customers to voluntarily reduce water usage by 10% and return in June with a proposed implementation plan for mandatory reductions should it be necessary to further reduce water use.

May 7, 2012, the City Council approved an amendment to the 2010 Urban Water Management Plan (UWMP) that was adopted by Council on June 20, 2011. The amendment addressed revisions requested by the Department of Water Resources to the previously adopted plan. A requirement of the approved plan is to have a Water Shortage Contingency Plan to provide a plan of action to be followed during the various stages of water shortage.

September 19, 2011, the City Council received a presentation at a special workshop regarding the proposed five-year Water Efficiency Plan. The City Council provided feedback and approved, in concept, the recommended strategy outlined in the plan to maintain or exceed current water efficiency levels over the next five years.

On April 3, 1989, the City Council adopted water waste prohibitions that are codified in the San Buenaventura Municipal Code in Chapter 22.170, "Water Conservation," at Section 22.170.010, "Water Waste Prohibited."

## **SUMMARY**

The State Water Resources Control Board (SWRCB) regulations require urban water suppliers to implement its Water Shortage Contingency Plan that imposes mandatory restrictions on outdoor irrigation of ornamental landscapes or turf with potable water. To comply with state mandate the City Council is asked to declare through resolution that a water shortage emergency condition prevails (Attachment A) and to adopt an ordinance adopting water use regulations that implement the State Water Resources Control Board regulations and to achieve the 20% reduction in water use required by Stage 3 of the City's Water Shortage Contingency Plan (Attachment B). A copy of the State adopted resolution and emergency regulations is attached (Attachment C).

The City's Water Shortage Task Force (Task Force) held meetings on August 13<sup>th</sup>, 26<sup>th</sup>, and September 9<sup>th</sup>, 2014, to define the regulations associated with water use restrictions that are most acceptable and appropriate for Ventura. The Task Force reviewed the City's Water Shortage Contingency Plan (Attachment D) and developed a recommendation to the City Council with regards to the SWRCB mandated regulations. The Task Force recommendations have been incorporated into the proposed emergency ordinance declaring a water shortage emergency and adopting water user regulations.

The Task Force's recommendation includes prohibiting outdoor irrigation of ornamental landscape or turf with potable water through an irrigation system between the hours of 9:00 am and 6:00 pm and limiting the use of irrigation systems to two days a week, (a week defined as Sunday through Saturday). Exemptions to the prohibition include:

- A. The operation of irrigation systems for short periods of time for the express purpose of adjusting or repairing.
- B. Low-flow drip irrigation systems.
- C. The irrigation of sports fields to maintain safe conditions.

Noncompliance of the ordinance would incur penalties consistent with the penalty structure currently imposed in the City's Water Waste Ordinance (Attachment E).

## **DISCUSSION**

The drought and low rainfall amounts have affected the City's water supplies. In a normal year, each local source (Lake Casitas, Ventura River and groundwater wells) generally provides a third of the City's overall water supply, which provides flexibility to shift sources when the City has operational, water quality, mechanical or regulatory issues. This year, all of the City's water supplies are reduced or will soon be reduced, and this ability to shift sources is not available.

The Ventura River is providing less than 1 million gallons per day, as compared to 5.5 million gallons per day in a normal year. Without rain, the Avenue Water Treatment Plant will run only part time. At present surface water flows in the Ventura River at Foster Park have ceased.

Another primary source of Ventura's water is groundwater wells. With limited redundancy, Ventura Water runs wells 24/7. Optimally, a well field has redundancy which allows wells to be periodically taken out of service to be appropriately maintained. While Ventura Water is in the process of installing redundancy wells, it has been necessary to take wells offline to complete significant repairs, resulting in shifting water production to different sources and wells. The City cannot use its historical credits in the

Oxnard Plain Groundwater Basin as the Fox Canyon Groundwater Management Agency recently passed emergency Ordinance E, eliminating the use of those credits. Due to emergency Ordinance E, Ventura's historical allocation from this source has been reduced an additional 4% above the previous 25% reduction.

With Lake Casitas at 54% capacity today, it is anticipated that the lake level will drop below 50% by this fall for the first time since 1968. This will trigger Casitas Municipal Water District (Casitas) to request additional conservation measures from all customers that rely on Lake Casitas, including the City.

For all of these reasons, City Council is requested to declare a water shortage emergency and taking more aggressive measures to generate significant water savings to stretch our local water supplies.

At this time City staff recommends moving forward with an ordinance for reduced outdoor irrigation with noncompliance penalties, to be followed with an allocation program if further reductions are warranted. It is anticipated that by limiting outdoor irrigation to no more than twice a week could reduce potable water demands approximately 20%.

### **Analysis**

On July 15, 2014, the State Water Resources Control Board adopted emergency regulations implementing mandatory statewide water conservation actions that are to remain in effect for 270 days unless extended or repealed. Section 864 of the State Water Resources Control Board regulations prohibit several activities, including the application of potable water to outdoor landscapes in a manner that causes visible runoff, the use of a hose to wash a motor vehicle except where the hose is equipped with a shut-off nozzle, the application of water to driveways and sidewalks, and the use of potable water in non-recirculating ornamental fountains. On April 3, 1989, the City Council adopted water waste prohibitions that are codified in the San Buenaventura Municipal Code in Chapter 22.170, "Water Conservation," at Section 22.170.010, "Water waste prohibited." While those prohibitions mirror many of the State Water Resources Control Board emergency regulations, they are updated and included in this ordinance to provide continuity and consistency in implementation of the measures contained in this ordinance.

Section 865 of the State Water Resources Control Board regulations require urban water suppliers to implement the stage of their water shortage contingency plans that impose mandatory restrictions on outdoor irrigation of ornamental landscaping or turf with potable water and report monthly water production information to the State Water Board, and require those urban water suppliers without adequate drought shortage contingency plans to adopt them or other measures to promote conservation within thirty days. As an urban water supplier, the City of San Buenaventura is required to comply with these State regulations or be subject to penalties. The State's intended goal

is 20% reduction in potable water demand by restricting outdoor watering to two days. Stage 3 of the City's Water Shortage Contingency Plan, which is intended to achieve a 20% reduction in potable water demand, requires that the City Council initiate mandatory water conservation regulations as an ordinance. The proposed Ordinance includes mandatory restrictions on outdoor irrigation of ornamental landscaping or turf with potable water and is intended to achieve a 20% reduction in potable water demand, which together should meet the State requirements and those of the City's UWMP.

In response to SWRCB regulations, the City Council established a citizen task force to evaluate the City's Water Shortage Contingency Plan (Attachment D), and to define the regulations associated with outdoor irrigation restrictions that are most acceptable and appropriate for Ventura.

Staff recommendations to the Task Force included preparation of a resolution for the City Council recognizing the statewide water supply shortage emergency, and preparation of an ordinance restricting outdoor irrigation of ornamental landscape or turf with potable water to between the hours of 9:00 a.m. and 6:00 p.m. on any day, to two days a week. In addition staff recommended that, irrigation would be permitted on Monday or Wednesday, for odd-numbered street addresses and Tuesday or Thursday, for even-numbered street addresses. City staff supported the odd/even watering days as it would simplify the City's ability to enforce the two day restriction. However, the Task Force did not recommend specifying watering dates, citing that customers should have the flexibility to decide on which two days of the week they desire to water.

Three penalty options for noncompliance with the ordinance were presented to the Task Force (Attachment F). Option A is the penalty structure of the City's Water Waste Ordinance contained in the City's municipal code, under Water Conservation, and is currently being implemented for water waste regulations and carries a fine of \$25 and \$50 for the second and third offense.

Option B was the staff recommendation to the Task Force and carries the penalty of a written warning for the first offense, followed by a \$100 penalty for the second offense, and a \$100 additional penalty for each subsequent offense to a maximum penalty amount of \$500. Option C, was the same as Option B but half the penalty amounts.

The Task Force recommended that the penalty structure currently imposed in the Water Waste Ordinance (Option A) be applied to new mandated restrictions of the proposed ordinance.

## **Public Engagement**

The Water Shortage Task Force held meetings on August 13<sup>th</sup>, 26<sup>th</sup>, and September 9<sup>th</sup>, 2014, to define the regulations associated with water use restrictions that are most acceptable and appropriate for Ventura. The Water Shortage Task Force addressed the restrictions on outdoor watering which have been incorporated into the proposed ordinance. All the meetings were publicly noticed and members of the public participated in the discussions.

Already many of our customers are alerting us if they see obvious water waste. In most situations, property owners are not aware that their sprinklers are broken or spraying paved surfaces since irrigation systems typically run in the early morning hours. Therefore, more follow up will be needed to make customers aware of water wasting.

Ventura Water will be engaging our customers through workshops, surveys and community outreach events to solicit feedback to the key issues to move forward with water shortage response planning. Staff has already met with community members to gain input, researched other community efforts, and attended workshops on drought action planning. Discussions with staff from all City departments were instrumental in the development of “Working Together to Save Our Water” Outreach Plan 2014 (Attachment G).

## **IMPACTS**

Additional staff and other resources will be required to implement the ordinance. The addition of three Ventura Water temporary staff members and a vehicle to handle drought related activities is approximately \$87,500 per year. The additional impact of 1-1/2 Code Enforcement staff and a vehicle is estimated to be \$122,000 per year. Combined impact to Ventura Water’s budget to implement mandatory water restrictions is approximately \$209,500. Sufficient funding exists in Fund 52-Water Fund, to cover the costs of additional staffing associated with the new restrictions.

Additional staffing is necessary to support the increased communications, educational outreach and enforcement associated with the new ordinance. Currently reports of water wasting are being received from concerned citizens via phone calls, messaging through My Ventura Access, and electronic reporting of water wasting through the City’s website. In response to these calls, customers are sent a letter informing them of the activity being noticed at their residence/business and how they can obtain assistance. A similar notification in the form of a door hanger has been provided to City staff to place at a residence/business if they observe water wasting.

Customer assistance is provided through the distribution of educational materials, leak detection and repair kits, low-flow aerators, and water surveys by Ventura Water staff. Water surveys are conducted at the residence or business of the customer and entail

review of the customer's water usage and a survey of their property. Also, additional Code Enforcement staffing is necessary for enforcement of the ordinance. Violation of the ordinance results in a written notice describing the violation, required compliance date and requires a signature that the customer has received the notification. Subsequent violations require verification by staff before surcharge penalties can be imposed on the customers water bill. Therefore, additional staffing and a vehicle are required to enforce the ordinance and verify violations.

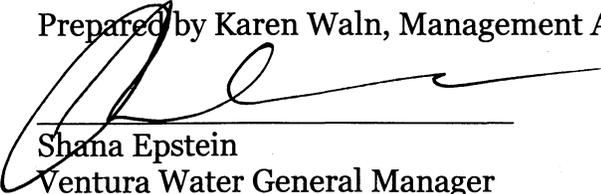
Another financial issue to be carefully analyzed is the revenue impact from lost water sales due to water conservation as rates are based, in part, on a projected amount of water sales. Staff is in the process of evaluating and analyzing the revenue impact on the Water Fund due to reduced customer water usage. Some of the revenue loss will be recouped from operational savings from purchasing, treating and delivering less water. In addition, the implementation of a drought rate structure will be analyzed by the Task Force as part of their evaluation of the City's Water Shortage Contingency Plan, which may be implemented to encourage water reductions and subsequently reduce revenue loss.

### **ALTERNATIVES**

The City Council could choose to not adopt the proposed water shortage emergency resolution and mandatory water restriction ordinance; however this could put the City in a position of being in violation of the SWRCB regulations which can carry a fine of up to \$10,000 per day.

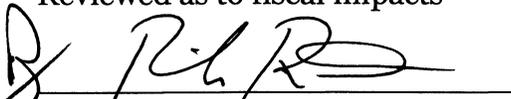
The City Council could choose to not accept the recommendations of the Task Force as incorporated into the Ordinance, and direct that the ordinance be revised to include other measures as Council deems appropriate.

Prepared by Karen Waln, Management Analyst II for



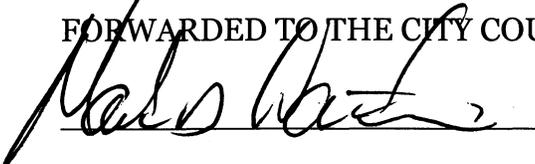
\_\_\_\_\_  
Shana Epstein  
Ventura Water General Manager

Reviewed as to fiscal impacts



\_\_\_\_\_  
Rick Raives  
Acting Finance and Technology Director

FORWARDED TO THE CITY COUNCIL



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**ATTACHMENTS**

- A. Resolution Declaring Water Shortage Emergency
- B. Ordinance Declaring Water Shortage Emergency and Adopting Water User Regulations
- C. Adopted State Resolution and Emergency Regulations and Supporting Documents
- D. 2010 Urban Water Management Plan, Water Shortage Contingency Plan
- E. Water Conservation Ordinance, Division 22 – Public Utilities, Chapter 22.170
- F. Noncompliance Penalty Options
- G. “Working Together To Save Our Water” – Outreach Plan 2014
- H. City Council PowerPoint Presentation

**ATTACHMENT A**

**RESOLUTION DECLARING  
WATER SHORTAGE EMERGENCY**



**RESOLUTION NO. 2014-\_\_\_\_\_**

**A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN BUENAVENTURA DECLARING THAT A WATER SHORTAGE EMERGENCY CONDITION PREVAILS WITHIN THE AREA SERVED BY THE CITY OF SAN BUENAVENTURA**

**WHEREAS**, the State of California is experiencing unprecedented drought conditions with 2014 projected to become the driest year on record; and

**WHEREAS**, the U.S. Drought Monitor currently classifies the entire State of California as experiencing severe to exceptional drought conditions; and

**WHEREAS**, On January 17, 2014, the Governor of the State of California proclaimed a state of emergency in the State of California due to water supply impacts caused by three consecutive years of drought conditions in the state and called on all Californians to reduce their water usage by 20 percent; and

**WHEREAS**, On April 25, 2014, the Governor of the State of California issued an Executive Order proclaiming a continued state of emergency based on continued drought conditions; and

**WHEREAS**, the drought conditions that are the basis of the Governor's emergency proclamations continue to exist throughout the State of California and within the jurisdictional limits of the City of San Buenaventura; and

**WHEREAS**, rainfall, as recorded by the Ventura County Watershed Protection District, was 44% of normal in the last water year (October 1, 2012 through September 30, 2013), rainfall in the current water year (October 1, 2013 through September 30, 2014) is projected to be 42% of normal, and projected rainfall is not expected to resolve this deficiency; and

**WHEREAS**, the deficiency in rainfall, in conjunctions with actions of others, has severely impacted the water supply available to the City from its water sources, including the Fox Canyon aquifer, Ventura River, Mound and Santa Paula Basins, and Casitas Municipal Water District; and

**WHEREAS**, water supply available to the City of San Buenaventura from its water sources, including the Fox Canyon aquifer, the Ventura River, and the Casitas Municipal Water District has decreased and is projected to decrease further in the near future. It is anticipated that the level of Lake Casitas will drop below 50% by fall 2014,

causing the Casitas Municipal Water District to impose an allocation program that will reduce water available to the City. Surface water flows in the Ventura River at Foster Park have ceased, preventing the City from obtaining water from the river. The City's ability to obtain water from the Oxnard Plain Groundwater Basin has been reduced because the Fox Canyon Groundwater Management Agency recently passed an emergency ordinance reducing the City's water allocation and eliminating the use of credits that the City had accumulated to obtain water in dry years; and

**WHEREAS**, there is a direct nexus between the availability of water supply and the immediate preservation of the public health and safety; and

**WHEREAS**, immediate action is needed to effectively increase water conservation so that remaining supplies are maintained to address water availability and the related preservation of the public health and safety of the residents of the City of San Buenaventura.

**BE IT RESOLVED** by the City Council of the City of San Buenaventura that all proceedings having been duly taken as required by law, and upon review of the information provided in the staff report, public hearing, consideration of the testimony given at the public hearing, as well as other pertinent information, the City Council, based upon the foregoing, hereby finds and declares that a water shortage emergency condition exists by reason of the fact that the ordinary demands and requirements of the water consumers served by the City of San Buenaventura cannot be met by the water supplies now available to the City without depleting the water supply or diminishing its quality to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

**PASSED AND ADOPTED** this \_\_\_\_ day of \_\_\_\_\_, 2014.

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Cynthia M. Rodriguez, MMC  
City Clerk

**APPROVED AS TO FORM**

Gregory Diaz  
City Attorney



Keith Bauerle  
Assistant City Attorney

**ATTACHMENT B**

**ORDINANCE DECLARING WATER  
SHORTAGE EMERGENCY AND  
ADOPTING WATER USER  
REGULATIONS**



ORDINANCE NO. 2014- \_\_\_\_\_

**AN EMERGENCY ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SAN BUENAVENTURA ADOPTING WATER USE REGULATIONS AND RESTRICTIONS TO ADDRESS A WATER SHORTAGE EMERGENCY AND IMPLEMENT REGULATIONS ADOPTED BY THE STATE OF CALIFORNIA**

The City Council of the City of San Buenaventura does ordain as follows:

**SECTION 1. Findings and Determinations**

- A. The State of California is experiencing unprecedented drought conditions with 2014 projected to become the driest year on record.
- B. The U.S. Drought Monitor currently classifies the entire State of California as experiencing severe to exceptional drought conditions.
- C. On January 17, 2014, the Governor of the State of California proclaimed a state of emergency in the State of California due to water supply impacts caused by three consecutive years of drought conditions in the state and called on all Californians to reduce their water usage by 20 percent.
- D. On April 25, 2014, the Governor of the State of California issued an Executive Order proclaiming a continued state of emergency based on continued drought conditions and calling on Californians and California businesses to take specific actions to avoid wasting water, including limiting lawn watering and car washing; recommends that schools, parks and golf courses limit the use of potable water for irrigation; and asks that hotels and restaurants give customers options to conserve water by only serving water upon request and other measures. The order also prevents homeowner associations from fining residents that limit their lawn watering and take other conservation measures.
- E. The Executive Order also directed the State Water Resources Control Board to adopt and implement emergency regulations pursuant to Water Code section 1058.5, as it deems necessary to prevent the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water, to promote water recycling or water conservation, and to require curtailment of diversions when water is not available under the diverter's priority of right.
- F. On July 15, 2014, the State Water Resources Control Board adopted emergency regulations implementing mandatory statewide water conservation actions that are to remain in effect for 270 days unless extended or repealed.
- G. Section 864 of the State Water Resources Control Board regulations prohibit several activities, including the application of potable water to outdoor landscapes in a manner that causes visible runoff, the use of a hose to wash a motor vehicle except where the hose is equipped with a shut-off nozzle, the

application of water to driveways and sidewalks, and the use of potable water in non-recirculating ornamental fountains.

- H. Section 865 of the State Water Resources Control Board regulations require urban water suppliers to implement the stage of their water shortage contingency plans that impose mandatory restrictions on outdoor irrigation of ornamental landscaping or turf with potable water and report monthly water production information to the State Water Board, and require those urban water suppliers without adequate drought shortage contingency plans to adopt them or other measures to promote conservation within thirty days.
- I. As an urban water supplier, the City of San Buenaventura is required to comply with these State regulations or be subject to penalties.
- J. The City Council of San Buenaventura adopted an Urban Water Management Plan ("UWMP") on June 20, 2011, and amended the Plan to include revisions requested by the State Department of Water Resources ("DWR") on May 7, 2012.
- K. On April 3, 1989, the City Council adopted water waste prohibitions that are codified in the San Buenaventura Municipal Code in Chapter 22.170, "Water Conservation," at Section 22.170.010, "Water waste prohibited." While those prohibitions mirror many of the State Water Resources Control Board emergency regulations, they are updated and included in this ordinance to provide continuity and consistency in implementation of the measures contained in this ordinance.
- L. The UWMP contains the City's Water Shortage Contingency Plan ("WSCP") that contains, among other things, voluntary water conservation measures.
- M. The DWR reviewed the UWMP and, on June 21, 2013, the DWR determined that the UWMP met the requirements of California Water Code, including those pertaining to the WSCP.
- N. Although the WSCP contains comprehensive water conservation measures, the City must make some modifications to the WSCP to comply with the newly adopted State Water Board regulations.
- O. The drought conditions that are the basis of the Governor's emergency proclamations continue to exist throughout the State of California and within the jurisdictional limits of the City of San Buenaventura.
- P. Rainfall, as recorded by the Ventura County Watershed Protection District, was 44% of normal in the last water year (October 1, 2012 through September 30, 2013), rainfall in the current water year (October 1, 2013 through September 30, 2014) is projected to be 42% of normal, and projected rainfall is not expected to resolve this deficiency.
- Q. The deficiency in rainfall, in conjunctions with actions of others, has severely impacted the water supply available to the City from its water sources, including the Fox Canyon aquifer, Ventura River, Mound and Santa Paula Basins, and Casitas Municipal Water District.

- R. Water supply available to the City of San Buenaventura from its water sources, including the Fox Canyon aquifer, the Ventura River, and the Casitas Municipal Water District has decreased and is projected to decrease further in the near future. It is anticipated that the level of Lake Casitas will drop below 50% by fall 2014, causing the Casitas Municipal Water District to impose an allocation program that will reduce water available to the City. Surface water flows in the Ventura River at Foster Park have ceased, preventing the City from obtaining water from the river. The City's ability to obtain water from the Oxnard Plain Groundwater Basin has been reduced because the Fox Canyon Groundwater Management Agency recently passed an emergency ordinance reducing the City's water allocation and eliminating the use of credits that the City had accumulated to obtain water in dry years.
- S. There is a direct nexus between the availability of water supply and the immediate preservation of the public health and safety.
- T. Immediate action is needed to effectively increase water conservation so that remaining supplies are maintained to address water availability and the related preservation of the public health and safety of the residents of the City of San Buenaventura.
- U. Immediate action is also needed to ensure compliance with the regulations adopted by the State Water Board.
- V. Based upon the foregoing, the City Council has found and declared by Resolution that a water shortage emergency condition exists by reason of the fact that the ordinary demands and requirements of the water consumers served by the City of San Buenaventura cannot be met by the water supplies now available to the City without depleting the water supply or diminishing its quality to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.
- W. Based upon the foregoing, the City Council finds that this Ordinance should be adopted on an emergency basis pursuant to the authority in Charter Section 706.

