



# 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 Maily, 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**

**WEDNESDAY, OCTOBER 22, 2014, 6:00 P.M.**

**VENTURA WATER MAINTENANCE YARD, 336 SANJON ROAD, VENTURA**

### **ROLL CALL**

### **COMMITTEE ITEMS**

**1. APPROVAL OF MINUTES, SPECIAL MEETING ON October 8, 2014**

Staff: Sylvia Lopez, Administrative Secretary

Recommendation: Approve October 8, 2104 meeting minutes.

**2. EX PARTE COMMUNICATION**

Staff: Shana Epstein, Ventura Water General Manager

Recommendation: Receive communication.

**3. TASK FORCE MEETING DATES ADDED**

Staff: Shana Epstein, Ventura Water General Manager

Recommendation: Approve two additional Task Force special meeting dates, Wednesday, November 19, 2014 and Wednesday, December 3, 2014 to be held starting at 6:00 p.m., at the Ventura Water Maintenance Yard, 336 Sanjon Road, Ventura.

**4. WATER SHORTAGE CONTINGENCY PLAN REVISIONS**

Staff: Shana Epstein, General Manager

Recommendation: Continue to make edits to the Water Shortage Contingency Plan starting at Section 1.7, incorporating policy recommendations from previous held workshop.

**5. REVIEW OF EXISTING REBATE AND INCENTIVE PROGRAMS IN TRI-COUNTY REGION**

Staff: Jill Sarick, Environmental Services Specialist

Recommendation: Receive and file report.

**6. 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.)

**7. ADJOURNMENT – NEXT MEETING WEDNESDAY, NOVEMBER 5, 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, October 16, 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, October 20, 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  
October 8, 2014 Meeting  
October 22, 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  
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Don Mills, Task Force Member  
Ed Summers, Task Force Member  
Diane Underhill, Task Force Member

Shana Epstein, Ventura Water General Manager

**OCTOBER 8, 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 Suzanne McCombs, Members Edward McCombs, Bryan Bondy, Ted Cook, Rob Corley, Douglas Hahn, Robert McCord, Marty Melvin, Don Mills, Ed Summers and Diane Underhill.

Absent: Diane deMaily and Don Jensen.

### TASK FORCE ITEMS

#### **1. APPROVAL OF MINUTES, SPECIAL MEETING ON SEPTEMBER 23, 2014**

Recommendation: Approve SEPTEMBER 23, 2014 meeting minutes.

Task Force Member Edward McCombs moved to approve the amended recommendation to include the Water Shortage Contingency Plan Workshop Summary from Water Shortage Task Force – Sept. 23, 2014 Meeting. Task Force Member Diane Underhill seconded. The vote was as follows:

AYES: Suzanne McCombs, Edward McCombs, Bryan Bondy, Ted Cook, Rob Corley, Douglas Hahn, Don Mills, Ed Summers and Diane Underhill.

NOES: None.

ABSTAIN: Robert McCord and Marty Melvin.

Chair Suzanne McCombs declared the motion carried.

**2. MEASURING EDUCATIONAL SUCCESS**

Recommendation: Receive communication.

Speaker(s): None.

Staff: Shana Epstein, General Manager.

Member(s) of the public: None.

**3. WATER SHORTAGE CONTINGENCY PLAN WORKSHOP SUMMARY**

Recommendation: Reviewed majority of the report, continue discussion on this item at next meeting scheduled on October 22, 2014.

Speaker(s): None.

Staff: Karen Waln, Management Analyst.

Member(s) of the public: Roberta Scott, Daniel Cormode, and Tim Farrell.

**4. REVIEW OF EXISTING REBATE AND INCENTIVE PROGRAMS IN TRI-COUNTY REGION**

Recommendation: Held this item over to next meeting on October 22, 2014.

Speaker(s):

Staff: Shana Epstein, General Manager.

Member(s) of the public:

**5. PUBLIC COMMENT**

Members of the public: Debra Barringer, and Roberta Scott.

**6. ADJOURNMENT**

The meeting was adjourned 9:15pm. The next meeting, Wednesday, October 22, 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 – [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 October 2, 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.

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, October 6, 2014 at 5:00 p.m. will enable the City to make reasonable arrangements for accessibility to this meeting.

Agenda Item Number 2  
Ex Parte Communication  
October 22, 2014

No Written Report for this Item

Agenda Item Number 3  
Task Force Meeting Dates Added  
October 22, 2014

No Written Report for this Item

Agenda Item Number 4  
Water Shortage Contingency  
Plan Revisions  
October 22, 2014



# ADMINISTRATIVE REPORT

Date: October 10, 2014

Agenda Item No: 4

Meeting Date: October 22, 2014

**To: WATER SHORTAGE TASK FORCE**

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

**Subject: WATER SHORTAGE CONTINGENCY PLAN REVISIONS**

## **RECOMMENDATION**

Continue to make edits to the Water Shortage Contingency Plan starting at Section 1.7, incorporating policy recommendations from previous held workshop.

## **DISCUSSION**

At a previous Task Force meeting, members participated in a 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. A summary from the workshop is attached (see Attachment A).

Based on these policy recommendations, the Task Force members began editing the existing Water Shortage Contingency Plan (see Attachment B). Task Force members are asked to continue making revisions to the plan starting at Section 1.7, incorporating policy recommendations from the workshop.

Prepared by Karen Waln, Management Analyst II

For

A handwritten signature in blue ink, appearing to read "Shana Epstein", written over a horizontal line.

Shana Epstein  
Ventura Water General Manager

**ATTACHMENT A**

**WATER SHORTAGE CONTINGENCY  
PLAN WORKSHOP SUMMARY FROM  
WATER SHORTAGE TASK FORCE –  
SEPTEMBER 23, 2014 MEETING**

## Water Shortage Contingency Plan Workshop Summary from Water Shortage Task Force - Sept. 23, 2014 Meeting

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

- Current “Rationing and Reduction Goals” in the current Water Shortage Contingency Plan needs to be revised
- Need to redefine triggers using the City’s annual Comprehensive Water Resources Report to guide decision making.
- Triggers should not depend on multiple dry years, since waiting for the 2<sup>nd</sup> or 3<sup>