**SECTION 2. Purpose and Authority**

The purpose of this Ordinance is to conserve the water supply of the City for the greatest public benefit with particular regard to public health, fire protection and domestic use; to conserve water by reducing and restricting nonessential water use that, if continued, would constitute waste; and to the extent necessary by reason of drought and the existing water shortage emergency to reduce water use fairly and equitably. This ordinance also implements State requirements to address drought conditions and measures to address the water shortage emergency that exists within the area presently served by the City of San Buenaventura. This ordinance also implements Stage III of the City's Water Shortage Contingency Plan as modified below to implement State requirements to address drought conditions. This Ordinance is adopted pursuant to the City's authority under Sections 350 et seq. of the California Water Code and City of San Buenaventura Charter Section 706.

### **SECTION 3. Effect of Ordinance**

This Ordinance shall take effect immediately and shall remain in effect until the City Council declares that the water shortage emergency has ended. The water conservation measures and water use restrictions described below are in addition to the existing provisions of Section 22.170.010 of the City of San Buenaventura Municipal Code and the Water Shortage Contingency Plan contained in the City's Urban Water Management Plan. In the event of any conflict between this ordinance and Section 22.170.010 or the Water Shortage Contingency Plan, the provisions of this ordinance shall govern while this ordinance remains in effect.

### **SECTION 4. Definitions**

The following words and phrases whenever used in this ordinance have the meaning defined in this section:

- A. **"Customer"** means any person, partnership, business, corporation or governmental agency that receives water from the City of San Buenaventura (hereinafter "City") water system.
- B. **"Applicant"** means any person, partnership, business, corporation or governmental agency that requests water service from the City
- C. **"Landscape irrigation system"** means an irrigation system with pipes, hoses, spray heads, or sprinkling devices that are operated by hand or through an automated system.
- D. **"Potable water"** means water which is suitable for drinking.
- E. **"Recycled water"** means the reclamation and reuse of non-potable water for beneficial use as defined in Title 22 of the California Code of Regulations.
- F. **"Billing unit"** means the unit of water (measured in hundred cubic feet (HCF) used to apply water rates for purposes of calculating water charges for a person's water usage. A billing unit equals one hundred (100) cubic feet or seven hundred forty-eight (748) gallons of water.

### **SECTION 5. Application**

- A. The provisions of this ordinance apply to any person in the use of any potable water provided by the City water system.
- B. The provisions of this ordinance do not apply to uses of water necessary to protect public health and safety or for essential government services, such as police, fire and other similar emergency services.
- C. The provisions of this ordinance do not apply to uses of water necessary to maintain safe conditions of sports fields.
- D. The provisions of this ordinance chapter do not apply to the use of recycled water.
- E. The provisions of this ordinance do not apply to the use of water by commercial nurseries and commercial growers to sustain plants, trees, shrubs, crops or other vegetation intended for commercial sale.

- F. The provisions of this ordinance do not apply to low-flow drip irrigation systems.
- G. This ordinance is intended solely to further the conservation of water. It is not intended to implement any provision of federal, State, or local statutes, ordinances, or regulations relating to protection of water quality or control of drainage or runoff.

#### **SECTION 6. Water Use Restrictions**

The following water conservation requirements are effective at all times and are permanent. Violations of this section will be considered waste and an unreasonable use of water.

- A. **Limits on Watering Hours:** Outdoor irrigation of ornamental landscape or turf with potable water through an irrigation system is prohibited between the hours of 9:00 a.m. and 6:00 p.m. except for the express purpose of adjusting or repairing an irrigation system.
- B. **Limits on Watering Days:** Outdoor irrigation of ornamental landscape or turf with potable water through an irrigation system is restricted to two days a week, a week being defined as a Sunday through a Saturday.
- C. **No Excessive Water Flow or Runoff:** Watering or irrigating of any lawn, landscape or other vegetated area in a manner that causes or allows excessive water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter or ditch is prohibited.
- D. **No Washing Down Hard or Paved Surfaces:** Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, a low-volume, high-pressure cleaning machine equipped to recycle any water used, or a low-volume high-pressure water broom.
- E. **Obligation to Fix Leaks, Breaks or Malfunctions:** Excessive use, loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected and in no event more than 48 hours of receiving notice from the City of San Buenaventura, is prohibited.
- F. **Re-circulating Water Required for Water Fountains and Decorative Water Features:** Operating a water fountain or other decorative water feature that does not use re-circulated water is prohibited.
- G. **Limits on Washing Vehicles:** Using water to wash or clean a vehicle, including but not limited to any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not is prohibited, except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self-

closing water shut-off nozzle or device. This subsection does not apply to any commercial car washing facility.

- H. **Drinking Water Served Upon Request Only:** Eating or drinking establishments, including but not limited to a restaurant, hotel, cafe, cafeteria, bar, or other public place where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested.

#### **SECTION 7. Hardship Waiver**

- A. **Undue and Disproportionate Hardship:** If, due to unique circumstances, a specific requirement of this Ordinance would result in undue hardship to a person using water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water users, then the person may apply for a waiver to the requirements as provided in this section.
- B. **Written Finding:** The waiver may be granted or conditionally granted only upon a written finding of the existence of facts demonstrating an undue hardship to a person using water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water use due to specific and unique circumstances of the user or the user's property.
- C. **Application:** Application for a waiver must be written and addressed to the General Manager of Ventura Water.
- D. **Supporting Documentation:** The application must be accompanied by photographs, maps, drawings, and other information, including a written statement of the applicant.
- E. **Required Findings for Waiver:** An application for a waiver will be denied unless the Ventura Water General Manager finds, based on the information provided in the application, supporting documents, or such additional information as may be requested, and on water use information for the property as shown by the records of the City of San Buenaventura or its Agent, all of the following:
  - 1. That the waiver does not constitute a grant of special privilege inconsistent with the limitations upon other residents and businesses;
  - 2. That because of special circumstances applicable to the property or its use, the strict application of this chapter would have a disproportionate impact on the property or use that exceeds the impacts to residents and businesses generally;
  - 3. That the authorizing of such waiver will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the City to effectuate the purpose of this chapter and will not be detrimental to the public interest; and
  - 4. That the condition or situation of the subject property or the intended use of the property for which the waiver is sought is not common, recurrent or general in nature.

- F. **Approval Authority:** The City's Ventura Water General Manager shall act upon any completed application and may approve, conditionally approve, or deny the waiver. The applicant requesting the waiver will be promptly notified in writing of any action taken. Unless specified otherwise at the time a waiver is approved, the waiver will apply to the subject property during the period this Ordinance is in effect. The decision of the Ventura Water General Manager will be final.

### **SECTION 8. Violations**

Penalty fines and water service actions may be levied and applied for each violation of a provision of the Ordinance as follows:

- A. **First Violation:** For the first violation of any of the provisions of this ordinance a written notice is to be given.
- B. **Second Violation:** For the second violation of any of the provisions of this ordinance a surcharge penalty is hereby imposed in an amount equal to 50 percent of the most recent bimonthly water bill (exclusive of the sewer portion of the bill), or \$25.00, whichever is less, payable as part of the water bill, by the customer at the premises at which the violation occurred.
- C. **Third Violation:** For the third violation of any of the provisions of this ordinance a surcharge penalty is hereby imposed in an amount equal to 25 percent of the most recent bimonthly water bill (exclusive of the sewer portion of the bill), or \$50.00, whichever is greater. This penalty is payable as part of the water bill, by the customer at the premises at which the violation occurred.
- D. **Fourth Violation:** For a fourth violation of any of the provisions of this ordinance within 12 calendar months, the city will install a flow restricting device of one GPM capacity for services up to 1½ inch size, and comparatively sized restrictors for larger services, on the service of the customer at the premises at which the violation occurred for a period of not less than 48 hours. The charge for installing such a flow restricting device will be based upon the size of the meter and the actual cost of installation. The charge for removal of the flow restricting device and restoration of normal service shall be based on the actual cost involved. Said charges shall be payable by said customer as part of the water bill. Restoration of normal service will be performed during the hours of 8:00 a.m. to 4:00 p.m. on regular working days. In addition, a surcharge penalty of 50 percent of the most recent water bill shall be imposed for restoration of normal service, payable by said customer as part of the water bill.
- E. **Fifth and Subsequent Violations:** For any subsequent violation after the fourth violation of any of the provisions of this ordinance within 12 calendar months, the City may discontinue water service to the customer at the premises at which the violation occurred.

### **SECTION 9. Payment of Penalty Fines**

The water customer is responsible for the full payment of penalty fines. Each penalty fine will be applied in the customer's regular water billing. Payment of the penalty fine will be the final responsibility of the individual named on the water account.

Non-payment of fines will be subject to the same remedies as non-payment of basic water rates, in accordance with Section 22.160.030 of the San Buenaventura Municipal Code. The above fines shall be included in the next monthly water bill and must be paid in accordance with normal bill paying processes or the water service will be subject to being turned off. Failure to make corrections or pay a charge within the allotted time may also result in restriction of service.

**SECTION 10. Appeals**

Any customer against whom an administrative fine or water service action is levied pursuant to this Ordinance shall have the right to appeal as follows:

- A. The appeal must be in writing, legible, and received by the Water Resources Account Supervisor within fifteen (15) calendar days of the issuance of the notice of violation to the customer. The written request for appeal consideration shall include:
  - 1. A description of the issue,
  - 2. Evidence supporting the appeal, and
  - 3. A suggestion for resolution of the dispute, if any.
- B. The Water Resources Account Supervisor will review the material submitted and make an independent determination of the issue.
- C. The Water Resources Account Supervisor’s determination may be appealed in writing within fifteen (15) calendar days of the mailing of the notice of determination. The appeal of the Water Resources Account Supervisor’s determination shall be heard and considered by the General Manager. The General Manager may, in his or her discretion, affirm, reverse, or modify the determination.

**SECTION 11. Severability**

If any section, subsection, sentence, clause or phrase in this chapter is for any reason held invalid, the validity of the remainder of the chapter will not be affected. The City of San Buenaventura hereby declares it would have passed this chapter and each section, subsection, sentence, clause or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses, or phrases or is declared invalid.

**SECTION 12. CEQA Findings**

The City Council finds that this Ordinance is exempt under Section 15307 of Title 14 of the California Code of Regulations ("CEQA Guidelines"), which exempts "actions taken by regulatory agencies . . . to assure the maintenance, restoration, or enhancement of a natural resource where the regulatory process involves procedures for protection of the environment" because this action is taken to maintain water resources. The City Council finds that the implementation of this Ordinance is also exempt under CEQA Guidelines Section 15061(b)(3) because the adoption of these regulations implements a regulatory process that will not foreseeably result in construction or other physical activities, either directly or indirectly. It can therefore be

foreseen that the enactment of this ordinance does not have the potential to result in significant effects on the environment.

**PASSED AND ADOPTED** this \_\_\_\_ day of \_\_\_\_\_, 2014.

\_\_\_\_\_  
Cheryl Heitmann, Mayor

ATTEST:

\_\_\_\_\_  
Cynthia M. Rodriguez, MMC  
City Clerk

APPROVED AS TO FORM  
Gregory Diaz  
City Attorney

  
\_\_\_\_\_  
By: Keith Bauerle  
Assistant City Attorney

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**ATTACHMENT C**

**ADOPTED STATE RESOLUTIONS  
AND EMERGENCY REGULATIONS  
AND SUPPORTING DOCUMENTS**



**STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 2014-0038**

**TO ADOPT AN EMERGENCY REGULATION  
FOR STATEWIDE URBAN WATER CONSERVATION**

WHEREAS:

1. On April 25, 2014, Governor Edmund G. Brown Jr. issued an executive order to strengthen the state's ability to manage water and habitat effectively in drought conditions and called on all Californians to redouble their efforts to conserve water. The executive order finds that the continuous severe drought conditions present urgent challenges across the state including water shortages in communities and for agricultural production, increased wildfires, degraded habitat for fish and wildlife, threat of saltwater contamination, and additional water scarcity if drought conditions continue into 2015. The National Integrated Drought Information System reported that nearly 80% of the state was reported to be under "extreme" drought conditions at the end of June;
2. The executive order refers to the Governor's Proclamation No. 1-17-2014, issued on January 17, 2014, declaring a State of Emergency to exist in California due to severe drought conditions. The January Proclamation notes that the state is experiencing record dry conditions, with 2014 projected to become the driest year on record. Since January, state water officials indicate that reservoirs, rainfall totals and the snowpack remain critically low. This follows two other dry or below average years, leaving reservoir storage at alarmingly low levels. The January Proclamation highlights the State's dry conditions, lack of precipitation and the resulting effects on drinking water supplies, the cultivation of crops, and the survival of animals and plants that rely on California's rivers and streams. The January Proclamation also calls on all Californians to reduce their water usage by 20 percent;
3. There is no guarantee that winter precipitation will alleviate the drought conditions that the executive orders address, which will lead to even more severe impacts across the state if the drought wears on;
4. Water Code section 1058.5 grants the State Water Board the authority to adopt emergency regulations in certain drought years in order to: "prevent the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion, of water, to promote water recycling or water conservation, to require curtailment of diversions when water is not available under the diverter's priority of right, or in furtherance of any of the foregoing, to require reporting of diversion or use or the preparation of monitoring reports";
5. Over 400,000 acres of farmland are expected to be fallowed, thousands of people may be out of work, communities risk running out of drinking water, and fish and wildlife will suffer.

6. Many Californians have taken bold steps over the years and in this year to reduce water use; nevertheless, the dire nature of the current drought requires additional conservation actions from residents and businesses. Some severely affected communities have implemented water rationing, limiting water use in some cases to only 50 gallons per person per day, foregoing showers, laundry, toilet flushing, and all outdoor watering.
7. Water conservation is the easiest, most efficient and most cost effective way to quickly reduce water demand and extend supplies into the next year, providing flexibility for all California communities. Water saved this summer is water available next year, giving water suppliers the flexibility to manage their systems efficiently. The more water that is conserved now, the less likely it is that a community will experience such dire circumstances that water rationing is required ;
8. Most Californians use more water outdoors than indoors. In many areas, 50 percent or more of daily water use is for lawns and outdoor landscaping. Outdoor water use is generally discretionary, and many irrigated landscapes would not suffer greatly from receiving a decreased amount of water;
9. Public information and awareness is critical to achieving conservation goals and the Save Our Water campaign, run jointly by the Department of Water Resources (DWR) and the Association of California Water Agencies, is an excellent resource for conservation information and messaging that is integral to effective drought response (<http://saveourwater.com>).
10. Enforcement against water waste is a key tool in conservation programs. When conservation becomes a social norm in a community, the need for enforcement is reduced or eliminated;
11. The emergency regulations set a minimum standard requiring only modest lifestyle changes across the state. Many communities are already doing more and have been for years. They should be commended, but can and should do more. Others are not yet doing so and should at least do this, but should do much more given the severity of the drought;
12. On July 8, 2014, the State Water Board issued public notice that the State Water Board would consider the adoption of the regulation at the Board's regularly-scheduled July 15, 2014 public meeting, in accordance with applicable State laws and regulations. The State Water Board also distributed for public review and comment a Finding of Emergency that complies with State laws and regulations;
13. On April 25, 2014, the Governor suspended the California Environmental Quality Act's application to the State Water Board's adoption of emergency regulations pursuant to Water Code section 1058.5 to prevent the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water, to promote water recycling or water conservation;
14. As discussed above, the State Water Board is adopting the emergency regulation because of emergency drought conditions, the need for prompt action, and current limitations in the existing enforcement process;

15. Disadvantaged communities may require assistance in increasing water conservation and state agencies should look for opportunities to provide assistance in promoting water conservation;
16. Nothing in the regulations or in the enforcement provisions of the regulations, preclude a local agency from exercising its authority to adopt more stringent conservation measures. Moreover, the Water Code does not impose a mandatory penalty for violations of the regulations adopted by this resolution and local agencies retain their enforcement discretion in enforcing the regulations, to the extent authorized, and may develop their own progressive enforcement practices to encourage conservation.

THEREFORE BE IT RESOLVED THAT:

1. The State Water Board adopts California Code of Regulations, title 23, sections 863, 864, and 865, as appended to this resolution as an emergency regulation;
2. The State Water Board staff will submit the regulation to the Office of Administrative Law (OAL) for final approval;
3. If, during the approval process, State Water Board staff, the State Water Board, or OAL determines that minor corrections to the language of the regulation or supporting documentation are needed for clarity or consistency, the State Water Board Executive Director or designee may make such changes;
4. These regulations shall remain in effect for 270 days after filing with the Secretary of State unless the State Water Board determines that it is no longer necessary due to changed conditions, or unless the State Water Board renews the regulations due to continued drought conditions as described in Water Code section 1058.5;
5. The State Water Board directs staff to provide the Board with monthly updates on the implementation of the emergency regulations and their effect;
6. Directs State Water Board staff to condition funding upon compliance with the emergency regulations, to the extent feasible;
7. Directs State Water Board staff to work with the Department of Water Resources and the Save Our Water campaign to disseminate information regarding the emergency regulations; and
8. Directs State Water Board staff in developing an electronic reporting portal to include data fields so that local agencies may provide monthly reporting data on (i) conservation-related implementation measures or enforcement actions taken by the local agency and (ii) substitution during the drought of potable water with recycled water to extend water supplies.

THEREFORE BE IT FURTHER RESOLVED THAT:

9. The State Water Board commends water suppliers that have increased conservation messaging and adopted innovative strategies to enhance customer awareness of water use, such as applications that let customers compare their water use to water use by others; reduce system losses, such as fixing system leaks which can deplete supplies by 10 percent or more; and establish incentives to reduce demand, such as tiered or drought rate structures. The State Water Board also commends all Californians that have already been working to maximize their conservation efforts, both at home and at work;
10. The State Water Board calls upon water suppliers to take the following actions:

*Educate customers and employees*

- Retail water suppliers should provide notice of the regulations in English and Spanish in one or more of the following ways: newspaper advertisements, bill inserts, website homepage, social media, notices in public libraries;
- Wholesale suppliers should include reference to the regulations in their customer communications;
- All water suppliers should train personnel on the regulations;
- All water suppliers should provide signage where recycled or reclaimed water is being used for activities that the emergency regulations prohibit with the use of potable water, such as operation of fountains and other water features;
- All water suppliers should redouble their efforts to disseminate information regarding opportunities and incentives to upgrade indoor fixtures and appliances;
- All water suppliers should use education and the tools available through the Save Our Water website (<http://saveourwater.com>); and
- All water suppliers should educate and prepare their boards and councils on the drought response actions contained in the emergency regulations and in this resolution, and to make sure that drought response items are placed on agendas as early as possible;

*Increasing local supplies*

- All water suppliers should accelerate the completion of projects that will conserve potable water by making use of non-potable supplies, such as recycled water, "greywater," and stormwater collection projects;
- All water suppliers should improve their leak reporting and response programs and request that police and fire departments and other local government personnel report leaks and water waste that they encounter during their routine duties/patrols;
- Smaller water suppliers – those with fewer than 3,000 service connections – should take proactive steps to secure their communities' water supplies and educate their customers about water conservation and the status of their supply reserves;
- All water suppliers should conduct water loss audits and make leak detection and repair a top priority for the duration of the drought; and
- All urban water suppliers should evaluate their rate structures and begin to implement needed changes as part of planning for another dry year. Information and assistance on setting and implementing drought rates is available from the Alliance for Water Efficiency. (<http://www.allianceforwaterefficiency.org/>).

11. The State Water Board calls on all Californians to take the following additional actions:
  - Further reduce water demand, whether by using less water in daily routines indoors and out, retrofitting appliances and installing greywater and rainwater catchment systems; and
  - Check residential and business water bills to see if there are high charges that may indicate a leak and to fix the leak, if they are able, or contact their local water utility if they need assistance.
  
12. The State Water Board encourages its staff, the Department of Water Resources, the Public Utilities Commission, urban water suppliers, and other local agencies to look for opportunities to encourage and promote new technologies that reduce water usage, including through timely access to water usage information and behavioral response.
  
13. The State Water Board encourages all state and local agencies to look for additional opportunities to minimize potable water use in outdoor spaces.
  
14. The State Water Board encourages investor-owned utilities to expeditiously submit applications for implementation of the regulations to the California Public Utilities Commission.

**CERTIFICATION**

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on July 15, 2014.

AYE:           Chair Felicia Marcus  
                   Vice Chair Frances Spivy-Weber  
                   Board Member Steven Moore  
                   Board Member Dorene D'Adamo  
  
 NAY:           None  
  
 ABSENT:       Board Member Tam M. Doduc  
  
 ABSTAIN:      None


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 Jeanine Townsend  
 Clerk to the Board

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# PROPOSED TEXT OF EMERGENCY REGULATIONS

## Article 22.5. Drought Emergency Water Conservation

### Sec. 863 Findings of Drought Emergency

(a) The State Water Resources Control Board finds as follows:

(1) On January 17, 2014, the Governor issued a proclamation of a state of emergency under the California Emergency Services Act based on drought conditions;

(2) On April 25, 2014, the Governor issued a proclamation of a continued state of emergency under the California Emergency Services Act based on continued drought conditions;

(3) The drought conditions that formed the basis of the Governor's emergency proclamations continue to exist;

(4) The present year is critically dry and has been immediately preceded by two or more consecutive below normal, dry, or critically dry years; and

(5) The drought conditions will likely continue for the foreseeable future and additional action by both the State Water Resources Control Board and local water suppliers will likely be necessary to further promote conservation.

Authority: Wat. Code, § 1058.5.

References: Wat. Code, §§ 102, 104, 105.

### Sec. 864 Prohibited Activities in Promotion of Water Conservation

(a) To promote water conservation, each of the following actions is prohibited, except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a state or federal agency:

(1) The application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures;

(2) The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;

(3) The application of potable water to driveways and sidewalks; and

(4) The use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculating system.

(b) The taking of any action prohibited in subdivision (a) of this section, in addition to any other applicable civil or criminal penalties, is an infraction, punishable by a fine of up to five hundred dollars (\$500) for each day in which the violation occurs.

Authority: Wat. Code, § 1058.5.

References: Wat. Code, §§ 102, 104, 105.

## PROPOSED TEXT OF EMERGENCY REGULATIONS

### Sec. 865 Mandatory Actions by Water Suppliers

(a) The term "urban water supplier," when used in this section, refers to a supplier that meets the definition set forth in Water Code section 10617, except it does not refer to suppliers when they are functioning solely in a wholesale capacity, but does apply to suppliers when they are functioning in a retail capacity.

(b)(1) To promote water conservation, each urban water supplier shall implement all requirements and actions of the stage of its water shortage contingency plan that imposes mandatory restrictions on outdoor irrigation of ornamental landscapes or turf with potable water.

(2) As an alternative to subdivision (b)(1), an urban water supplier may submit a request to the Executive Director for approval of an alternate plan that includes allocation-based rate structures that satisfies the requirements of chapter 3.4 (commencing with section 370) of division 1 of the Water Code, and the Executive Director may approve such an alternate plan upon determining that the rate structure, in conjunction with other measures, achieves a level of conservation that would be superior to that achieved by implementing limitations on outdoor irrigation of ornamental landscapes or turf with potable water by the persons it serves to no more than two days per week.

(c) To promote water conservation, each urban water supplier that does not have a water shortage contingency plan or has been notified by the Department of Water Resources that its water shortage contingency plan does not meet the requirements of Water Code section 10632 shall, within thirty (30) days, limit outdoor irrigation of ornamental landscapes or turf with potable water by the persons it serves to no more than two days per week or shall implement another mandatory conservation measure or measures intended to achieve a comparable reduction in water consumption by the persons it serves relative to the amount consumed in 2013.

(d) In furtherance of the promotion of water conservation each urban water supplier shall prepare and submit to the State Water Resources Control Board by the 15<sup>th</sup> of each month a monitoring report on forms provided by the Board. The monitoring report shall include the amount of potable water the urban water supplier produced, including water provided by a wholesaler, in the preceding calendar month and shall compare that amount to the amount produced in the same calendar month in 2013. Beginning October 15, 2014, the monitoring report shall also estimate the gallons of water per person per day used by the residential customers it serves. In its initial monitoring report, each urban water supplier shall state the number of persons it serves.

(e) To promote water conservation, each distributor of a public water supply, as defined in Water Code section 350, that is not an urban water supplier shall, within thirty (30) days, take one or more of the following actions:

(1) Limit outdoor irrigation of ornamental landscapes or turf with potable water by the persons it serves to no more than two days per week; or

(2) Implement another mandatory conservation measure or measures intended to achieve a comparable reduction in water consumption by the persons it serves relative to the amount consumed in 2013.

Authority: Wat. Code, § 1058.5.

References: Wat. Code, §§ 102, 104, 105; 350; 10617; 10632.



# Fact Sheet

## Mandatory Water Conservation Regulation Go Into Effect

An emergency regulation to increase conservation practices for all Californians became effective July 29, 2014. The new conservation regulation targets outdoor urban water use. In some areas of the State, 50 percent or more of daily water use is for lawns and outdoor landscaping. This regulation establishes the minimum level of activity that residents, businesses and water suppliers must meet as the drought deepens and will be in effect for 270 days unless extended or repealed.

### Prohibitions for ALL urban water users in California:

- The application of potable water to any driveway or sidewalk.
- Using potable water to water outdoor landscapes in a manner that causes runoff to adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots or structures.
- Using a hose that dispenses potable water to wash a motor vehicle, unless the hose is fitted with a shut-off nozzle.
- Using potable water in a fountain or decorative water feature, unless the water is recirculated. Recycled water is not mandated, but encouraged for fountain use.

### Requirements for Urban Water Suppliers (serving >3000 connections):

- Implement water shortage contingency plans to a level where restrictions on outdoor irrigation are mandatory.
- Urban water suppliers without a plan, or without an adequate plan, must either mandate that outdoor irrigation be reduced to no more than twice a week or implement other mandatory use restrictions that provide a comparable level of savings.
- Report monthly water production beginning August 15. Include an estimate of the gallons per capita per day used by residential customers beginning with the October 15 report.

### Requirements for Other Water Suppliers (serving <3000 connections):

- Mandate that outdoor irrigation be reduced to no more than twice a week or implement other mandatory use restrictions that provide a comparable level of savings.



CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY  
STATE WATER RESOURCES CONTROL BOARD  
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### **Assessing Compliance**

- Individual Prohibitions – evaluating alleged violations and taking enforcement action is primarily a local discretionary action.
- Water Suppliers – compliance will be evaluated based on multiple factors including implementation of the required actions, the content of the monthly reports (Urban Water Suppliers), and other relevant information.

### **Tips for Implementing the New Regulations**

- Notify and educate staff, ratepayers and the community at large about the prohibitions.
- Inform ratepayers of the requirements of the stage of the Water Shortage Contingency Plan required by the regulations.
- Access the water conservation resources clearinghouse, a partnership of the State of California and the Association of California Water Agencies at either <http://www.saveourh2o.org/> or <http://saveourwater.com/>

### **Contact Information**

- Report State Agency water waste at <http://www.saveourh2o.org/report-water-waste>
- Contact the State Water Board's drought hotline for questions on drought-related activities including general questions on the emergency regulations: (916) 341-5342.

More information on the emergency regulation can be found at the [Conservation Regulation Portal](#).

*(This fact sheet was last updated July 29, 2014)*

## Water Conservation Emergency Regulations

### Frequently Asked Questions

#### INDIVIDUAL PROHIBITIONS

**P.1. Who do the prohibitions apply to?**

A. The prohibitions apply to all Californians. The prohibitions against runoff in outdoor landscapes, washing motor vehicles with a running hose (no shut off), hosing down sidewalks and driveways, and running fountains that do not recirculate water are a minimum level of effort that every resident of the State is responsible for.

**P.2. Is there an exemption to the prohibitions to protect public health and safety?**

A. Yes, the regulations state that the prohibitions apply “except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a State or federal agency.” The regulations do not include a specific definition of what constitutes an immediate health and safety need, but generally speaking, a health and safety exception should be applied in good faith where a reasonable person would conclude that the application of water is necessary to address public health and safety. Pressure washing a sidewalk or driveway for aesthetic purposes, for example, would not be a health and safety need.

**P.3. Are locals prevented from enacting or enforcing water prohibitions that are more stringent than the regulations?**

A. No, the regulations represent a minimum level of effort and everyone is encouraged to do more.

**P.4. What is meant by “sidewalk” in the prohibition section of the regulations?**

A. A sidewalk is commonly considered to be a walkway designated for pedestrian travel.

**P.5. Are public water parks considered a water feature under the individual prohibitions?**

A. No, water parks themselves generally serve a recreational (play) purpose and are not decorative under the new regulation. Given the severity of the current drought, communities should strongly consider turning off water for spray parks and other functional recreational water features that do not recirculate water, however, their use is not strictly prohibited under the regulation.

**P.6. Who do I report violations of the prohibitions to?**

A. Violations of the individual prohibitions can be reported to the local water supplier or other local agency. The State Water Board is currently developing a locator tool that will assist the public in identifying the water supplier serving the area of alleged violation. That tool will not be available for several weeks.

Water Conservation Emergency Regulations  
**Frequently Asked Questions**

**WATER SUPPLIER ACTIONS**

**S.1. What would be a sufficient “comparable” level of conservation under the regulations?**

A. The regulations anticipate that the outdoor irrigation restrictions can result in up to a 20% reduction in outdoor water use. The expectation is that the imposition of conservation measures, other than the 2-day per week default provision should achieve a similar or better level of savings.

**S.2. Do the regulations apply to wholesale water suppliers?**

A. No, the regulations do not apply to wholesale water suppliers. If a supplier provides both retail and wholesale services, the regulations would apply to the retail component of the service.

**S.3. Do the regulations override local conservation programs?**

A. The regulations do not override local conservation programs, but they may cause a water supplier to increase the level of effort to achieve water savings. The regulations specifically require water suppliers to implement their water shortage contingency plans to a level that imposes mandatory outdoor irrigation restrictions. Many communities are currently calling for voluntary restrictions. The regulations would increase this level of effort.

**S.4. If a water supplier has implemented a drought contingency plan that restricts outdoor irrigation to 3 days per week, are they in compliance with the regulations?**

A. Yes, the regulations require water suppliers to implement the stage of their water shortage contingency plans where outdoor irrigation restrictions are mandatory. The regulations recognize that everyone’s plans are different, reflecting unique local conditions and do not specify what the specific restrictions must be as long as they are mandatory.

**S.5 Do the regulations apply to Investor Owned Utilities that are regulated by California Public Utilities Commission?**

A. Yes, the regulations apply to Investor Owned Utilities in the same manner that they apply to public water agencies. Implementing certain aspects of the regulations will require approval from the California Public Utilities Commission (CPUC), but that approval will come in the form of letters from CPUC staff, which will be issued on a ministerial basis. As indicated above, the prohibitions apply to all Californians regardless of their source of water (recycled water excepted).

**S.6 Are water suppliers serving fewer than 3000 connections required to comply with the reporting requirements for water production data?**

A. No, the reporting requirements only apply to urban water suppliers that serve greater than 3000 connections.

## Water Conservation Emergency Regulations

### Frequently Asked Questions

#### ENFORCEMENT

**E.1. Can both law enforcement and water agencies issue citations for an offence under the regulations?**

A. The infraction citation may be issued by a peace officer or any employee of a local agency that is charged with enforcing statutes, regulations, and ordinances pertaining to water use, if the local agency has adopted an ordinance empowering them to do so. This means that the precise individuals within an agency authorized to issue the infractions would vary depending upon what, if any, relevant ordinance the agency has adopted.

**E.2. Who will be held responsible for non-compliance with the prohibitions in rental units?**

A. Just as with a traffic ticket, it is the person that is actually engaging in the prohibited activity.

**E.3. Are local agencies required to enforce the new prohibitions using the infraction authority authorized through the regulation?**

A. No, the infraction authority provides an additional tool available to local entities to use or not.

#### GENERAL

**G.1. How do the newly adopted regulations affect tribal lands?**

A. These regulations follow existing precedent on tribal/state relations. They do not apply to federally or tribally-owned water suppliers or users on tribal trust lands of federally recognized tribes. To the extent some tribal lands may be serviced by non-tribal public water suppliers, the suppliers must comply with the regulations.

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**ATTACHMENT D**

**2010 URBAN WATER  
MANAGEMENT PLAN, WATER  
SHORTAGE CONTINGENCY PLAN**



## **Section 8: Water Shortage Contingency Planning**

### **8.1 Overview**

This chapter documents the City's Water Shortage Contingency Plan and Emergency Response Plan (ERP) per requirements of Section 10632 of the Act.

The purpose of the Water Shortage Contingency Plan is to provide a plan of action to be followed during the various stages of a water shortage. The plan includes the following elements: action stages, estimate of minimum supply available, actions to be implemented during a catastrophic interruption of water supplies, prohibitions, penalties and consumption reduction methods, revenue impacts of reduced sales, and water use monitoring procedures.

### **8.2 Stages of Action to Respond to Water Shortages**

The City has developed a five-stage water shortage plan to reduce demands up to a minimum of 50 percent of normal supply during a severe or extended water shortage. The plan includes voluntary and mandatory stages which are intended to be fair to all water customers with the minimum impact on business, employment and quality of life. Water shortage triggering levels are established to ensure that the policy statements are implemented. Two types of triggers are discussed below: 1) Triggers that would elicit a short term water supply response (i.e., voluntary or mandatory water conservation program, emergency water connections, etc.) and 2) Triggers that would trigger a long-term water supply response (i.e., seawater desalination facility, imported water, etc.). The water shortage stages and the reduction goals for each stage are outlined in Table 8-1.

**TABLE 8-1  
RATIONING AND REDUCTION GOALS**

<b>Deficiency</b>	<b>Stage</b>	<b>Demand Reduction Goal</b>	<b>Type of Program</b>
Up to 10%	Stage 1	10% Reduction	Voluntary
10-15%	Stage 2	15% Reduction	Mandatory
15-20%	Stage 3	20% Reduction	Mandatory
20-30%	Stage 4	30% Reduction	Mandatory
30-50%+	Stage 5	50%+ Reduction	Mandatory

If the predicted shortage is in total water supply sources for the current year or subsequent years, the appropriate stage allocation program should be in effect year round. For shortages limited to peak demand days, the City Council has the option of limiting the allocation program to the six months from May to October.

The City currently has a monitoring program to provide roughly five year's advance warning of the need for a supplemental water supply, whether the need be for drought proofing or for long term base-loaded supply. This will give the City sufficient time to fully implement a supplemental water supply project, from the feasibility study phase to completion of construction and start up of the facility. This program includes a biennial report, provided to the City Council, of our water supply conditions. The water supply conditions which will be reviewed include the

production from the Ventura River, the storage level in Lake Casitas, the City's Fox Canyon GMA credits, the status of the City's other groundwater basins, and water demand within the City.

In addition to the short term water supply triggers described above, the City's long term water supply will be evaluated using the following triggers:

- Ventura River - the previous year's water production from the Ventura River was less than 2,500 AF.
- Lake Casitas - the storage in the lake reaches the 127,000 AF Stage 2 level.
- Fox Canyon GMA Credits - the City's balance of Fox Canyon GMA groundwater credits falls below 10,000 AF.
- Other Groundwater Basins - conditions in the Mound and Santa Paula groundwater basins begin to deteriorate significantly.
- Water Demand - the water demand within the City reaches 27,500 AFY.

The triggers for a drought-proofing supplemental water supply, based on the condition of the Ventura River, Lake Casitas, the Fox Canyon GMA credits, and the groundwater basins, should be considered together. It is suggested that if any two of the first four triggers identified above are reached, then the decision making process for implementation of a supplemental water supply project should begin.

The water demand trigger for a long-term base-loaded supplemental water supply, the fifth trigger, should be considered independently of the drought-proofing triggers. Reaching the water demand trigger would also begin the decision making process for implementation of a supplemental water supply project regardless of the condition of the City's existing water supplies. The City Council's decision-making process to select either seawater desalination, importing SWP water or another alternative will focus on the actual circumstances at that future time.

### **8.3 Minimum Water Supply Available During Next Three Years**

The primary factor in limiting the City's existing water supplies is drought. In evaluating a three year worst-case water supply scenario, the City assumed that severe drought conditions (limited rain and above-average temperatures) would begin immediately and continue for three consecutive years (Table 8-2). Planned water sources for fiscal year 2011, reflecting capacity of current facilities will be used as an average/normal water year base for estimating purposes. Also, it was assumed that demand would not be reduced in response to the drought conditions. Available water supplies during the three year period were projected considering: 1) the current status of each existing source and 2) the past response of each existing source to similar drought conditions. Also, because of the complexities of the City's water sources, the specific numbers are only approximations.

**TABLE 8-2  
ESTIMATE OF MINIMUM SUPPLY FOR THE NEXT THREE YEARS**

Source	Supply (AF)		
	2012	2013	2014
Casitas Municipal Water District <sup>(a)</sup>	6,000	6,000	6,000
Mound Basin <sup>(b)</sup>	5,500	5,500	5,500
Oxnard Plain Basin <sup>(c)</sup>	4,100	4,100	4,100
Santa Paula Basin <sup>(d)</sup>	1,141	1,141	1,141
Ventura River (Foster Park) <sup>(e)</sup>	4,200	3,500	2,000
Recycled Water	700	700	700
<b>Total Supplies</b>	<b>21,641</b>	<b>20,941</b>	<b>19,441</b>
Groundwater Basin Reliability Supply <sup>(f)</sup>	29,200	29,200	29,200

**Notes:**

- (a) Estimated demand based on population growth within the Casitas service area served by City of Ventura water service area.
- (b) Average annual groundwater supply assumed reliable during dry years.
- (c) Average annual groundwater supply assumed reliable during dry years.
- (d) In multiple dry years, supply would be reduced to 1,141 AFY during Stage 2 reductions per 1996 Stipulated Judgment.
- (e) Supply reduced from 4,200 to 2,000 AFY during an extended drought.
- (f) Reliability supply only; not a firm supply available for new development.

**8.4 Actions to Prepare For Catastrophic Interruption**

A catastrophic interruption constitutes a proclamation of a water shortage and could be any event (either natural or man-made) that causes a water shortage severe enough to classify as either a Stage III or Stage IV water supply shortage condition.

In order to prepare for catastrophic events, the City has prepared an Emergency Response Plan (ERP) in accordance with other state and federal regulations. The purpose of this plan is to design actions necessary to minimize the impacts of supply interruptions due to catastrophic events.

The Emergency Response Plan (ERP) includes the City of San Buenaventura water system's standardized response and recovery procedures to prevent, minimize, and mitigate injury and damage resulting from emergencies or disasters of man-made or natural origin such as an earthquake, extended power outage, fire, biological or chemical contamination, and explosion. The plan takes into account the various aspects of the City's Water System Protection Program pertaining to potential malevolent threats or actual terrorism. The information contained in the ERP is intended to guide staff and inform other emergency responding agencies and includes plans, procedures, lists, and identification of equipment, emergency contacts, etc.

In Addition, the City's 2011 Water Master Plan analyzes seven different operational outage scenarios and provides an analysis of system impacts as well as long-term system improvements required to mitigate these impacts.

## **8.5 Prohibitions, Penalties, and Consumption Reduction Methods**

At each of the five stages of action within the Water Shortage Contingency Plan, the City, the Water Department and City water customers each have certain actions they must undertake. Public agency actions involve increasing public awareness and education, adopting ordinances prohibiting water waste and establishing mandatory water conservation regulations, and periodically reviewing triggering levels. Water customer actions involve implementing water conservation measures and complying with water conservation ordinances. Significant measures of the five-stage water shortage plan include:

### **Stage 1: 0-10 Percent Reduction Goal (Voluntary)**

#### Public Agency Actions

- Monitor conservation levels and increase public awareness.
- Notify customers of shortage conditions and disseminate literature.
- Publish customer use goals.
- Identify Water Shortage Contingency Plan stages and the possible actions per stage.
- Distribute water conservation brochures, information, and conservation kits.
- Conduct exterior and interior water audits upon customer requests.
- Request voluntary water consumption reduction.
- Maintain tiered rate structure to promote water conservation.
- Establish/enforce water waste ordinance.
- Establish/enforce ordinance prohibiting watering from 9 A.M. to 6 P.M.

#### Water Customer Actions

- Monitor own meter for usage.
- Implement conservation measures to reduce usage.
- Comply with water waste ordinance.
- Comply with prohibited watering during 9 A.M. to 6 P.M.

### **Stage 2: 10-15 Percent Reduction Goal (Mandatory)**

#### Public Agency Actions (In addition to actions established in previous Stage)

- Initiate Mandatory Water Conservation Regulations of Ordinance No. 92-07.
- Enforce mandatory water consumption goals and allocations for all customers.
- Enact water rate surcharge for water consumption over customer allocation.
- Water in excess of allocation is billed at four times the City's highest water rate.

- For the third consecutive excessive bill, surcharge rate is ten times the City's highest water rate. Beyond a third billing period, restrictors placed on meters, at the customer's expense.
- Enactment of allocation adjustment and penalty review programs. Customers can apply for an allocation adjustment for the reasons specified in ordinance.
- Customers may appeal in writing for a waiver of penalties incurred due to a leak or break, incorrect allocation or hardship.

Water Customer Actions (In addition to actions established in previous Stage)

- Comply with mandatory water conservation regulations.
- All water customers requesting an increase in their water allocation must undergo a water audit and install water efficient plumbing fixtures for all fixtures at their business or residence.

**Stage 3: 15-20 Percent Reduction Goal (Mandatory)**

Public Agency Actions (In addition to actions established in previous Stage)

- Initiate Mandatory Water Conservation Regulations as an Ordinance.
- Establish and enforce mandatory water consumption goals and allocations for all customers.

Water Customer Actions (In addition to actions established in previous Stage)

- Comply with mandatory water conservation guidelines.

**Stage 4: 20-30 Percent Reduction Goal (Mandatory)**

Public Agency Actions (In addition to actions established in previous Stage)

- Initiate Mandatory Water Conservation Regulations as an Ordinance.
- Establish and enforce mandatory water consumption goals and allocations for all customers.

Water Customer Actions (In addition to actions established in previous Stage)

- Comply with mandatory water conservation guidelines.

**Stage 5: 30-50+ Percent Reduction Goal (Mandatory)**

Public Agency Actions (In addition to actions established in previous Stage)

- Initiate Mandatory Water Conservation Regulations as an Ordinance.
- Establish and enforce mandatory water consumption goals and allocations for all customers.
- All water use not required for health and safety is prohibited.

Water Customer Actions (In addition to actions established in previous Stage)

- Comply with mandatory water conservation regulations.
- Prohibition of all outside water use unless necessary for the preservation of health and safety and the public welfare.
- Watering with hand-held five gallon maximum bucket, filled at exterior hose bib or interior faucet (not by hose) shall be allowed at any time. This will assist in preserving vegetable gardens or fruit trees. Outdoor use of bath water, dishwater, and laundry water for irrigation purposes is encouraged to the extent this practice is allowed under local health and safety regulations.
- The filling, refilling or adding of water to swimming and/or wading pools is prohibited.
- The operation of any ornamental fountain or similar structure is prohibited.

The City has established the following customer classifications and the allocation method for each classification during a water shortage:

- Single Family -Hybrid of Per-capita Allocation and Percentage Reduction.
- Multi-Family -Hybrid of Per-capita Allocation and Percentage Reduction.
- Commercial -Percentage Reduction.
- Industrial -Percentage Reduction.
- Fire lines -No Reduction.
- Temporary -No Reduction.
- Municipal -Percentage Reduction.
- Schools -Percentage Reduction.
- Churches -Percentage Reduction.
- Unaccounted -No Reduction.
- New Demand -Per-capita Allocation.

The following priorities for use of available water, based on California Water Code Chapter 3 and community input were used in establishing consumption limits. In order of preference they are:

- Health and Safety - interior residential and fire fighting.
- Commercial, Industrial and Governmental Uses - maintain jobs and economic base.
- Permanent Crops - takes five to ten years to replace.
- Annual Crops - protect jobs.
- Existing Landscaping - especially trees and shrubs.
- New Demand - projects without permits when shortage declared.

Each customer will be notified of their classification and allotment by mail before the effective date of the Water Shortage Emergency. New customers and connections will be notified at the

time service commences. In a disaster, prior notice of allotment may not be possible; notice will be provided by other means. A customer has the option to appeal the Utilities Business Manager's classification or allotment of their account. Appeals shall be processed as set forth in the established Mandatory Water Conservation Regulations.

In addition to the prohibitions above, the City also has a water waste ordinance. In April 1989, the City adopted Ordinance 89-6 prohibiting water waste (see Appendix F). The ordinance defined prohibited activities and the penalties to be imposed for violations. Table 8-3 below describes the penalties.

**TABLE 8-3  
PENALTIES AND CHARGES**

Penalties or Charges	Stage When Penalty Takes Effect
Water consumption over customer allocation is billed at four times the City's highest water rate	Stage 2
For the third consecutive excessive bill, surcharge rate is ten times highest water Rate. Beyond a third billing period, restrictors are placed on meters at the customer's expense.	Stage 2

Specific methods to evaluate effectiveness of water conservation programs to be employed by the City are:

- Metering of a Reclaimed Water Usage. This will determine how much has been used.
- Monitoring Production Quantities. In normal water supply conditions, production figures are recorded daily by automation. The production supervisor and the production lead worker monitor the accuracy of the monthly production totals.
- The totals are incorporated into the monthly water supply report to the State Department of Health Services by the treatment supervisor.
- During a Stage 1 or 2 water shortage, daily production figures are recorded. To verify that the reduction goal is being met, the weekly production and the target weekly production are forwarded to the Water Utility Manager and Water General Manager.
- Monthly reports are sent to the Water General Manager. If reduction goals are not met, the City Manager will notify the City Council so that corrective action can be taken.
- During a Stage 3 or 4 water shortage, the procedure listed above will be followed, with the addition of a daily production report to the Water Utility Manager.
- During a disaster shortage, production figures will be reported hourly to the Water Utility Manager, with the addition of a daily production report to the Water General Manager.
- Weekly reports will also be provided to the Water General Manager and City Manager as needed.
- Compiling annual statistics to track usage of customer groups to determine trends within those groups. This is currently being done through the water billing computer system. As stated above, a multi-year examination will aid in reducing the impact of weather patterns as a variable.

- Evaluation of the impact of low-use plumbing fixtures in new construction or retrofitted units. This can be done by multiplying the average usage with and without such fixtures versus low-use fixtures by the number of units.
- Comparing irrigation meter readings. For City parks and other landscaped areas, meter readings can be compared and analyzed to determine the effectiveness of irrigation programs, or landscape materials.

## 8.6 Revenue Impacts of Reduced Sales

Consumption reduction will impact revenues by decreasing the amount of water sold to customers. Water shortages may also impact construction activities. A reduction in construction activities will reduce fees collected by the City such as water service connection fees, engineering services fees such as plan checking, and annexation fees.

As consumption decreases, some expenditures are expected to increase. Staff costs for community education, enforcement of ordinances, monitoring and evaluation of water use, drought planning, and dealing with customer questions and complaints are expected to rise. If construction is drastically reduced, staff may not be required for certain functions, but it is expected that the increased work load to deal with water shortage issues will more than offset the reduced work load for construction support. Operations and maintenance costs may also increase because of the need to identify and quickly repair all water losses. A shift to alternative sources would change pumping, purchase, and treatment costs as different water supplies incur different purchase, treatment, and distribution costs

A summary of impacts to revenues and expenses is provided in Table 8-4.

**TABLE 8-4  
REVENUE IMPACTS DURING SHORTAGE**

<b>Stage</b>	<b>Assumed Conservation</b>	<b>Approximate Revenue Reduction</b>	<b>Approximate Expense Reduction<sup>(a)</sup></b>
Stage 1	<10%	8%	>2%
Stage 2	10%	12%	2%
Stage 3	20%	15%	3%
Stage 4	30%	25%	5%
Stage 5	50%	40%	8%

Note:

(a) Without decreasing capital program.

Source: Analysis conducted as part of 2005 UWMP.

A reduction in water revenue could be mitigated substantially through deferral or avoidance of capital fund expenditures. This would meet short-term cash flow needs, although it should only be considered on a short-term basis. Rate adjustments could also be employed either solely or in conjunction with capital expenditure reductions. A summary of measures to overcome revenue and expenditure impacts is provided in Table 8-5.

**TABLE 8-5  
MEASURES TO OVERCOME REVENUE AND EXPENDITURE IMPACTS DURING  
SHORTAGE**

Measure	Summary of Effects
Use of Reserve Funds	Use of reserves may provide short-term rate stabilization, but require delays in capital expenditures and rebuilding of reserves after the water shortage.
Decrease Capital Expenditures	Delay major construction projects for facilities as well as upgrades and replacements.
Shift Water Sources to Less Costly Supplies if Possible	Reduce costs associated purchase, treatment, and distribution of water
Rate Increases	Increase revenue

**8.7 Mechanism to Determine Reductions in Water Use**

Certain aspects of water conservation can be readily monitored and evaluated. An example is metered reclaimed water. Other aspects such as public education are more difficult to measure in terms of effectiveness. Additionally, weather patterns make it more difficult to compare one year's results with another.

When severe shortages occur and some degree of rationing is required, a program's effectiveness can be judged directly by water billings. In these cases, targeted results must be met and even reluctant customers will, on the whole, meet the goals. Specific methods to evaluate effectiveness of water conservation programs to be employed by the City are:

- Metering of a Reclaimed Water Usage. This will determine how much has been used.
- Monitoring Production Quantities. In normal water supply conditions, production figures are recorded daily by automation. The production supervisor and the production lead worker monitor the accuracy of the monthly production totals. The totals are incorporated into the monthly water supply report to the State Department of Health Services by the treatment supervisor.

During a Stage 1 or 2 water shortage, daily production figures are recorded. To verify that the reduction goal is being met, the weekly production and the target weekly production are forwarded to the Water Utility Manager and the General Manager. Monthly reports are sent to the City Manager. If reduction goals are not met, the City Manager will notify the City Council so that corrective action can be taken.

During a Stage 3 or 4 water shortage, the procedure listed above will be followed, with the addition of a daily production report to the Water Utility Manager. During a disaster shortage, production figures will be reported hourly to the Water Utility Manager, with the addition of a daily production report to the General Manager. Weekly reports will also be provided to the City Manager.

- Compiling annual statistics to track usage of customer groups to determine trends within those groups. This is currently being done through the water billing computer system. As

stated above, a multi-year examination will aid in reducing the impact of weather patterns as a variable.

- Evaluation of the impact of low-use plumbing fixtures in new construction or retrofitted units. This can be done by multiplying the average usage with and without such fixtures versus low-use fixtures by the number of units.
- Comparing irrigation meter readings. For City parks and other landscaped areas, meter readings can be compared and analyzed to determine the effectiveness of irrigation programs, or landscape materials.

**ATTACHMENT E**

**WATER CONSERVATION  
ORDINANCE, DIVISION 22 –  
PUBLIC UTILITIES,  
CHAPTER 22.170**



San Buenaventura, California, Code of Ordinances >> DIVISION 22 - PUBLIC UTILITIES >> Chapter 22.170  
Water Conservation >>

Chapter 22.170 Water Conservation

Sec. 22.170.010. Water waste prohibited.

**Sec. 22.170.010. Water waste prohibited.**

- A. *Prohibited uses.* No person shall use or permit the use of water:
1. For the watering of turf, ornamental landscape, open ground crops and trees, including agricultural irrigation, in a manner or to an extent which allows water to run to waste;
  2. Such that the escape of water through leaks, breaks or malfunction within the water user's plumbing or distribution system occurs for any period of time beyond which such break or leak should reasonably have been discovered and corrected. It shall be presumed that a period of 48 hours after the water user discovers such leak, break or malfunction, or receives notice from the city of such condition, whichever occurs first, is a reasonable time within which to correct such condition;
  3. In conjunction with use of a handheld hose to wash automobiles, trucks, trailers, boats, or other types of mobile equipment without the use of a workable positive shutoff nozzle;
  4. For the operation of any ornamental fountain, or similar structures, unless water for such use is recycled for lawful reuse without substantial loss;
  5. For washing of sidewalks, walkways, driveways, parking lots or any other hard-surfaced areas by hose or flooding, except as otherwise necessary to prevent or eliminate conditions dangerous to the public health and safety or for other legitimate necessity;
  6. For serving of water by a restaurant to its customers without first being requested by the customer; or
  7. Knowingly for any indiscriminate running of water or washing with water not otherwise prohibited above which is wasteful and without reasonable purpose.
- B. *Failure to comply.*
1. *Civil penalties.* In addition to any other penalties or sanctions provided by this Code, the following civil penalties shall apply for violation of any of the provisions of this article:
    - (a) For the first violation of any of the provisions of this article a written notice is to be given.
    - (b) For the second violation of any of the provisions of this article a surcharge penalty is hereby imposed in an amount equal to 50 percent of the most recent bimonthly water bill (exclusive of the sewer portion of the bill), or \$25.00, whichever is less, payable as part of the water bill, by the customer at the premises at which the violation occurred.
    - (c) For the third violation of any of the provisions of this article a surcharge penalty is hereby imposed in an amount equal to 25 percent of the most recent bimonthly water bill (exclusive of the sewer portion of the bill), or \$50.00, whichever is greater. This penalty is payable as part of the water bill, by the customer at the premises at which the violation occurred.
    - (d) For a fourth violation of any of the provisions of this article within 12 calendar months, the city will install a flow restricting device of one GPM capacity for services up to 1½ inch size, and comparatively sized restrictors for larger services, on the service of the

customer at the premises at which the violation occurred for a period of not less than 48 hours. The charge for installing such a flow restricting device will be based upon the size of the meter and the actual cost of installation. The charge for removal of the flow restricting device and restoration of normal service shall be based on the actual cost involved. Said charges shall be payable by said customer as part of the water bill. Restoration of normal service will be performed during the hours of 8:00 a.m. to 4:00 p.m. on regular working days. In addition, a surcharge penalty of 50 percent of the most recent water bill shall be imposed for restoration of normal service, payable by said customer as part of the water bill.

- (e) For any subsequent violation after the fourth violation of any of the provisions of this article within 12 calendar months, the city may discontinue water service to the customer at the premises at which the violation occurred.
2. *Notice.* The city will give notice of each violation to the customer at the premises at which the violation occurred, as follows:
  - (a) For a first, second or third violation, the city may give written notice of the fact of such violation to the customer personally or by regular mail.
  - (b) If the penalty assessed is, or includes the installation of a flow restrictor or the discontinuance of water service to the customer for any period of time whatever, notice of the violation will be given in the following manner:
    - (1) By giving written notice thereof to the customer personally; or
    - (2) If the customer is absent from or unavailable at either the customer's place of residence or place of business, by leaving a copy with an adult at either place, and sending a copy through the United States mail addressed to the customer at either the customer's place of business or residence; or
    - (3) If such place of residence and business cannot be ascertained, or an adult cannot be found on the premises, then by affixing a copy in a conspicuous place on the property where the failure to comply has occurred and also by delivering a copy to a person residing at the premises, if such person can be found, and also by sending a copy through the United States mail addressed to the customer at the customer's billing address and to the place where the property is situated;
    - (4) All notices will contain, in addition to the facts of the violation, a statement of the possible penalties for each violation, a statement informing the customer of the customer's right to a hearing on the violation, a brief summary of the appeal process specified herein, and the date and time termination will occur.
3. *Hearing.* Any customer against whom a penalty is to be levied pursuant to this section shall have a right to a hearing, in the first instance by the city water superintendent, with the right of appeal to the city public works director, on the merits of the alleged violation, upon the written request of that customer to the city clerk within 15 days of the date of notification of the violation. Penalties, including termination of water service, will be stayed until any such hearing is conducted and a written decision is made by the city water superintendent or his or her designee.
4. *Appeal of decision of water superintendent.* A request for an appeal must be in writing and filed with the city clerk. The filing by a customer of a request for an appeal for any form of relief must be made within 15 days of the decision of the water superintendent. Filing of such a request will automatically stay the implementation of the proposed course of action, pending the decision of the public works director. No other or further stay will be granted. The appeal hearing will be scheduled to occur within a reasonable, prompt period of time following the written notice of appeal. The water user may present any evidence which would tend to show that the alleged wasteful water use has not occurred. Formal rules of evidence will not apply and all relevant evidence customarily relied upon by reasonable persons in the conduct of

serious business affairs will be admissible, unless a sound objection warrants its exclusion by the city public works director. The decision of the city public works director shall be final.

5. *Reconnection.* Where water service is disconnected, as authorized above, it will be reconnected upon correction of the condition or activity and the payment of the estimated reconnection charge.
  6. *Public health and safety.* Nothing contained in this article shall be construed to require the city to curtail the supply of water to any customer when, in the discretion of the city water superintendent or public works director, such water is required by that customer to maintain an adequate level of public health and safety.
  7. *Reservation of rights.* The rights of the city hereunder shall be cumulative to any other rights of the city to discontinue service. All monies collected by the city pursuant to this article shall be deposited in the city water fund.
- C. *Applicability.* The provisions of this article shall apply to all persons using city water, both in the outside the city, and within the city water service areas. Sections 1.150.010 through 1.150.050 of the San Buenaventura Ordinance Code shall only apply to water users within the city. Violations of subsection A. shall be punishable as specifically provided in Ordinance Code section 1.150.030  
(Code 1971, § 4591)

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**ATTACHMENT F**

**NONCOMPLIANCE  
PENALTY OPTIONS**



## **Penalty Options for Noncompliance of Mandatory Water Conservation Regulations**

The following are the three proposed penalty structures associated with noncompliance of mandatory water conservation regulations. Option A is the penalty structure of the City's Water Waste Ordinance that is currently being implemented, Option B is City staff proposed penalty structure based on what is being implemented by other local agencies, and Option C is a penalty structure with reduced fines of the staff recommend option (a hybrid of Option A & B).

The selected penalty structure would apply to all water customers, and would apply to all mandatory water conservation regulations, including the Water Waste Ordinance.

**Option A: Current Penalty Structure** – Penalty structure currently implemented per the City's water waste ordinance:

*Civil penalties.* In addition to any other penalties or sanctions provided by this Code, the following civil penalties shall apply for violation of any of the provisions of this article:

- (a) For the first violation of any of the provisions of this article a written notice is to be given.
- (b) For the second violation of any of the provisions of this article a surcharge penalty is hereby imposed in an amount equal to 50 percent of the most recent bimonthly water bill (exclusive of the sewer portion of the bill), or \$25.00, whichever is less, payable as part of the water bill, by the customer at the premises at which the violation occurred.
- (c) For the third violation of any of the provisions of this article a surcharge penalty is hereby imposed in an amount equal to 25 percent of the most recent bimonthly water bill (exclusive of the sewer portion of the bill), or \$50.00, whichever is greater. This penalty is payable as part of the water bill, by the customer at the premises at which the violation occurred.
- (d) For a fourth violation of any of the provisions of this article within 12 calendar months, the city may install a flow restricting device of one GPM capacity for services up to 1½ inch size, and comparatively sized restrictors for larger services, on the service of the customer at the premises at which the violation occurred for a period of not less than 48 hours. The charge for installing such a flow restricting device will be based upon the size of the meter and the actual cost of installation. The charge for removal of the flow restricting device and restoration of normal service shall be based on the actual cost involved. Said charges shall be payable by said customer as part of the water bill. Restoration

of normal service will be performed during the hours of 8:00 a.m. to 4:00 p.m. on regular working days. In addition, a surcharge penalty of 50 percent of the most recent water bill shall be imposed for restoration of normal service, payable by said customer as part of the water bill.

- (e) For any subsequent violation after the fourth violation of any of the provisions of this article within 12 calendar months, the city may discontinue water service to the customer at the premises at which the violation occurred.

**Option B: Staff Recommended Penalty Structure** – Based on the penalty structure implemented by the local cities of Camarillo, Thousand Oaks, Oxnard and Port Hueneme; and the Casitas Municipal Water District, Meiners Oaks Water District, and Ventura River Water District:

Penalty fines and water service actions may be levied and applied for each verifiable violation of a provision of the Ordinance as follows:

- a. First Violation: The City will provide educational material to the customer and offers services which may include water survey and customer assistance.
- b. Second Violation: The City will issue a written notice to the water customer describing the violation, required compliance date and require a signature that the customer has received the notification.
- c. Third Violation: If the second violation is not corrected within the time frame specified by the City, or if a third violation occurs within the following twelve (12) months after the second violation notice, a third notice of violation will be issued and a penalty fine of one hundred dollars (\$100) shall be levied for the third violation.
- d. Fourth Violation: If the third violation is not corrected within the time frame specified by the City, or if a fourth violation occurs within the following twelve (12) months after the third violation notice, a fourth notice of violation will be issued and a penalty fine of two hundred dollars (\$200) shall be levied for the fourth violation.
- e. Fifth Violation: If the fourth violation is not corrected within the time frame specified by the City, or if a fifth violation occurs within the following twelve (12) months after the fourth violation notice, a fifth notice of violation will be issued and a penalty fine of three hundred dollars (\$300) shall be levied for the fifth violation.
- f. Sixth Violation: If the fifth violation is not corrected within the time frame specified by the City, or if a sixth violation occurs within the following twelve (12)

months after the fifth violation notice, a sixth notice of violation will be issued and a penalty fine of four hundred dollars (\$400) shall be levied for the sixth violation.

- g. **Seventh Violation:** If the sixth violation is not corrected within the time frame specified by the City, or if a seventh violation occurs within the following twelve (12) months after the sixth violation notice, a seventh notice of violation will be issued and a penalty fine of five hundred dollars (\$500) shall be levied for the seventh violation. Each day that a violation occurs beyond the remedy allowance provided in the seventh notice of violation the customer is subject to any or all of the following penalties:
  - 1. A fine \$500 may be imposed per day of continued violation.
  - 2. Water service may be restricted or may be turned off. Where water service is flow restricted or turned off, it shall be unrestricted or turned on upon correction of the violation and the payment of the reconnection charges.

**Option C: Reduced Fine Penalty Structure** – A hybrid option between A and B with reduced fines, not implemented locally.

Penalty fines and water service actions may be levied and applied for each verifiable violation of a provision of the Ordinance as follows:

- h. **First Violation:** The City will provide educational material to the customer and offers services which may include water survey and customer assistance.
- i. **Second Violation:** The City will issue a written notice to the water customer describing the violation, required compliance date and require a signature that the customer has received the notification.
- j. **Third Violation:** If the second violation is not corrected within the time frame specified by the City, or if a third violation occurs within the following twelve (12) months after the second violation notice, a third notice of violation will be issued and a penalty fine of fifty dollars (\$50) shall be levied for the third violation.
- k. **Fourth Violation:** If the third violation is not corrected within the time frame specified by the City, or if a fourth violation occurs within the following twelve (12) months after the third violation notice, a fourth notice of violation will be issued and a penalty fine of one hundred dollars (\$100) shall be levied for the fourth violation.
- l. **Fifth Violation:** If the fourth violation is not corrected within the time frame specified by the City, or if a fifth violation occurs within the following twelve (12) months after the fourth violation notice, a fifth notice of violation will be issued

and a penalty fine of one hundred and fifty dollars (\$150) shall be levied for the fifth violation.

- m. Sixth Violation: If the fifth violation is not corrected within the time frame specified by the City, or if a sixth violation occurs within the following twelve (12) months after the fifth violation notice, a sixth notice of violation will be issued and a penalty fine of two hundred dollars (\$200) shall be levied for the sixth violation.
- n. Seventh Violation: If the sixth violation is not corrected within the time frame specified by the City, or if a seventh violation occurs within the following twelve (12) months after the sixth violation notice, a seventh notice of violation will be issued and a penalty fine of two hundred and fifty dollars (\$250) shall be levied for the seventh violation. Each day that a violation occurs beyond the remedy allowance provided in the seventh notice of violation the customer is subject to any or all of the following penalties:
  - 3. A fine \$250 may be imposed per day of continued violation.
  - 4. Water service may be restricted or may be turned off. Where water service is flow restricted or turned off, it shall be unrestricted or turned on upon correction of the violation and the payment of the reconnection charges.

**ATTACHMENT G**

**“WORKING TOGETHER TO  
SAVE OUR WATER “  
-OUTREACH PLAN 2014**



## **“Working Together to Save Our Water” Outreach Plan 2014**

### **Purpose:**

- Communicate goal of working together to become “the most water efficient community” in California (drought or no drought)
- Educate customers about the reasons for and benefits of conserving water, especially during drought conditions
- Educate customers about their responsibility as a long-term partner in protecting and using our local water wisely
- Public discussion regarding specific community actions to stop and prevent all forms of water waste
- Collect community feedback on draft Water Shortage Contingency Plan and report to Council

### **Key Dates**

- July 7: City Council considers potential water shortage actions in response to continuing drought conditions
- July 7-31: “Don’t Wash Your Car” radio campaign begins
- July 31: Community workshop on draft plan
- September: City Council considers draft Water Shortage Contingency Plan

### **DIRECT COMMUNICATION METHODS**

- City-initiated meetings and workshops/Speakers Bureau: Address local civic and business organization, homeowners associations, service clubs, town hall meetings, etc. (Community Councils, VUSD, Chamber, VC, etc.)
- Events: cross-promoting the water efficiency message at local events
- Social media: Facebook, Twitter, YouTube, Blog
- Community survey: “Carrots and Sticks to Save Our Water”

### **INDIRECT COMMUNICATION METHODS**

- Print/e-mail outreach: City Website, Blogs, Pipeline e-Newsletter; My Ventura magazine
- Newspaper: Ask the Director, Eye on the Environment
- Media outreach: interview opportunities with KVTA, VC Star, Ventura Breeze
- Advertising: PSAs, print ads, billboards, signage
- Videos/CAPS: city-generated cable and YouTube video programming

### June 2014

- Roll out water efficiency materials City-wide
- Distribute State-wide Save Our Water (SOW) materials
- Post water conservation signage – parks, downtown, yards
- Continue water efficiency messaging on social media channels

### July 2014

- “Don’t Wash Your Car” to save water radio/advertising campaign
- Community workshop on Water Shortage Contingency Plan

9/17/2014



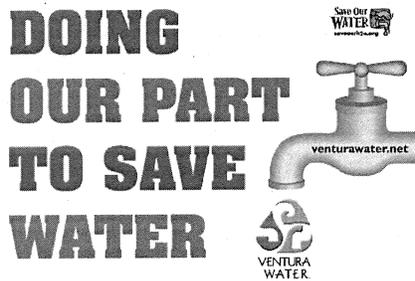
- Promote community survey “Carrots and Sticks to Save Our Water”
- Engage community through Water: Take 1 Online Short Film Contest

August 2014

- Continued customer feedback on future water reduction methods
- Water efficiency case studies/return on investment
- Pitch local news stories
- Evaluate summer outreach program results
- Develop HOA/multi-family outreach strategy
- Promote Water: Take 1 Online Short Film Contest September 15 film entry deadline (early bird)

September – November 2014

- Launch the “new normal landscape” or “time to plant” campaign
- Water Wise monthly community classes (with hands-on component)
- School K, 2, 4 module on local water resources
- Educational resources targeting low water use landscaping alternatives
- Launch rebates/incentives program, if desired by community
- Promote Water: Take 1 Online Short Film Contest November 1 film entry deadline
- Water: Take 1 community event



A LITTLE DIRT WON'T HURT...  
 Californians Don't Waste.



#saveourwater

**ATTACHMENT H**

**CITY COUNCIL  
POWERPOINT PRESENTATION**



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# Water Shortage Emergency Resolution and Mandatory Water Restriction Ordinance

**Shana Epstein**  
Ventura Water General Manager

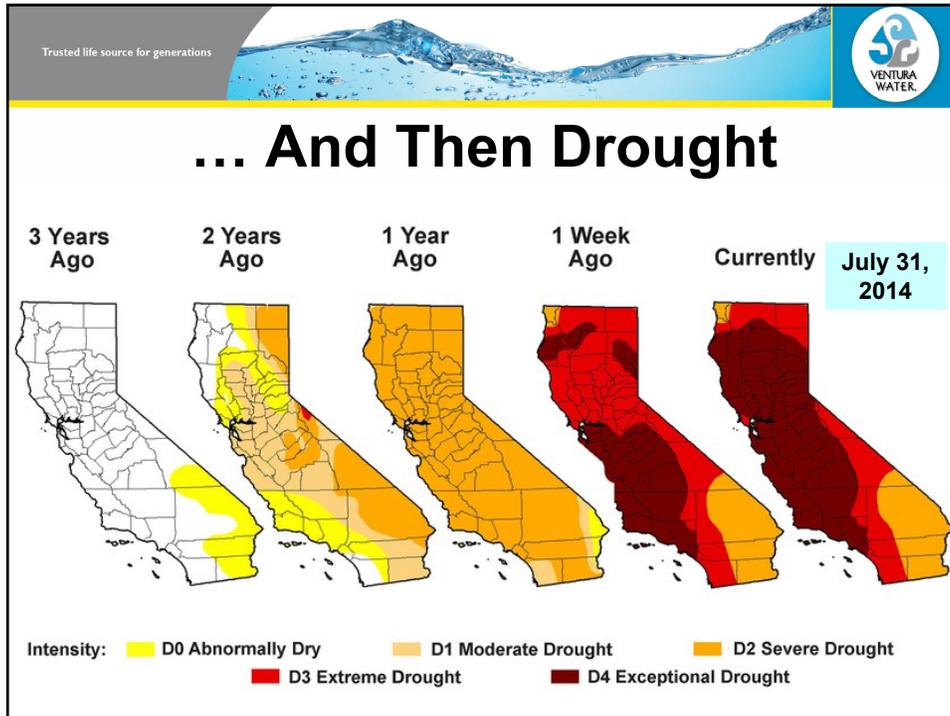
**City Council Meeting**  
**September 22, 2014**

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## Overview

- **State Water Resources Control Board**
  - **July 15, 2014 Action**
  - **Consistency with Existing Municipal Code**
  - **Additional actions required**
- **City Council created Task Force**
- **Task Force Recommendation**
- **Emergency Resolution and Mandatory Water Restriction Ordinance**



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## 10% Voluntary Reductions

- February call
- Targeted outdoor irrigation reductions (uses 40% to 60% of water)
- Water wise landscaping or lawn replacement



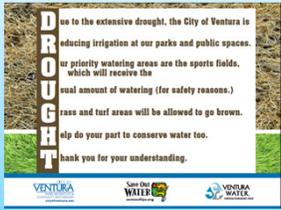
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## Why Are We Here?

- Drought
- Diminishing water supplies
- Ensuring future water supply
  - High quality
  - Reliable
  - Sustainable

**D**ue to the extensive drought, the City of Ventura is reducing irrigation at our parks and public spaces. **R**our priority watering areas are the sports fields, which will receive the **O**usual amount of watering (for safety reasons.) **U**rras and turf areas will be allowed to go brown. **H**elp do your part to conserve water too. **T**hank you for your understanding.

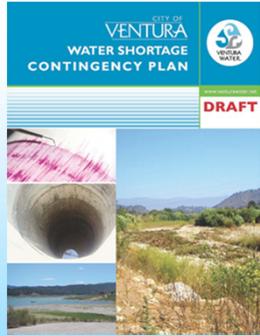


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## July 15 State Action

- Water suppliers to initiate programs
  - Water Audits
  - Utilize Police and Fire as outreach
- Authorizes fines up to \$500
  - Specific water waste activities
- Implement Contingency Plan
  - Achieve 20% reduction from 2013
  - Rates and other actions



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## Ventura's Compliance

- **Water Waste Ordinance prohibited uses**
  - \*Allowing water to run to waste for outdoor use
  - Allowing leaks to persist past 48 hours
  - \*Using a handheld hose to wash without a positive shutoff nozzle
  - Serving water to restaurant customers without first being asked
  - \*Operating fountains without recycling the water
  - \*Washing hardscape
  - Knowingly wasting water

*\* Aligns with July 15 State action*

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## Water Waste Examples

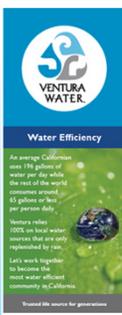


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## Ventura's Compliance

- **Water Waste Ordinance enforcement**
- **Begins with education**
  - **By City staff**
  - **By Neighbors**
- **City official warning**
- **Progressive fines starting at \$25**



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## Water Efficiency Outreach YTD

- **Bill inserts, My Ventura magazine, Pipeline newsletter**
- **Website**
- **Social Media – Facebook, Twitter, Blog**
- **Videos – YouTube Channel**
- **Special Events and Water Wise Classes**



[saveourh2o.org](http://saveourh2o.org)



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## Water Efficiency Outreach - Summer

- “Don’t Wash Your Car” Challenge
- Fun/Car wash education
- Radio promotion (English & Spanish)
- Billboard/Facebook Contest




The billboard features two cars with "Don't Wash Me!" written on their rear windows. Text includes "A LITTLE DIRT WON'T HURT... Californians Don't Waste.", "VENTURA WATER", "Save Our WATER", "#saveourwater", "A Little Dirt Won't Hurt", "AUGUST 2014", and "DON'T WASH YOUR CAR CHALLENGE".

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## Water Efficiency Outreach - Sept

- City-wide engagement – new Water Efficiency Brochure & leak kits
- Water Hero Yard Signs
- Downtown Save Our Water Signs
- Water Surveys



The brochure is titled "Uso eficiente del agua" and "Water Efficiency". It states: "An average Californian uses 176 gallons of water per day while the rest of the world consumes around 65 gallons or less per person daily." It also mentions: "Ventura saves 100% on total water meters that are only replenished by rain. Let's work together to become the most water efficient community in California." It includes the Ventura Water logo and the tagline "Trusted life source for generations".



The sign says "DOING OUR PART TO SAVE WATER" with the Ventura Water logo and a faucet icon.



The sign says "HACIENDO NUESTRA PARTE PARA AHORRAR AGUA" with the Ventura Water logo and a faucet icon.



The sign features a car with "¡No me lave!" written on it. Text includes "El 2014 coche oficial de California", "No vamos a la autoventa porque Californians no pierden.", and the Ventura Water logo.

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## Water Efficiency Outreach - Fall

- “Extreme Water Saver” Challenge
- Re-think water use/share ideas
- Radio promotion+Social Media
- Supports “stop water waste” message



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## Water Efficiency Outreach - Fall

- Goal: Most water efficient community in California
- Goal: New normal landscape - no turf, rainwater capture, graywater, mulch
- Water Wise and School Classes
- Potential incentive programs





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## Compliance Next Steps

- **Outdoor water use restrictions**
  - **2 days a week watering**
- **Water Shortage Contingency Plan Stages implementation**
  - **Rates, surcharges**



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## Task Force Scope of Work

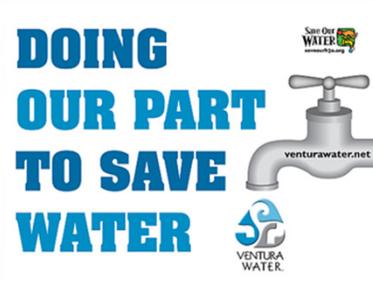
- **Define water use baseline to measure success**
  - **State using 2013**
- **Define additional outdoor water use restrictions**
- **Evaluate Water Shortage Contingency Plan Rate Structure**
  - **Immediate need**
  - **Longevity for nimble response in future**

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## Task Force Member Composition

- **Rate structures and customer impact knowledge**
  - 8 of 9 Water Rate Advisory Committee members returning
- **Additional expertise from Ventura Water customers**
  - Environmental
  - Planner
  - Developer
  - Water Hydrologist
  - Business community



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## Water Shortage Task Force Recommendation

Prepare a resolution for the City Council recognizing the statewide water supply shortage emergency. Prepare an ordinance restricting outdoor irrigation of ornamental landscape or turf with potable water through an irrigation system between the hours of 9:00 a.m. and 6:00 p.m. Pacific Standard Time, and to be limited to two days a week. A week being defined as Sunday through Saturday. Exceptions for: (a) short periods of time for the express purpose of adjusting or repairing an irrigation system, (b) low-flow drip irrigation systems and (c) for sports fields to maintain safe conditions.

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## Noncompliance Penalty Structure

Proposed structures:

- Option A is the penalty structure of the City's Water Waste Ordinance
- Option B is City staff proposed structure based on implementation by other local and statewide agencies
- Option C is a penalty structure with reduced fines of the staff recommend option (a hybrid of Option A & B).

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## Penalty Option A

- Penalty structure currently implemented per the City's water waste ordinance
- Option selected by Water Shortage Task Force

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# 1<sup>st</sup> Offense - Educational Notice

## Door Hanger



**Dear Resident,**

In the spirit of cooperation to stop water waste, we are alerting you that the following activities have been observed at your residence:

- Your sprinklers are spraying the pavement.
- Your irrigation water is running onto the pavement.
- You have a broken sprinkler and/or your irrigation system is leaking.
- You were using a hose to wash a driveway, sidewalk or other paved surface.
- You were washing your car without a shutoff nozzle on the hose.
- Other \_\_\_\_\_

The City of Ventura prohibits these water waste activities and we request that you correct these issues within 48 hours from this notice. If corrected promptly, no further action is necessary on your part, but please be aware that this water misuse has been documented. For more information, contact Customer Care at (805) 667-6500 or myvtawater@cityofventura.net or visit www.venturawater.net.

This document is available in alternate formats by calling (805) 667-6500 or by contacting the California Relay Service.

Please complete this section and return mail to Ventura Water, Customer Care or City Maintenance Dept.  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 (Complete reverse side) 805 667 6500

**Dear Resident,**

In the spirit of cooperation to stop water waste, we are alerting you that the following activities have been observed at your residence:

- Your sprinklers are spraying the pavement.
- Your irrigation water is running onto the pavement.
- You have a broken sprinkler, and/or your irrigation system is leaking.
- You were using a hose to wash a driveway, sidewalk or other paved surface.
- You were washing your car without a shutoff nozzle on the hose.
- Other \_\_\_\_\_

The City of Ventura prohibits these water waste activities and we request that you correct these issues within 48 hours from this notice. If corrected promptly, no further action is necessary on your part, but please be aware that this water misuse has been documented. For more information, contact Customer Care at (805) 667-6500 or myvtawater@cityofventura.net or visit www.venturawater.net.

This document is available in alternate formats by calling (805) 667-6500 or by contacting the California Relay Service.

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# 1<sup>st</sup> Offense - Educational Letter

## Mailed Directly to Resident/Business




**Dear Customer,**

In the spirit of cooperation to stop water waste, we wanted to alert you that the following has been observed at your residence/business:

- Your sprinklers are spraying the pavement.
- Your irrigation water is running onto the pavement.
- You have a broken sprinkler, and/or your irrigation system is leaking.
- You were using a hose to wash a driveway, sidewalk, or other paved surface.
- You were washing your car without a shutoff nozzle on the hose.
- Other \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_ (if known)

The City of Ventura prohibits these water waste activities and we request that you correct these issues within 48 hours from this notice. If corrected promptly, no further action is necessary on your part, but please be aware that this water misuse has been documented.

To help our customers, Ventura Water has water efficiency devices such as low-flow shower heads, faucet aerators and hose shut-off nozzles available for pick-up as well as free water survey services. Please contact Customer Care at myvtawater@cityofventura.net or (805) 667-6500 for more information or an appointment. Please read the enclosed brochure with more water efficiency tips.

For the latest about Ventura's water supplies and how you can help during the drought, please visit www.venturawater.net to connect with Ventura Water.

Everyone needs to do their part to save water. Thank you for your cooperation.

This document is available in alternate formats by calling (805) 667-6500 or by contacting the California Relay Service.

501 Poli Street • P.O. Box 99 • Ventura, California 93002-0099 • 805.667.6500  
 Printed on 100% post consumer recycled paper.

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## 2<sup>nd</sup> Offense – Written Notice of Violation

**WORKING TOGETHER TO SAVE WATER**

**Dear Resident,**

In the spirit of cooperation to stop water waste, we are alerting you that the following activities have been observed at your residence:

- Your sprinklers are spraying the pavement.
- Your irrigation water is running onto the pavement.
- You have a broken sprinkler and/or your irrigation system is leaking.
- You were using a hose to wash a driveway, sidewalk or other paved surface.
- You were washing your car without a shutoff nozzle on the hose.
- Other \_\_\_\_\_

The City of Ventura prohibits these water waste activities and we request that you correct these issues within 48 hours from this notice. If corrected promptly, no further action is necessary on your part, but please be aware that the water waste has been documented. For more information, contact Customer Care at (805) 467-4300 or representative@cityofventura.net or visit www.venturawater.net.

This document is available in alternate formats by calling (805) 467-4300 or by contacting the Customer Care Service.

(City staff please complete this section and brown mail to Ventura Water Customer Care at City Maintenance Yard)

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Address: \_\_\_\_\_

(Complete reverse side)      WW-1 REV. 8-2014

**TRABAJANDO JUNTOS PARA AHORRAR AGUA**

**Estimado Residente,**

En el espíritu de cooperación para parar el desperdicio de agua, le estamos alertando que las siguientes actividades han sido observadas en su residencia:

- Sus aspersores están rociando el pavimento.
- El agua de riego está corriendo sobre el pavimento.
- Tiene un aspersor roto, y/o su sistema de riego tiene fugas.
- Estaba usando una manguera para lavar una carretera, aceras u otra superficie pavimentada.
- Estaba lavando su coche sin una boquilla de cierre en la manguera.
- Otro: \_\_\_\_\_

La Ciudad de Ventura prohíbe estas actividades que desperdician agua y le pedimos que corrija estos problemas dentro de las 48 horas de esta notificación. Si se corrigen rápidamente, no hay que tomar más medidas de su parte. Pero lea de tener en cuenta que esto está registrado. Para obtener más información, comuníquese con el Servicio al Cliente al (805) 467-4300 o representativo@cityofventura.net o visite www.venturawater.net.

Este documento está disponible en formatos alternativos contactando al (805) 467-4300 por el Servicio de Atención al Cliente.

(City staff please complete this section and brown mail to Ventura Water Customer Care at City Maintenance Yard)

Sprinkler spraying pavement     Irrigation water runoff

Broken sprinkler or leak     Hosing pavement

Car washing with no shutoff nozzle

Other \_\_\_\_\_

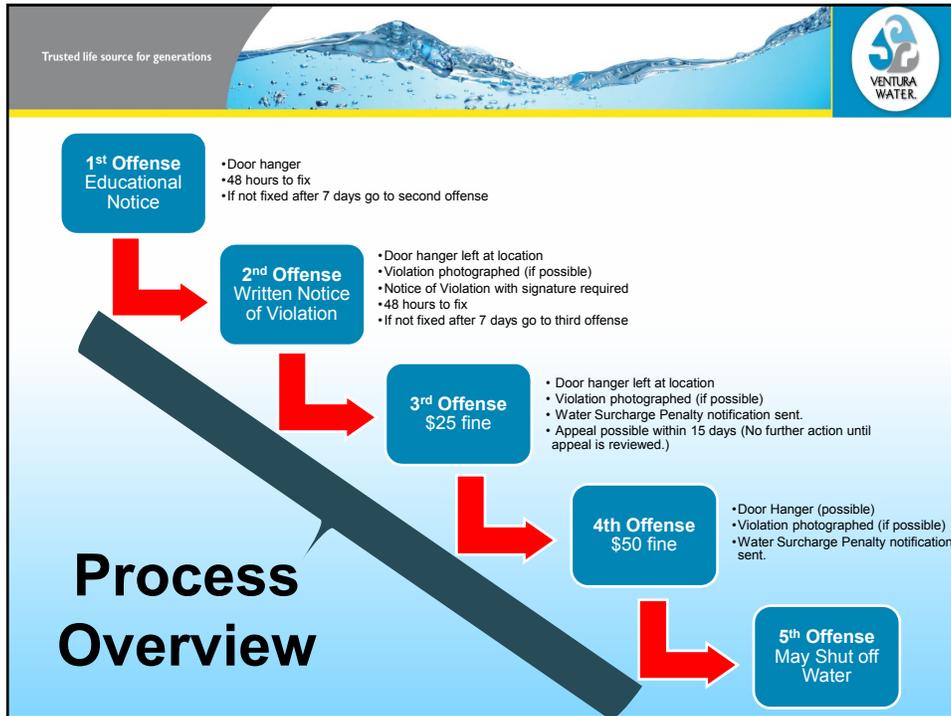
Staff printed name: \_\_\_\_\_

Staff signature: \_\_\_\_\_

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## 3<sup>rd</sup> – 5<sup>th</sup> Offense

- Third offense = \$25 fine
- Fourth offense = \$50 fine
- Fifth offense - Flow maybe restricted or shut-off



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- 
- ## Recommendations
- a. **Receive recommendations for water use restrictions from the Water Shortage Task Force.**
  - b. **Adopt a resolution declaring a water shortage emergency condition prevails within the City’s water service area.**
  - c. **Adopt an emergency ordinance declaring a water shortage emergency and adopting water use regulations.**

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# Questions?

Follow Ventura Water on






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## City Parks Actions

- Water by Priority
- Safety
- Aesthetics
- Passive and low-watered areas
- Drought signs - July




**DROUGHT** Due to the extensive drought, the City of Ventura is reducing irrigation at our parks and public spaces. Our priority watering areas are the sports fields, which will receive the usual amount of watering (for safety reasons.) Grass and turf areas will be allowed to go brown. Help do your part to conserve water too. Thank you for your understanding.





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## City Actions & Collaboration

- Leak detection program for City pipes
- Fire Department tracking/reduced usage
- Green Business Certification, Sustainability Kits
- Water efficient devices in City facilities




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## Motivational Incentives

- Incentives: rebates/services?
  - High efficiency appliances
  - Cash for grass
  - Water surveys
- Funding options
  - No grants
  - Full subsidy/cost sharing?



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## Water Efficiency Actions - July

- City-wide engagement – new Water Efficiency Brochure & leak kits & talking points
- Water Hero Yard Signs
- Downtown SOW Signs



**DOING OUR PART TO SAVE WATER**



**HACIENDO NUESTRA PARTE PARA AHORRAR AGUA**



**El 2014 coche oficial de California**

*¡No me lave!*

*¡No seamos o los sintamos porque Californians no perder.*



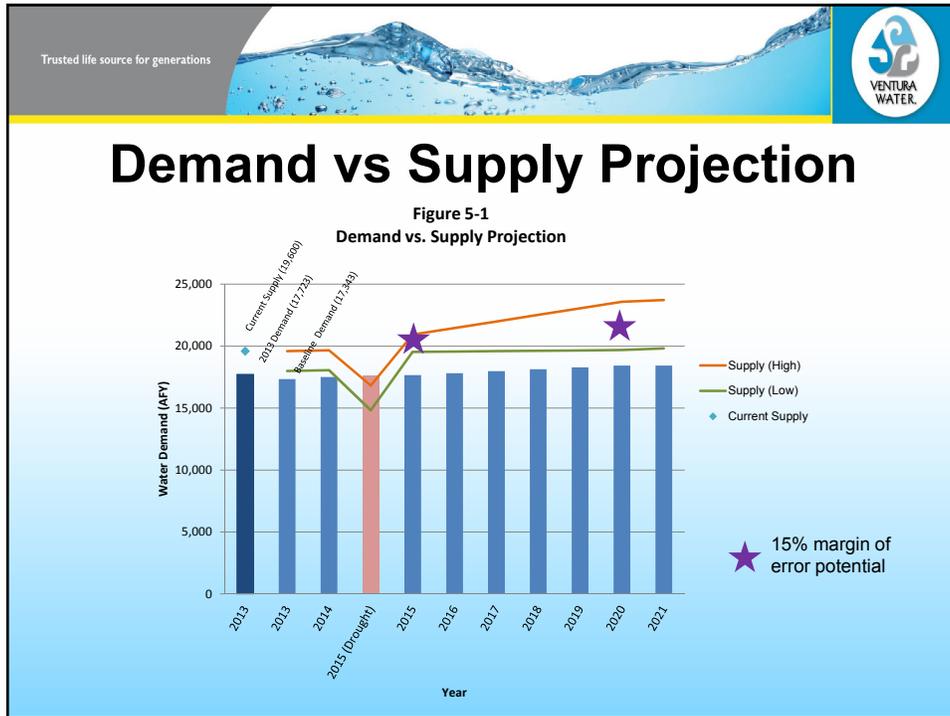
**Water Efficiency**

Uso eficiente del agua

## Proposed Water Restriction Levels

LEVEL	SUPPLY SIGNAL <sup>1</sup>	GALLONS PER DAY (gpd) (gallons/capita/day) <sup>2</sup> (HCF/person/bimonthly billing)	DEMAND REDUCTION GOAL
<b>1</b> Moderate Shortage	13,632 - 15,336 AF/Yr 1,136 - 1,278 AF/month	12,169,881 - 13,691,116 gpd 113 - 127 gpcd 9 -10 HCF/person/billing period	<b>Stage 1:</b> 10 - 20% Voluntary
<b>2</b> Severe Shortage	8,520 - 13,632 AF/Yr 710 - 1,136 AF/month	7,606,176 - 12,169,881 gpd 70 - 112 gpcd 6 - 9 HCF/person/billing period	<b>Stage 2:</b> 20% Mandatory <b>Stage 3:</b> 30% Mandatory <b>Stage 4:</b> 40% Mandatory <b>Stage 5:</b> 50% Mandatory
<b>3</b> Critical Shortage	Less than 8,520 AF/Yr Less than 710 AF/month	7,606,176 gpd Less than 70 gpcd 6 HCF/person/billing period	<b>Greater than 50% Mandatory</b>

1. Based on the last five year average demand of 17,343 AF from the Final 2014 Comprehensive Water Resources Report, RBF, May 2014.  
2. Population number based on 2012 United States Census Data.



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## UCLA Study of LADWP Efforts “What Conservation Measures Work”

- Mandatory restrictions more effective than voluntary measures
- Lower income groups respond more than higher income groups
- Greatest impact resulted from a combination of mandatory watering restrictions and price increase
- Greater impact by targeting outdoor irrigation



Agenda Item Number 3  
Historical Production 2004-2014  
Ventura Water Administrative Report –  
Historical Production 2004-2014  
September 23, 2014





# ADMINISTRATIVE REPORT

Date: September 18, 2014

Agenda Item No: 3

Meeting Date: September 23, 2014

**To: WATER SHORTAGE TASK FORCE**

**From: SHANA EPSTEIN, VENTURA WATER GENERAL MANAGER**

**Subject: HISTORICAL PRODUCTION 2004-2014**

## **RECOMMENDATIONS**

Receive and file report.

## **DISCUSSION**

Per the Task Force request for 10 years of production data Ventura Water is providing historical production numbers from all Ventura Water sources for Calendar Years 2004-2014 (2014 = January-August).

Please note that the production numbers shown below do not include production from the Las Posas Groundwater Basin. This supply is used exclusively for the Saticoy Country Club area (Country Club and residential properties) and is separate from the City's other water supply sources.

Calendar Year	Total (AF)
2004	22,789
2005	20,106
2006	18,695
2007	19,280
2008	18,655
2009	17,666
2010	16,498
2011	16,495
2012	17,050
2013	17,711
2014 (Jan-Aug)	11,480

Prepared by Ryan Kintz, Environmental Services Specialist  
For

A handwritten signature in blue ink, appearing to read 'SE', is written over a horizontal line.

Shana Epstein  
Ventura Water General Manager



Agenda Item Number 4  
Water Shortage Contingency Plan  
Workshop

Ventura Water Administrative Report  
with Attachments A - C

September 23, 2014





# ADMINISTRATIVE REPORT

Date: September 18, 2014

Agenda Item No: 4

Meeting Date: September 23, 2014

**To: WATER SHORTAGE TASK FORCE**

**From: SHANA EPSTEIN, VENTURA WATER GENERAL MANAGER**

**Subject: WATER SHORTAGE CONTINGENCY PLAN WORKSHOP**

## **RECOMMENDATION**

Participate in a Water Shortage Contingency Plan workshop to brainstorm policy ideas on the topics of: 1) Water Shortage Stages; (2) Conservation Measures Associated with Water Shortage Stages; and (3) A Water Shortage Allocation Program.

## **DISCUSSION**

### **Workshop Process:**

The Task Force Members are asked to participate in a Water Shortage Contingency Workshop to gather policy ideas on the topics of: (1) Water Shortage Stages; (2) Conservation Measures Associated with Water Shortage Stages; and (3) A Water Shortage Allocation Program. The members have been arbitrarily placed into three groups. Each group will have 15 minutes to discuss each of the topics outlined below. All members will have an opportunity to provide input on all topics. Each group will be asked to select a spokesperson to report back to the entire task force a summary of their group's ideas and recommendations on each topic.

During the workshop process the public is welcome to move from topics with a task force group or stay at a particular topic location, however the public is asked to refrain from participating in the topic discussion. The public will have an opportunity to ask questions and comment after the three spokespersons have reported back to the full Task Force.

The outcome of the workshop is to narrow the policy options to amend the existing Water Shortage Contingency Plan. Therefore, comments collected from the workshop discussion will be consolidated into common policy themes and a summary presented at the October 8th Task Force meeting.

## **Task Force Workshop Groups:**

**Group A:** Don Jensen, Ted Cook, Diane Underhill, Bryan Bondy

**Group B:** Ed Summers, Diane de Mailly, Marty Melvin, Robert McCord

**Group C:** Suzanne McCombs, Rob Corley, Edward McCombs, Don Mills, Douglas Hahn

## **Workshop Topics and Facilitators:**

The workshop discussion topics are based on the City's Water Shortage Contingency Plan (Attachment A).

### **(1) Water Shortage Stages**

Facilitators: Susan Rungren & Ryan Kintz

Group Order: A, B & C

#### **Discussion Topics:**

- Are you comfortable with the five stages currently in place?
- Are the stages concise enough?
- How would you make them more concise or broader?
- Are the triggers identified what you think the City should use?
- What factors do you think the City should use for the triggers?
- Should the City just identify the reduction level needed and not have triggers?
- What should the duration of stages be? How early should a stage be called, and when should a stage be downgraded?
- For the longevity of the triggers residing in the municipal code, what is the best way to discuss stages, by supply quantity or resource availability?

### **(2) Conservation Measures Associated with Water Shortage Stages Conservation**

Facilitators: Nancy Broschart & Jill Sarick

Group Order: B, C & A

#### **Discussion Topics:**

- Are there conservation measures the City has excluded in our Water Shortage Contingency Plan that should be included (see Attachment B – USEPA Water Conservation Measures, for ideas of possible water conservation measures)?
- Should the City only focus on outdoor water use since we can enforce that?
- What indoor conservation measures would be acceptable to Ventura residents?
- What additional outdoor conservation measures should be considered?
- Should there be a distinction among customer classifications?

(3) **Water Shortage Allocation Program Stages**

Facilitators: Shana Epstein & Mary Landis

Group Order: C, A & B

**Discussion Topics:**

- What are the advantages of an allocation program?
- What are the disadvantages of an allocation program?
- Should the City implement an allocation program?
- If so at what stage does the City implement a program?
- How should the City determine what allocations should be?
- Attached are ideas City staff has come up with for determining allocations (see Attachment C - Potential Methods for Calculating Allocation). What suggestions do you have?
- Should the City shorten each tier? Or add more tiers?
- Should any customers be exempt from the program who and why?
- What if a customer is already conserving how should the customer be rewarded?
- How does the City determine that a customer has conserved enough? And is this applicable for all stages?

ATTACHMENTS:

- A. 2010 Urban Water Management Plan, Water Shortage Contingency Plan
- B. USEPA Water Conservation Measures
- C. Potential Methods for Calculation Allocation

Prepared by Karen Waln, Management Analyst II  
For



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Shana Epstein  
Ventura Water General Manager



**ATTACHMENT A**

**2010 URBAN WATER  
MANAGEMENT PLAN,  
WATER SHORTAGE  
CONTINGENCY PLAN**



## Section 8: Water Shortage Contingency Planning

### 8.1 Overview

This chapter documents the City’s Water Shortage Contingency Plan and Emergency Response Plan (ERP) per requirements of Section 10632 of the Act.

The purpose of the Water Shortage Contingency Plan is to provide a plan of action to be followed during the various stages of a water shortage. The plan includes the following elements: action stages, estimate of minimum supply available, actions to be implemented during a catastrophic interruption of water supplies, prohibitions, penalties and consumption reduction methods, revenue impacts of reduced sales, and water use monitoring procedures.

### 8.2 Stages of Action to Respond to Water Shortages

The City has developed a five-stage water shortage plan to reduce demands up to a minimum of 50 percent of normal supply during a severe or extended water shortage. The plan includes voluntary and mandatory stages which are intended to be fair to all water customers with the minimum impact on business, employment and quality of life. Water shortage triggering levels are established to ensure that the policy statements are implemented. Two types of triggers are discussed below: 1) Triggers that would elicit a short term water supply response (i.e., voluntary or mandatory water conservation program, emergency water connections, etc.) and 2) Triggers that would trigger a long-term water supply response (i.e., seawater desalination facility, imported water, etc.). The water shortage stages and the reduction goals for each stage are outlined in Table 8-1.

**TABLE 8-1  
RATIONING AND REDUCTION GOALS**

Deficiency	Stage	Demand Reduction Goal	Type of Program
Up to 10%	Stage 1	10% Reduction	Voluntary
10-15%	Stage 2	15% Reduction	Mandatory
15-20%	Stage 3	20% Reduction	Mandatory
20-30%	Stage 4	30% Reduction	Mandatory
30-50%+	Stage 5	50%+ Reduction	Mandatory

If the predicted shortage is in total water supply sources for the current year or subsequent years, the appropriate stage allocation program should be in effect year round. For shortages limited to peak demand days, the City Council has the option of limiting the allocation program to the six months from May to October.

The City currently has a monitoring program to provide roughly five year’s advance warning of the need for a supplemental water supply, whether the need be for drought proofing or for long term base-loaded supply. This will give the City sufficient time to fully implement a supplemental water supply project, from the feasibility study phase to completion of construction and start up of the facility. This program includes a biennial report, provided to the City Council, of our water supply conditions. The water supply conditions which will be reviewed include the

production from the Ventura River, the storage level in Lake Casitas, the City's Fox Canyon GMA credits, the status of the City's other groundwater basins, and water demand within the City.

In addition to the short term water supply triggers described above, the City's long term water supply will be evaluated using the following triggers:

- Ventura River - the previous year's water production from the Ventura River was less than 2,500 AF.
- Lake Casitas - the storage in the lake reaches the 127,000 AF Stage 2 level.
- Fox Canyon GMA Credits - the City's balance of Fox Canyon GMA groundwater credits falls below 10,000 AF.
- Other Groundwater Basins - conditions in the Mound and Santa Paula groundwater basins begin to deteriorate significantly.
- Water Demand - the water demand within the City reaches 27,500 AFY.

The triggers for a drought-proofing supplemental water supply, based on the condition of the Ventura River, Lake Casitas, the Fox Canyon GMA credits, and the groundwater basins, should be considered together. It is suggested that if any two of the first four triggers identified above are reached, then the decision making process for implementation of a supplemental water supply project should begin.

The water demand trigger for a long-term base-loaded supplemental water supply, the fifth trigger, should be considered independently of the drought-proofing triggers. Reaching the water demand trigger would also begin the decision making process for implementation of a supplemental water supply project regardless of the condition of the City's existing water supplies. The City Council's decision-making process to select either seawater desalination, importing SWP water or another alternative will focus on the actual circumstances at that future time.

### **8.3 Minimum Water Supply Available During Next Three Years**

The primary factor in limiting the City's existing water supplies is drought. In evaluating a three year worst-case water supply scenario, the City assumed that severe drought conditions (limited rain and above-average temperatures) would begin immediately and continue for three consecutive years (Table 8-2). Planned water sources for fiscal year 2011, reflecting capacity of current facilities will be used as an average/normal water year base for estimating purposes. Also, it was assumed that demand would not be reduced in response to the drought conditions. Available water supplies during the three year period were projected considering: 1) the current status of each existing source and 2) the past response of each existing source to similar drought conditions. Also, because of the complexities of the City's water sources, the specific numbers are only approximations.

**TABLE 8-2  
ESTIMATE OF MINIMUM SUPPLY FOR THE NEXT THREE YEARS**

Source	Supply (AF)		
	2012	2013	2014
Casitas Municipal Water District <sup>(a)</sup>	6,000	6,000	6,000
Mound Basin <sup>(b)</sup>	5,500	5,500	5,500
Oxnard Plain Basin <sup>(c)</sup>	4,100	4,100	4,100
Santa Paula Basin <sup>(d)</sup>	1,141	1,141	1,141
Ventura River (Foster Park) <sup>(e)</sup>	4,200	3,500	2,000
Recycled Water	700	700	700
<b>Total Supplies</b>	<b>21,641</b>	<b>20,941</b>	<b>19,441</b>
Groundwater Basin Reliability Supply <sup>(f)</sup>	29,200	29,200	29,200

**Notes:**

- (a) Estimated demand based on population growth within the Casitas service area served by City of Ventura water service area.
- (b) Average annual groundwater supply assumed reliable during dry years.
- (c) Average annual groundwater supply assumed reliable during dry years.
- (d) In multiple dry years, supply would be reduced to 1,141 AFY during Stage 2 reductions per 1996 Stipulated Judgment.
- (e) Supply reduced from 4,200 to 2,000 AFY during an extended drought.
- (f) Reliability supply only; not a firm supply available for new development.

## **8.4 Actions to Prepare For Catastrophic Interruption**

A catastrophic interruption constitutes a proclamation of a water shortage and could be any event (either natural or man-made) that causes a water shortage severe enough to classify as either a Stage III or Stage IV water supply shortage condition.

In order to prepare for catastrophic events, the City has prepared an Emergency Response Plan (ERP) in accordance with other state and federal regulations. The purpose of this plan is to design actions necessary to minimize the impacts of supply interruptions due to catastrophic events.

The Emergency Response Plan (ERP) includes the City of San Buenaventura water system's standardized response and recovery procedures to prevent, minimize, and mitigate injury and damage resulting from emergencies or disasters of man-made or natural origin such as an earthquake, extended power outage, fire, biological or chemical contamination, and explosion. The plan takes into account the various aspects of the City's Water System Protection Program pertaining to potential malevolent threats or actual terrorism. The information contained in the ERP is intended to guide staff and inform other emergency responding agencies and includes plans, procedures, lists, and identification of equipment, emergency contacts, etc.

In Addition, the City's 2011 Water Master Plan analyzes seven different operational outage scenarios and provides an analysis of system impacts as well as long-term system improvements required to mitigate these impacts.

## **8.5 Prohibitions, Penalties, and Consumption Reduction Methods**

At each of the five stages of action within the Water Shortage Contingency Plan, the City, the Water Department and City water customers each have certain actions they must undertake. Public agency actions involve increasing public awareness and education, adopting ordinances prohibiting water waste and establishing mandatory water conservation regulations, and periodically reviewing triggering levels. Water customer actions involve implementing water conservation measures and complying with water conservation ordinances. Significant measures of the five-stage water shortage plan include:

### **Stage 1: 0-10 Percent Reduction Goal (Voluntary)**

#### Public Agency Actions

- Monitor conservation levels and increase public awareness.
- Notify customers of shortage conditions and disseminate literature.
- Publish customer use goals.
- Identify Water Shortage Contingency Plan stages and the possible actions per stage.
- Distribute water conservation brochures, information, and conservation kits.
- Conduct exterior and interior water audits upon customer requests.
- Request voluntary water consumption reduction.
- Maintain tiered rate structure to promote water conservation.
- Establish/enforce water waste ordinance.
- Establish/enforce ordinance prohibiting watering from 9 A.M. to 6 P.M.

#### Water Customer Actions

- Monitor own meter for usage.
- Implement conservation measures to reduce usage.
- Comply with water waste ordinance.
- Comply with prohibited watering during 9 A.M. to 6 P.M.

### **Stage 2: 10-15 Percent Reduction Goal (Mandatory)**

#### Public Agency Actions (In addition to actions established in previous Stage)

- Initiate Mandatory Water Conservation Regulations of Ordinance No. 92-07.
- Enforce mandatory water consumption goals and allocations for all customers.
- Enact water rate surcharge for water consumption over customer allocation.
- Water in excess of allocation is billed at four times the City's highest water rate.

- For the third consecutive excessive bill, surcharge rate is ten times the City's highest water rate. Beyond a third billing period, restrictors placed on meters, at the customer's expense.
- Enactment of allocation adjustment and penalty review programs. Customers can apply for an allocation adjustment for the reasons specified in ordinance.
- Customers may appeal in writing for a waiver of penalties incurred due to a leak or break, incorrect allocation or hardship.

Water Customer Actions (In addition to actions established in previous Stage)

- Comply with mandatory water conservation regulations.
- All water customers requesting an increase in their water allocation must undergo a water audit and install water efficient plumbing fixtures for all fixtures at their business or residence.

**Stage 3: 15-20 Percent Reduction Goal (Mandatory)**

Public Agency Actions (In addition to actions established in previous Stage)

- Initiate Mandatory Water Conservation Regulations as an Ordinance.
- Establish and enforce mandatory water consumption goals and allocations for all customers.

Water Customer Actions (In addition to actions established in previous Stage)

- Comply with mandatory water conservation guidelines.

**Stage 4: 20-30 Percent Reduction Goal (Mandatory)**

Public Agency Actions (In addition to actions established in previous Stage)

- Initiate Mandatory Water Conservation Regulations as an Ordinance.
- Establish and enforce mandatory water consumption goals and allocations for all customers.

Water Customer Actions (In addition to actions established in previous Stage)

- Comply with mandatory water conservation guidelines.

**Stage 5: 30-50+ Percent Reduction Goal (Mandatory)**

Public Agency Actions (In addition to actions established in previous Stage)

- Initiate Mandatory Water Conservation Regulations as an Ordinance.
- Establish and enforce mandatory water consumption goals and allocations for all customers.
- All water use not required for health and safety is prohibited.

Water Customer Actions (In addition to actions established in previous Stage)

- Comply with mandatory water conservation regulations.
- Prohibition of all outside water use unless necessary for the preservation of health and safety and the public welfare.
- Watering with hand-held five gallon maximum bucket, filled at exterior hose bib or interior faucet (not by hose) shall be allowed at any time. This will assist in preserving vegetable gardens or fruit trees. Outdoor use of bath water, dishwater, and laundry water for irrigation purposes is encouraged to the extent this practice is allowed under local health and safety regulations.
- The filling, refilling or adding of water to swimming and/or wading pools is prohibited.
- The operation of any ornamental fountain or similar structure is prohibited.

The City has established the following customer classifications and the allocation method for each classification during a water shortage:

- Single Family -Hybrid of Per-capita Allocation and Percentage Reduction.
- Multi-Family -Hybrid of Per-capita Allocation and Percentage Reduction.
- Commercial -Percentage Reduction.
- Industrial -Percentage Reduction.
- Fire lines -No Reduction.
- Temporary -No Reduction.
- Municipal -Percentage Reduction.
- Schools -Percentage Reduction.
- Churches -Percentage Reduction.
- Unaccounted -No Reduction.
- New Demand -Per-capita Allocation.

The following priorities for use of available water, based on California Water Code Chapter 3 and community input were used in establishing consumption limits. In order of preference they are:

- Health and Safety - interior residential and fire fighting.
- Commercial, Industrial and Governmental Uses - maintain jobs and economic base.
- Permanent Crops - takes five to ten years to replace.
- Annual Crops - protect jobs.
- Existing Landscaping - especially trees and shrubs.
- New Demand - projects without permits when shortage declared.

Each customer will be notified of their classification and allotment by mail before the effective date of the Water Shortage Emergency. New customers and connections will be notified at the

time service commences. In a disaster, prior notice of allotment may not be possible; notice will be provided by other means. A customer has the option to appeal the Utilities Business Manager’s classification or allotment of their account. Appeals shall be processed as set forth in the established Mandatory Water Conservation Regulations.

In addition to the prohibitions above, the City also has a water waste ordinance. In April 1989, the City adopted Ordinance 89-6 prohibiting water waste (see Appendix F). The ordinance defined prohibited activities and the penalties to be imposed for violations. Table 8-3 below describes the penalties.

**TABLE 8-3  
PENALTIES AND CHARGES**

<b>Penalties or Charges</b>	<b>Stage When Penalty Takes Effect</b>
Water consumption over customer allocation is billed at four times the City’s highest water rate	Stage 2
For the third consecutive excessive bill, surcharge rate is ten times highest water Rate. Beyond a third billing period, restrictors are placed on meters at the customer’s expense.	Stage 2

Specific methods to evaluate effectiveness of water conservation programs to be employed by the City are:

- Metering of a Reclaimed Water Usage. This will determine how much has been used.
- Monitoring Production Quantities. In normal water supply conditions, production figures are recorded daily by automation. The production supervisor and the production lead worker monitor the accuracy of the monthly production totals.
- The totals are incorporated into the monthly water supply report to the State Department of Health Services by the treatment supervisor.
- During a Stage 1 or 2 water shortage, daily production figures are recorded. To verify that the reduction goal is being met, the weekly production and the target weekly production are forwarded to the Water Utility Manager and Water General Manager.
- Monthly reports are sent to the Water General Manager. If reduction goals are not met, the City Manager will notify the City Council so that corrective action can be taken.
- During a Stage 3 or 4 water shortage, the procedure listed above will be followed, with the addition of a daily production report to the Water Utility Manager.
- During a disaster shortage, production figures will be reported hourly to the Water Utility Manager, with the addition of a daily production report to the Water General Manager.
- Weekly reports will also be provided to the Water General Manager and City Manager as needed.
- Compiling annual statistics to track usage of customer groups to determine trends within those groups. This is currently being done through the water billing computer system. As stated above, a mufti-year examination will aid in reducing the impact of weather patterns as a variable.

- Evaluation of the impact of low-use plumbing fixtures in new construction or retrofitted units. This can be done by multiplying the average usage with and without such fixtures versus low-use fixtures by the number of units.
- Comparing irrigation meter readings. For City parks and other landscaped areas, meter readings can be compared and analyzed to determine the effectiveness of irrigation programs, or landscape materials.

**8.6 Revenue Impacts of Reduced Sales**

Consumption reduction will impact revenues by decreasing the amount of water sold to customers. Water shortages may also impact construction activities. A reduction in construction activities will reduce fees collected by the City such as water service connection fees, engineering services fees such as plan checking, and annexation fees.

As consumption decreases, some expenditures are expected to increase. Staff costs for community education, enforcement of ordinances, monitoring and evaluation of water use, drought planning, and dealing with customer questions and complaints are expected to rise. If construction is drastically reduced, staff may not be required for certain functions, but it is expected that the increased work load to deal with water shortage issues will more than offset the reduced work load for construction support. Operations and maintenance costs may also increase because of the need to identify and quickly repair all water losses. A shift to alternative sources would change pumping, purchase, and treatment costs as different water supplies incur different purchase, treatment, and distribution costs

A summary of impacts to revenues and expenses is provided in Table 8-4.

**TABLE 8-4  
REVENUE IMPACTS DURING SHORTAGE**

<b>Stage</b>	<b>Assumed Conservation</b>	<b>Approximate Revenue Reduction</b>	<b>Approximate Expense Reduction<sup>(a)</sup></b>
Stage 1	<10%	8%	>2%
Stage 2	10%	12%	2%
Stage 3	20%	15%	3%
Stage 4	30%	25%	5%
Stage 5	50%	40%	8%

Note:  
(a) Without decreasing capital program.  
Source: Analysis conducted as part of 2005 UWMP.

A reduction in water revenue could be mitigated substantially through deferral or avoidance of capital fund expenditures. This would meet short-term cash flow needs, although it should only be considered on a short-term basis. Rate adjustments could also be employed either solely or in conjunction with capital expenditure reductions. A summary of measures to overcome revenue and expenditure impacts is provided in Table 8-5.

**TABLE 8-5  
MEASURES TO OVERCOME REVENUE AND EXPENDITURE IMPACTS DURING  
SHORTAGE**

Measure	Summary of Effects
Use of Reserve Funds	Use of reserves may provide short-term rate stabilization, but require delays in capital expenditures and rebuilding of reserves after the water shortage.
Decrease Capital Expenditures	Delay major construction projects for facilities as well as upgrades and replacements.
Shift Water Sources to Less Costly Supplies if Possible	Reduce costs associated purchase, treatment, and distribution of water
Rate Increases	Increase revenue

### 8.7 Mechanism to Determine Reductions in Water Use

Certain aspects of water conservation can be readily monitored and evaluated. An example is metered reclaimed water. Other aspects such as public education are more difficult to measure in terms of effectiveness. Additionally, weather patterns make it more difficult to compare one year’s results with another.

When severe shortages occur and some degree of rationing is required, a program’s effectiveness can be judged directly by water billings. In these cases, targeted results must be met and even reluctant customers will, on the whole, meet the goals. Specific methods to evaluate effectiveness of water conservation programs to be employed by the City are:

- Metering of a Reclaimed Water Usage. This will determine how much has been used.
- Monitoring Production Quantities. In normal water supply conditions, production figures are recorded daily by automation. The production supervisor and the production lead worker monitor the accuracy of the monthly production totals. The totals are incorporated into the monthly water supply report to the State Department of Health Services by the treatment supervisor.

During a Stage 1 or 2 water shortage, daily production figures are recorded. To verify that the reduction goal is being met, the weekly production and the target weekly production are forwarded to the Water Utility Manager and the General Manager. Monthly reports are sent to the City Manager. If reduction goals are not met, the City Manager will notify the City Council so that corrective action can be taken.

During a Stage 3 or 4 water shortage, the procedure listed above will be followed, with the addition of a daily production report to the Water Utility Manager. During a disaster shortage, production figures will be reported hourly to the Water Utility Manager, with the addition of a daily production report to the General Manager. Weekly reports will also be provided to the City Manager.

- Compiling annual statistics to track usage of customer groups to determine trends within those groups. This is currently being done through the water billing computer system. As

stated above, a multi-year examination will aid in reducing the impact of weather patterns as a variable.

- Evaluation of the impact of low-use plumbing fixtures in new construction or retrofitted units. This can be done by multiplying the average usage with and without such fixtures versus low-use fixtures by the number of units.
- Comparing irrigation meter readings. For City parks and other landscaped areas, meter readings can be compared and analyzed to determine the effectiveness of irrigation programs, or landscape materials.

**ATTACHMENT B**

**USEPA WATER  
CONSERVATION MEASURES**



# APPENDIX A

## WATER CONSERVATION MEASURES

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This Appendix to the EPA Guidelines for Preparing Water Conservation Plans describes the water conservation measures that water utilities can use in designing water conservation programs. As part of their conservation plans, planners should consider, *at a minimum*, each of the measures specified in the Basic, Intermediate, or Advanced Guidelines, depending on which set of Guidelines apply to the water system.

The measures are organized into three general categories: Level 1, Level 2, and Level 3. Within each level are four subcategories that are used to organize a variety of specific conservation measures:

- Level 1 Measures
  - Universal metering
  - Water accounting and loss control
  - Costing and pricing
  - Information and education
- Level 2 Measures
  - Water-use audits
  - Retrofits
  - Pressure management
  - Landscape efficiency
- Level 3 Measures
  - Replacements and promotions
  - Reuse and recycling
  - Water-use regulation
  - Integrated resource management

This system of organizing the conservation measures recognizes that the measures considered can vary with the size and capability of the system. *Water systems are strongly encouraged to explore the fullest range of conservation measures practical, including measures beyond the minimum measures suggested in the Guidelines that they are following.* Many smaller and middle-sized utilities have been very successful in implementing a wide range of beneficial conservation programs.

What follows is a description of each of the twelve subcategories of measures. The Guidelines provide checklists that planners can use in reviewing measures. However, planners are encouraged to consider as many measures as practical given their capability and the conditions they seek to address. In some cases, planners may choose to consider and implement selected measures beyond those minimally recommended for consideration.

Although this list of conservation measures is relatively current and comprehensive, planners should not limit their analysis only to the measures mentioned here. Planners also should consider new technologies and approaches as they become available. Letters next to each category indicate whether the measures in that category are considered particularly useful in reducing average-day demand [A], maximum-day or peak demand [P], both [B]. Worksheets for some of the conservation measures are provided at the end of this Appendix.

## Level 1 Measures

### Universal Metering [B]

Measures	←————— Advanced Guidelines —————→		
	←————— Intermediate Guidelines —————→		
	← Basic Guidelines —————→		
Universal metering [B]	<ul style="list-style-type: none"> <li>▪ Source-water metering</li> <li>▪ Service-connection metering and reading</li> <li>▪ Meter public-use water</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fixed-interval meter reading</li> <li>▪ Meter-accuracy analysis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Test, calibrate, repair, and replace meters</li> </ul>

Metering is a very fundamental tool of water system management and conservation. Worksheet A-1 can be used by systems to assess their metering practices.

**Source-water metering.** Both the supplier and the customer benefit from metering. Source metering is essential for water accounting purposes.

**Service-connection metering.** Service-connection metering is needed to inform customers about how much water they are using; suppliers use metering data to more accurately track water usage and bill customers for their usage.

**Public-use water metering.** All water provided free of charge for public use should be metered and read at regular intervals. This will allow the utility to more accurately account for water. Lack of metering undermines loss control, costing and pricing, and other conservation measures.

**Fixed-interval meter reading.** A program of fixed-interval meter reading is essential to determine the amount of nonrevenue-producing water. Source meters and service connection meters should be read at the same relative time in order to facilitate accurate comparisons and analysis. Readings generally should occur at regular intervals, preferably monthly or bimonthly. Estimated bills should be kept at a minimum, subject to state and local regulations.

**Meter accuracy.** Water meters can be damaged and deteriorate with age, thus producing inaccurate readings. Inaccurate readings will give misleading information regarding water

usage, make leak detection difficult, and result in lost revenue for the system. All meters, especially older meters, should be tested for accuracy on a regular basis. The system also should determine that meters are appropriately sized. Meters that are too large for a customer’s level of use will tend to under-register water use.

**Meter testing, calibration, repair, and replacement.** After determining the accuracy of the metering system, the utility should provide a schedule of activities necessary to correct meter deficiencies. Meters should be recalibrated on a regular basis to ensure accurate water accounting and billing.

**Water Accounting and Loss Control [A]**

	←————— Advanced Guidelines —————→		
	←————— Intermediate Guidelines —————→		
Measures	← Basic Guidelines —————→		
Water accounting and loss control [A]	<ul style="list-style-type: none"> <li>▪ Account for water</li> <li>▪ Repair known leaks</li> </ul>	<ul style="list-style-type: none"> <li>▪ Analyze nonaccount water</li> <li>▪ Water system audit</li> <li>▪ Leak detection and repair strategy</li> <li>▪ Automated sensors/ telemetry</li> </ul>	<ul style="list-style-type: none"> <li>▪ Loss-prevention program</li> </ul>

In many respects, water conservation begins on the supply side. All water systems will benefit from a water accounting system that helps track water throughout the system and identify areas that may need attention, particularly large volumes of nonaccount water. Nonaccount water includes water that is *metered but not billed*, as well as *all unmetered* water. Unmetered water may be authorized for such utility purposes (such as operation and maintenance) and for certain public uses (such as fire hydrant maintenance). Unmetered water also includes unauthorized uses, including losses from accounting errors, malfunctioning distribution system controls, thefts, inaccurate meters, or leaks. Some unauthorized uses may be identifiable. When they are not, these unauthorized uses constitute *unaccounted-for water*.

Implementing a system of water accounting is a necessary first step in developing strategies for loss control. A system of water accounting is provided in Figure A-1. This system for tracking water begins with total water produced and ends with unaccounted-for water. Worksheet A-2 (which follows figure A-1) and Worksheet A-3 can assist water systems in developing a water accounting and loss control strategy.

**Account for water.** All water systems, even smaller systems, should implement a basic system of water accounting (as appears in Worksheet A-3). This accounting exercise provides a basis for a strategy to control losses over time.

**Repair known leaks.** The cost of water leakage can be measured in terms of the operating costs associated with water supply, treatment, and delivery; water lost produces no revenues for the utility. Repairing larger leaks can be costly, but it also can produce substantial savings in water and expenditures over the long run.

Water accounting is less accurate and useful when a system lacks source and connection metering. Although the system should plan to meter sources, unmetered source water can be estimated by multiplying the pumping rate by the time of operation based on electric meter readings.

**Analysis of nonaccount water.** Nonaccount water use should be analyzed to identify potential revenue-producing opportunities, as well as recoverable losses and leaks. Some utilities might consider charging for water previously given away for public use or stepping up efforts to reduce illegal connections and other forms of theft.

**System audit.** A system audit can provide information needed to make a more accurate analysis of nonaccount water.

**Leak detection and repair strategy.** Systems also should institute a comprehensive leak detection and repair strategy. This strategy may include regular on-site testing using computer-assisted leak detection equipment, a sonic leak-detection survey, or another acceptable method for detecting leaks along water distribution mains, valves, services, and meters. Divers can be used to inspect and clean storage tank interiors.

**Automated sensors/telemetry.** Water systems also consider using remote sensor and telemetry technologies for ongoing monitoring and analysis of source, transmission, and distribution facilities. Remote sensors and monitoring software can alert operators to leaks, fluctuations in pressure, problems with equipment integrity, and other concerns.

**Loss-prevention program.** This may include pipe inspection, cleaning, lining, and other maintenance efforts to improve the distribution system and prevent leaks and ruptures from occurring. Utilities might also consider methods for minimizing water used in routine water system maintenance procedures in accordance with other applicable standards.

**Costing and Pricing [B]**

	←————— Advanced Guidelines —————→		
	←———— Intermediate Guidelines —————→		
Measures	← Basic Guidelines —→		
Costing and pricing [B]	<ul style="list-style-type: none"> <li>▪ Cost-of-service accounting</li> <li>▪ User charges</li> <li>▪ Metered rates</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cost analysis</li> <li>▪ Nonpromotional rates</li> </ul>	<ul style="list-style-type: none"> <li>▪ Advanced pricing methods</li> </ul>

Costing and pricing are conservation strategies because they involve understanding the true value of water and conveying information about that value, through prices, to water customers. The use of user charges often is considered a necessary (but not always sufficient) part of a water conservation strategy. Many resources are available on how to account for costs and design water rates.

**Cost-of-service accounting.** Water systems should use cost-of-service accounting, consistent with generally accepted practices. Many resources are available for this purpose. Understanding and tracking system costs also is a capacity-development strategy for small systems.

**User charges.** Once costs are established, systems can develop more accurate user charges (or rate structures).

**Metered rates.** Metered rates should be used so that the customer's water bill corresponds to their water usage. For many systems, change in water rates must be approved by regulators or other oversight bodies. It is important for water systems to communicate with regulators about costs and the need for cost-based pricing.

**Cost analysis.** Systems should conduct a cost analysis to understand what types of usage drive system costs. For example, systems should analyze patterns of usage by season and class of service.

**Nonpromotional rates.** Systems also should consider whether their current rate structures promote water usage over conservation; nonpromotional rates should be implemented whenever possible in order to enhance the conservation signal of rates.

Systems seeking to encourage conservation through their rates should consider various issues: the allocation between fixed and variable charges, usage blocks and breakpoints, minimum bills and whether water is provided in the minimum bill, seasonal pricing options, and pricing by customer class.

Systems also should consider the effect of introducing a new rate structure on revenues. Worksheet A-4 is provided for this purpose. Conservation-oriented pricing requires planners to make certain assumptions (based on the available empirical evidence) about the elasticity of water demand, or the responsiveness of water usage to a change in price. Elasticity is measured by the ratio of a percentage change in quantity demanded to a percentage change in price. Changes in the rate structure should allow the system to achieve demand reduction goals recovering water system costs. In allocating costs, the impact of the rate structure on user demand and revenues for specific customer classes should be considered.

**Advanced pricing methods.** Advanced pricing methods generally allocate costs by customer class and/or type of water use. Advanced pricing might consider seasonal variations or other methods for pricing indoor and outdoor usage based on differing contributions to system peaks. The conservation orientation of the rate structure can be enhanced by considering the elasticity factors for different classes of water use. Marginal-cost pricing, which considers the value of water relative to the cost of the next increment of supply, can be considered as well. Systems also can consider special ratemaking provisions (such as cost-recovery or lost-revenue mechanisms). Potential revenue instability can be addressed with additional rate structure modifications (such as revenue-adjustment mechanisms).

Obviously, the pricing strategy must be consistent with overall system goals and approved by regulatory or other governing bodies.

**Information and Education [B]**

	←————— Advanced Guidelines —————→		
	←————— Intermediate Guidelines —————→		
Measures	← Basic Guidelines —→		
Information and education [B]	<ul style="list-style-type: none"> <li>▪ Understandable water bill</li> <li>▪ Information available</li> </ul>	<ul style="list-style-type: none"> <li>▪ Informative water bill</li> <li>▪ Water-bill inserts</li> <li>▪ School program</li> <li>▪ Public-education program</li> </ul>	<ul style="list-style-type: none"> <li>▪ Workshops</li> <li>▪ Advisory committee</li> </ul>

Information and education are critical to the success of any conservation program. Information and education measures can directly produce water savings, as when customers change their water-use habits. These savings can be difficult to estimate. Also, public education alone may not produce the same amount of sustained water savings as other, more direct approaches (such as leak repairs and retrofits).

But educational measures also can enhance the effectiveness of other conservation measures. For example, it is widely believed that information plays a role in how water consumers respond to changes in price. More generally, customers that are informed and involved are more likely to support the water system’s conservation planning goals. Worksheet A-5 is provided for systems to use in assessing their information and education programs.

**Understandable water bill.** Customers should be able to read and understand their water bills. An understandable water bill should identify volume of usage, rates and charges, and other relevant information.

**Information available.** Water systems should be prepared to provide information pamphlets to customers on request. Public information and education are important components of every water conservation plan. Consumers are often willing to participate in sound water management practices if provided with accurate information. Furthermore, providing information and educating the public may be the key to getting public support for a utility’s water conservation efforts. An information and education program should explain to water users all of the costs involved in supplying drinking water and demonstrate how water conservation practices will provide water users with long term savings.

**Informative water bill.** An informative water bill goes beyond the basic information used to calculate the bill based on usage and rates. Comparisons to previous bills and tips on water conservation can help consumers make informed choices about water use.

**Water bill inserts.** Systems can include inserts in their customers’ water bills that can provide information on water use and costs. Inserts also can be used to disseminate tips for home water conservation.

**School program.** Systems can provide information on water conservation and encourage the use of water conservation practices through a variety of school programs. Contacts through schools can help socialize young people about the value of water and conservation techniques, as well as help systems communicate with parents.

**Public education program.** Utilities can use a variety of methods to disseminate information and educate the public on water conservation. Outreach methods include speakers’ bureaus, operating booths at public events, printed and video materials, and coordination with civic organizations.

**Workshops.** Utilities can hold workshops for industries that might be able to contribute to water conservation efforts. These might include, for example, workshops for plumbers, plumbing fixture suppliers, and builders or for landscape and irrigation service providers.

**Advisory committee.** A water conservation advisory committee can involve the public in the conservation process; potential committee members include elected officials, local business people, interested citizens, agency representatives, and representatives of concerned local groups. The committee can provide feedback to the utility concerning its conservation plan and develop new material and ideas about public information and support for conservation in the community. Of course, to be meaningful, the utility must be receptive to ideas offered by the committee.

## Level 2 Measures

### Water-Use Audits [B]

	←————— Advanced Guidelines —————→	
	←———— Intermediate Guidelines —————→	
Measures	← Basic Guidelines —————→	
Water-use audits [B]	<ul style="list-style-type: none"> <li>▪ Audits of large-volume users</li> <li>▪ Large-landscape audits</li> </ul>	<ul style="list-style-type: none"> <li>▪ Selective end-use audits</li> </ul>

Water-use or end-use audits can provide water systems and their customers with invaluable information about how water is used and how usage might be reduced through specific conservation strategies.

**Audits of large-volume users.** Utilities can facilitate water audits for large-volume users, both commercial and industrial. Water audits should begin by identifying the categories of water use for the large-volume user. These may include process, sanitary, domestic, heating, cooling, outdoor, and other water uses. Second, a water audit should identify areas in which overall water use efficiency can be improved through alternative technologies or practices.

**Large-landscape audits.** Water audits can be used for outdoor usage, as well as for indoor processes. Audits of irrigation practices can provide large-volume commercial, industrial, and public users with information about usage and usage-reduction techniques. These audits

can be used in conjunction with irrigation submetering and other landscaping efficiency practices.

**Selective end-use audits.** Water audits can be widened to include selective end-use audits by customer class, focusing on typical water-use practices within each class. An audit program can be selective in terms of targeting customer groups that have particular needs or for which water conservation could be particularly beneficial. Audits targeted to older housing, for example, can be particularly beneficial in terms of identifying and fixing plumbing leaks.

End-use audits also can be tailored to the usage practices within user groups. For example, residential water audits may focus on plumbing fixtures, lawn and garden water practices, and customer behavior. Residential water audits can be used to make immediate repairs and retrofits. Worksheet A-6 summarizes the components of a residential water audit. All water audits should include a written report to the customer that includes specific ideas for conservation. Water audits can be planned and implemented in conjunction with electric power companies or others interested in promoting conservation practices.

**Retrofits [A]**

	←————— Advanced Guidelines —————→ ←————— Intermediate Guidelines —————→ ← Basic Guidelines —————→
Measures	
Retrofits [A]	<ul style="list-style-type: none"> <li style="display: inline-block; width: 45%; vertical-align: top;">▪ Retrofit kits available</li> <li style="display: inline-block; width: 45%; vertical-align: top;">▪ Distribution of retrofit kits</li> <li style="display: inline-block; width: 45%; vertical-align: top;">▪ Targeted programs</li> </ul>

Water systems can promote conservation through a retrofit program. Retrofitting involves making an improvement to an existing fixture or appliance (versus replacement) in order to increase water-use efficiency. Retrofit programs usually target plumbing fixtures.

**Retrofit kits available.** A basic retrofit kit may include low-flow faucet aerators, low-flow showerheads, leak detection tablets, and replacement flapper valves. Retrofit kits may be made available free or at cost.

Calculating the savings from a retrofit program requires planners to make a number of assumptions about water use and savings. Some of the assumptions used in retrofitting are:<sup>1</sup>

- ❑ Toilets (4-6 flushes per person per day)
- ❑ Showerheads (5-15 shower-use minutes per person per day)
- ❑ Bathroom Faucets (.5-3 faucet-use minutes per person per day)
- ❑ Kitchen Faucets (.5-5 faucet-use minutes per person per day)

<sup>1</sup> Duane D. Baumann, John J. Boland, and W. Michael Hanemann, *Urban Water Demand Management and Planning* ( New York: McGraw Hill, 1998): 254.

Many useful textbooks and manuals are available to help planners estimate typical water use and potential savings from retrofits (See Appendixes B and D.)

**Distribution of retrofit kits.** Water systems can actively distribute retrofit kits directly or through community organizations. Retrofit kits also can be distributed in conjunction with audit programs.

**Targeted programs.** Utilities might institute targeted programs for different customer classes (residential, commercial, industrial, public buildings, and so on). Retrofits of industrial premises can include facilities used by the public and employees, as well as facilities used for production purposes. A program to retrofit low-income housing units may conserve considerable water in older residential housing units with inefficient plumbing fixtures. Targeted programs also could be designed in cooperation with community organizations. An active retrofit program might be part of a residential water-use audit program. It is important that planners ensure that retrofit programs conform to local plumbing codes and ordinances.

**Pressure Management [A]**

	←————— Advanced Guidelines —————→	
	←———— Intermediate Guidelines —————→	
Measures	← Basic Guidelines —————→	
Pressure management [A]	▪ Systemwide pressure management	▪ Selective use of pressure-reducing valves

Reducing excessive pressures in the distribution system can save a significant quantity of water. Reducing water pressure can decrease leakage, amount of flow through open faucets, and stresses on pipes and joints which may result in leaks. Lower water pressure may also decrease system deterioration, reducing the need for repairs and extending the life of existing facilities. Furthermore, lower pressures can help reduce wear on end-use fixtures and appliances.

**Systemwide pressure management.** For residential areas, pressures exceeding 80 psi should be assessed for reduction. Pressure management and reduction strategies must be consistent with state and local regulations and standards, as well as take into account system conditions and needs. Obviously, reductions in pressure should not compromise the integrity of the water system or service quality for customers.

**Pressure-reducing valves.** A more aggressive plan may include the purchase and installation of pressure-reducing valves in street mains, as well as individual buildings. Utilities might also insert flow restrictors on services at the meter. Restrictors can be sized to allow for service length, system pressure, and site elevation. Utilities can consider providing technical assistance to customers to address their pressure problems and install pressure-reducing valves to lower the customers’ water pressure. This may be especially beneficial for large-use customers.

**Landscape Efficiency [P]**

	←————— Advanced Guidelines —————→	
	←———— Intermediate Guidelines —————→	
Measures	← Basic Guidelines —————→	
Landscape efficiency [P]	<ul style="list-style-type: none"> <li>▪ Promotion of landscape efficiency</li> <li>▪ Selective irrigation submetering</li> </ul>	<ul style="list-style-type: none"> <li>▪ Landscape planning and renovation</li> <li>▪ Irrigation management</li> </ul>

Outdoor water usage drives maximum-day demand, which in turn drives requirements for transmission and treatment facilities. Reducing outdoor usage can thus be a very effective conservation strategy. Outdoor water use can be reduced through efficiency-oriented landscaping principles.

**Promotion of landscape efficiency.** Utilities can promote the development of water conserving principles into the planning, development and management of new landscape projects such as public parks, building grounds, and golf courses. Utilities can also promote low water-use landscaping by residential and nonresidential customers, especially those with large properties. Utilities can cooperate with local nurseries to ensure the availability of water conserving plants.

Water systems may promote Xeriscaping™, an efficiency-oriented approach to landscaping that encompasses seven essential principles:

- Planning and design
- Limited turf areas
- Efficient irrigation
- Soil improvement
- Mulching
- Use of lower water demand plants
- Appropriate maintenance

**Selective irrigation submetering.** Selective submetering for irrigation water can be used to improve irrigation management, as well as to introduce irrigation pricing.

**Landscape planning and renovation.** Existing landscapes can be renovated to incorporate water-conserving practices. Public parks, for example, could be managed to incorporate water-efficient landscaping and reduce or eliminate irrigation. Utilities can work with commercial and industrial customers to plan and renovate landscaping in accordance with water conserving practices.

**Irrigation management.** Irrigation management systems, using metering, timing, and water-sensing devices, also can be promoted by the water utility for large-volume customers.

## Level 3 Measures

### Replacements and Promotions [B]

	<p>←————— Advanced Guidelines —————→</p> <p>←———— Intermediate Guidelines —————→</p> <p>← Basic Guidelines —————→</p>
Measures	
Replacements and promotions [B]	<ul style="list-style-type: none"> <li>▪ Rebates and incentives [nonresidential]</li> <li>▪ Rebates and incentives [residential]</li> <li>▪ Promotion of new technologies</li> </ul>

**Rebates and incentives.** In order to accelerate the replacements of older fixtures, utilities can offer rebates and other incentives. Utilities can install water-efficient fixtures by providing fixtures at no cost, giving a rebate for consumer purchased fixtures, or arranging suppliers to provide fixtures at a reduced price. Utilities can design incentive rebate programs that are targeted to the nonresidential and residential sectors, and to indoor and outdoor uses.

The feasibility and effectiveness of replacements may depend on state and local plumbing codes. A program to accelerate replacements, coupled with high-efficiency standards, can yield substantial water savings.

**Promotion of new technologies.** Utilities also can get involved with promoting new technologies by manufacturers and distributors of fixtures and appliances. Demonstrations and pilot programs, and even contests, can be used to introduce and promote new products (such as high-efficiency washing machines).

### Reuse and Recycling [B]

	<p>←————— Advanced Guidelines —————→</p> <p>←———— Intermediate Guidelines —————→</p> <p>← Basic Guidelines —————→</p>
Measures	
Reuse and recycling [B]	<ul style="list-style-type: none"> <li>▪ Industrial applications</li> <li>▪ Large-volume irrigation applications</li> <li>▪ Selective residential applications</li> </ul>

**Industrial applications.** An alternative water source for some systems is “graywater,” or treated wastewater for nonpotable water uses. Water reuse and recycling practices reduce production demands on the water system. Water utilities should work with their nonresidential customers to identify potential areas for reuse or recycling. Some industries can substantially reduce water demand through water reuse (or multiple use) in manufacturing processes. Recycled wastewater can be used for some industrial purposes, agricultural purposes, groundwater recharge, and direct reuse.

**Large-volume irrigation applications.** Reuse and recycling can be encouraged for large-volume irrigation.

**Selective residential applications.** In some areas, reuse and recycling can be used in residential applications. Water systems will need to check with local plumbing codes and ordinances for possible conditions and restrictions.

**Water-Use Regulation [B]**

	←————— Advanced Guidelines —————→ ←————— Intermediate Guidelines —————→ ← Basic Guidelines —————→
Measures	
Water-use regulation [B]	<ul style="list-style-type: none"> <li>▪ Water-use standards and regulations</li> <li>▪ Requirements for new developments</li> </ul>

**Water-use standards and regulations.** Regulations should be in place to manage water use during droughts or other water-supply emergencies. In some cases, utilities may find it desirable to extend water-use regulations to promote conservation during nonemergency situations. Examples of water-use regulations are:

- Restrictions on nonessential uses, such as lawn watering, car washing, filling swimming pools, washing sidewalks, and irrigating golf courses.
- Restrictions on commercial car washes, nurseries, hotels, and restaurants.
- Standards for water-using fixtures and appliances (in addition to the federal efficiency standards, which can be found at the end of this Appendix).
- Bans or restrictions on once-through cooling.
- Bans on non-recirculating car washes, laundries, and decorative fountains.
- Bans on certain types of water use or practice.

**Requirements for new developments.** Another type of regulation is to impose standards on new developments with regard to landscaping, drainage, and irrigation practices.

Many water systems, including privately owned systems, lack authority to implement this measure. Systems that have such authority must exercise it carefully. In general, restrictions on water use should be justified by the system’s circumstances and should not unduly compromise the customer’s rights or quality of service.

**Integrated Resource Management [B]**

Measures	<p style="text-align: center;">←————— Advanced Guidelines —————→</p> <p style="text-align: center;">←———— Intermediate Guidelines —————→</p> <p style="text-align: center;">← Basic Guidelines —————→</p>
Integrated resource management [B]	<ul style="list-style-type: none"> <li>▪ Supply-side technologies</li> <li>▪ Demand-side technologies</li> </ul>

**Supply-side technologies.** The idea of integrated resource management is that water often is used jointly with other resources. Systems following the Advanced Guidelines might have opportunities to consider and implement measures that can accomplish integrated resource management, where water conservation is jointly accomplished with the conservation of other resources. On the supply-side, the utility can institute operating practices (including various automation methods, strategic use of storage, and other practices) that achieve energy, chemical, and water savings. Source-water protection strategies, including land-use management methods, can be used to conserve water resources and avoid costly new supplies. Water and wastewater utilities can jointly plan and implement conservation programs to realize savings and share in the benefits.

**Demand-side technologies.** Integrative practices also can be accomplished on the demand side. Water and energy utilities can conduct comprehensive end-use audits and jointly promote conservation practices by end-users. Large-volume users can work with the utility to make adjustments to processes that reduce water and energy usage and wastewater flows, while saving other resources as well. Utilities that provide wholesale water can work with wholesale customers to design a water conservation program that will be mutually beneficial.

# Worksheet A-1: Metering

## A. BASIC GUIDELINES

### Source metering

What percentage of source withdrawals is metered? \_\_\_\_\_

### Connection metering

Percent of connections metered by customer class: \_\_\_\_\_ Percentage of meters that are outdoors: \_\_\_\_\_

Residential	_____ %	_____ %
Industrial	_____ %	_____ %
Commercial	_____ %	_____ %
Public	_____ %	_____ %
Other	_____ %	_____ %

<u>Number of meters needed:</u>	<u>Estimated cost/meter</u>	<u>Estimated total cost</u>
Residential _____	_____	_____
Industrial _____	_____	_____
Commercial _____	_____	_____
Public _____	_____	_____
Other _____	_____	_____

## B. INTERMEDIATE GUIDELINES [Basic Guidelines above plus the following]

<u>Frequency of meter reading</u>	<u>Billing frequency</u>	<u>Estimated bills/year</u>
Residential _____	_____	_____
Industrial _____	_____	_____
Commercial _____	_____	_____
Public _____	_____	_____
Other _____	_____	_____

Are authorized uses of nonaccount water metered? \_\_\_\_\_

Schedule for testing source water meters: \_\_\_\_\_

Schedule for testing connection meters: \_\_\_\_\_

Are meters correctly sized? \_\_\_\_\_

## C. ADVANCED GUIDELINES [Basic and Intermediate Guidelines above plus the following]

Describe the systems' program to test, calibrate, repair, and replace meters (including schedules): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

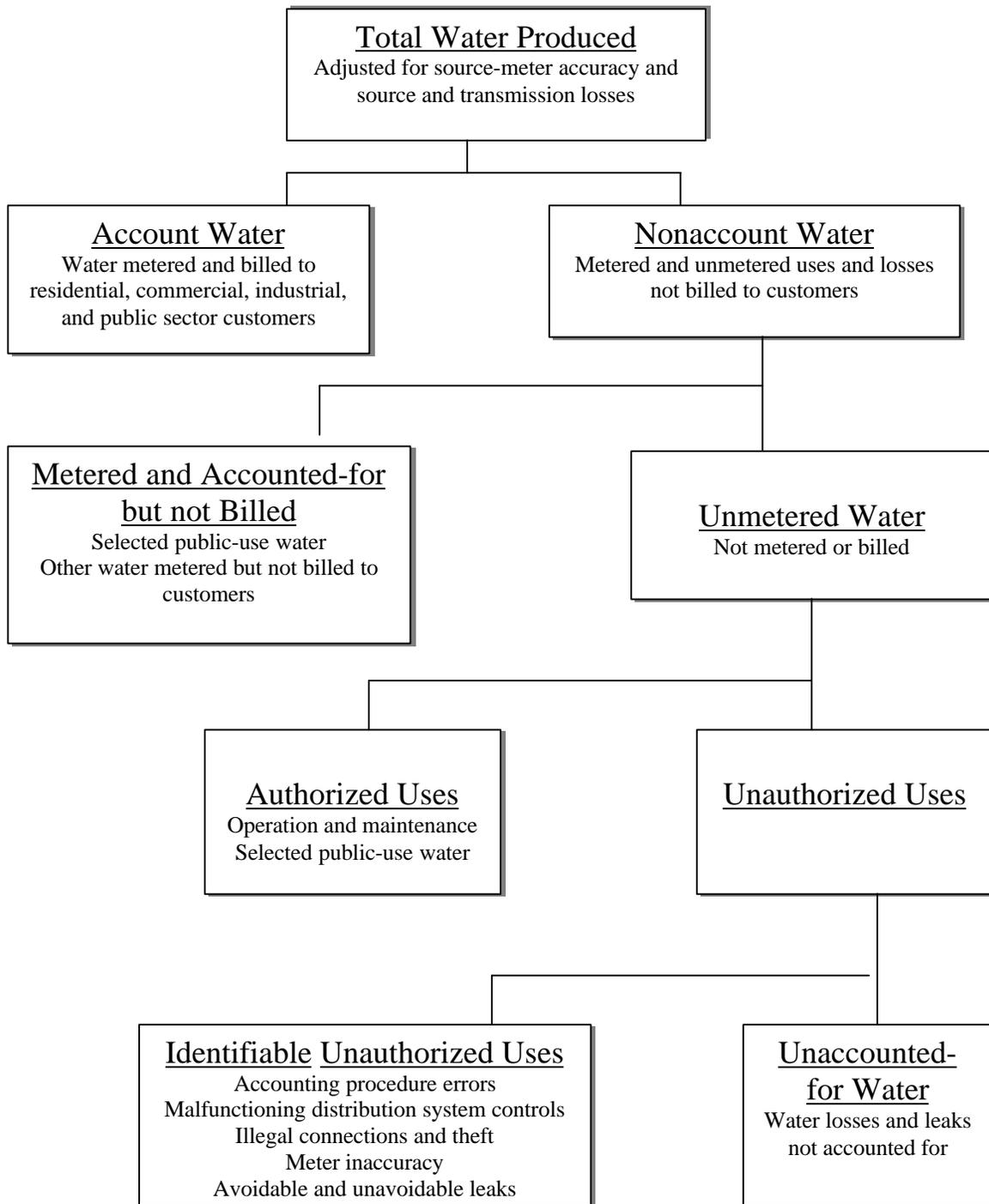


Figure A-1. Water Accounting System

## Worksheet A-2: Water Accounting and Loss Control

Line	Item	Volume (gallons)		% of Amount in Line 1
<b>1</b>	<b>Total Source Withdrawals and Purchases</b>			100%
2	<i>Adjustments to source water supply [a]</i>			
2A	Adjustment for source meter error (+ or -)			
2B	Adjustment for change in reservoir or tank storage (+ or -)			
2C	Adjustment for transmission line losses (-) [a]			
2D	Adjustments for other source contributions or losses (+ or -) [a]			
3	Total adjustments to source water (add lines 2A through 2D))			
<b>4</b>	<b>Adjusted Source Water (subtract line 3 from line 1)</b>			%
5	<i>Metered Water Sales</i>			
5A	Metered residential sales			
5B	Metered commercial sales			
5C	Metered industrial sales			
5D	Metered public sales			
5E	Other metered sales			
6	Total metered sales (add lines 5A through 5D)			
7	Adjustment for meter reading lag time (+ or -)			
8	Adjustment for meter errors (+ or -) [a]			
9	Adjusted total meter sales (add lines 6 through 8)			
<b>10</b>	<b>Nonaccount Water (subtract line 9 from line 4)</b>			%
11	<i>Metered and accounted-for but not billed</i>			
11A	Public-use water metered but not billed			
11B	Other water metered but not billed			
12	<i>Authorized unmetered water: operation and maintenance</i>			
12A	Main flushing			
12B	Process water at treatment plant			
12C	Water quality and other testing			
13	<i>Authorized unmetered water: public use</i>			
13A	Storm drain flushing			
13B	Sewer cleaning			
13C	Street cleaning			
13D	Landscaping in large public areas			
13E	Firefighting, training, and related maintenance			
14	<i>Other authorized unmetered use</i>			
14A	Swimming pools			
14B	Construction sites			
14C	Other unmetered uses			
15	Total authorized unmetered water (add lines 11A through 14C)			
<b>16</b>	<b>Total Unauthorized Losses (subtract line 15 from line 10)</b>			%
17	<i>Identifiable water losses and leaks</i>			
17A	Accounting procedure errors [a]			
17B	Malfunctioning distribution system controls			
17C	Illegal connections and theft			
17D	Meter inaccuracy			
17E	Unavoidable water leaks			
17F	Avoidable water leaks			
18	Total identifiable water losses and leaks (add lines 17A through 17F)			
<b>19</b>	<b>Unaccounted-For Water (subtract line 18 from line 16)</b>			%

[a] Methodology subject to industry and regulatory standards.

## Worksheet A-3: Strategies for Reducing Water Losses

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### **A. TRANSMISSION LOSSES**

---

Describe strategy for reducing transmission line losses: \_\_\_\_\_

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---

---

Estimated annual water savings: \_\_\_\_\_

### **B. NONACCOUNT WATER**

---

Describe strategy for reducing authorized unmetered uses: \_\_\_\_\_

---

---

---

Estimated annual water savings: \_\_\_\_\_

### **C. LOSSES AND LEAKS**

---

Describe strategy for reducing identifiable leaks: \_\_\_\_\_

---

---

---

Estimated annual water savings: \_\_\_\_\_

### **D. UNACCOUNTED-FOR WATER**

---

Describe strategy for reducing unaccounted-for water: \_\_\_\_\_

---

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Estimated annual water savings: \_\_\_\_\_

## Worksheet A-4: Evaluating Effects of Water Rate Changes

Line	Item	Value
1	Current price per gallon	\$
2	Current revenue-producing gallons (or cubic feet)	gallons
3	Current annual revenues (line 1 multiplied by line 2)	\$
4	Conservation goal (reduction in water use)	gallons
5	Conservation goal as percentage of current annual revenue-producing gallons (line 4 divided by line 2)	%
6	Estimate price elasticity of demand (by customer class and/or type of use if applicable)	%
7	Percentage change in price needed to induce conservation (line 5 divided by line 6)	%
8	Calculate revised price level (line 1 multiplied by (1.00 plus line 7))	\$
9	Revised annual water usage (line 1 less line 4)	gallons
10	Revised revenues (line 8 multiplied by line 9)	\$
11	Annualized fixed costs	\$
12	Annual variable costs for revised water usage	\$
13	Revised revenue requirements	\$
14	Net revenue effect (line 10 less line 13)	\$

Note: Prepare for each customer class to the extent feasible.

## Worksheet A-5: Checklist for Information and Education

<b>BASIC GUIDELINES</b>	<input checked="" type="checkbox"/>
<b>Understandable water bill</b>	
Understandable information about water rates and usage	<input type="checkbox"/>
<b>Information available</b>	
Pamphlet on basic home water conservation practices	<input type="checkbox"/>
Pamphlet on plumbing retrofits and replacements	<input type="checkbox"/>
Pamphlet on summer lawn watering and conservation landscaping	<input type="checkbox"/>
<b>INTERMEDIATE GUIDELINES</b> [Basic Guidelines above plus the following]	<input checked="" type="checkbox"/>
<b>Informative water bill</b>	
Compare to past usage (previous month, same period previous year)	<input type="checkbox"/>
Flag unusually high recorded uses and notify customers	<input type="checkbox"/>
Information tailored to customer class	<input type="checkbox"/>
<b>Water-bill inserts</b>	
Information on the cost and value of water	<input type="checkbox"/>
Basic water conservation tips	<input type="checkbox"/>
Information on conservation programs	<input type="checkbox"/>
<b>School program</b>	
Visit classrooms	<input type="checkbox"/>
Distribute curriculum materials, such as worksheets and coloring books	<input type="checkbox"/>
Show short information films or slide shows	<input type="checkbox"/>
Field trips to water system facilities	<input type="checkbox"/>
Contests and recognition for posters, ideas, etc.	<input type="checkbox"/>
<b>Public-education program</b>	
Press releases, public space advertising, and public service announcements (various media)	<input type="checkbox"/>
Conservation information centers and mobile information booths	<input type="checkbox"/>
Speakers bureau, films, and slide shows for community organizations	<input type="checkbox"/>
Coordination with civic and professional organization resources	<input type="checkbox"/>
Special events, such as water conservation fairs	<input type="checkbox"/>
Displays at home shows, garden shows, fairs, libraries, and town halls	<input type="checkbox"/>
Cooperation with retail plumbing to promote conservation	<input type="checkbox"/>
Recognize conserving businesses and industries	<input type="checkbox"/>
<b>ADVANCED GUIDELINES</b> [Basic and Intermediate Guidelines above plus the following]	<input checked="" type="checkbox"/>
<b>Workshops</b>	
Workshops for plumbers, plumbing fixture suppliers, and builders	<input type="checkbox"/>
Workshops for landscape and irrigation service providers	<input type="checkbox"/>
<b>Advisory committee</b>	
Creation of a public advisory committee	<input type="checkbox"/>

## Worksheet A-6: Checklist for a Residential Water Audit

<b>Service Meter</b>	<input checked="" type="checkbox"/>
Calibration/flow test	<input type="checkbox"/>
Leak test	<input type="checkbox"/>
Report findings to maintenance personnel	<input type="checkbox"/>
<b>Kitchen</b>	<input checked="" type="checkbox"/>
Check faucet flow rate	<input type="checkbox"/>
Offer to install aerator or flow restrictor	<input type="checkbox"/>
Check for drips and leaks	<input type="checkbox"/>
<b>Bath</b>	<input checked="" type="checkbox"/>
Shower	
Check showerhead flow rate	<input type="checkbox"/>
Offer to install low-flow showerhead or flow restrictor	<input type="checkbox"/>
Check for drips and leaks	<input type="checkbox"/>
Sinks	
Check faucet flow rate	<input type="checkbox"/>
Offer to install aerator or flow restrictor	<input type="checkbox"/>
Check for drips and leaks	<input type="checkbox"/>
Toilets	
Check for leaks (dye test)	<input type="checkbox"/>
Clean or replace flapper	<input type="checkbox"/>
Check the adjustment of the float arm	<input type="checkbox"/>
Offer to install retrofit devices	<input type="checkbox"/>
Provide information on available rebates	<input type="checkbox"/>
<b>Outside Water Use (Irrigation Season)</b>	<input checked="" type="checkbox"/>
Measure the flow rate of sprinklers	<input type="checkbox"/>
Check for leaks in the sprinkler, hose, or sprinkler system	<input type="checkbox"/>
Check the position of sprinklers	<input type="checkbox"/>
Instruct homeowner on efficient water techniques	<input type="checkbox"/>
Recommend a watering schedule based on:	<input type="checkbox"/>
▪ Any water restrictions imposed by local government	<input type="checkbox"/>
▪ Best time of day for watering	<input type="checkbox"/>
▪ Frequency of watering	<input type="checkbox"/>
▪ Length of time for watering	<input type="checkbox"/>
Provide information about water-efficient landscaping practices	<input type="checkbox"/>

Source: Adapted from American Water Works Association, Pacific Northwest Section, *Water Conservation Guidebook for Small and Medium-Sized Utilities* (August 1993). Appendix B.

**ATTACHMENT C**

**POTENTIAL METHODS FOR  
CALCULATION ANALYST II**



## Potential Methods for Calculating Allocation

Four allocation programs are currently being proposed as potential methods for the calculations of allocation.

1. Two Year History with Exemption

Customer allocations will be derived from the previous two year history of water usage. The customer will be given a winter and summer allocation to account for the variance in weather. The winter allocation will be derived from usage from Nov. 1<sup>st</sup> to April 30<sup>th</sup> and the summer allocation from May 1<sup>st</sup> to October 31<sup>st</sup>. The final allocation will be set at a percent reduction corresponding to the demand reduction goal imposed. Those customers with a bimonthly water usage average of 8 HCF (hundred cubic feet) or less will be exempt and will not be impacted by the allocation program

2. Two Year History without Exemption

Customer allocations will be derived from the previous two year history of water usage. The customer will be given a winter and summer allocation to account for the variance in weather. The winter allocation will be derived from usage from Nov. 1<sup>st</sup> to April 30<sup>th</sup> and the summer allocation from May 1<sup>st</sup> to October 31<sup>st</sup>. The final allocation will be set at a percent reduction corresponding to the demand reduction goal imposed. No customers will be exempt from the program regardless of their bimonthly water usage.

3. Average Winter Consumption with Exemption

Customer allocations will be based on the most recent average winter consumption (February – May of 2014). The final allocation will be set at a percent reduction corresponding to the demand reduction goal imposed. Those customers with a bimonthly water usage average of 8 HCF (hundred cubic feet) or less will be exempt and will not be impacted by the allocation program.

4. Average Winter Consumption without Exemption

Customer allocations will be based on the most recent average winter consumption (February – May of 2014). The final allocation will be set at a percent reduction corresponding to the demand reduction goal imposed. No customers will be exempt regardless of their bimonthly water usage.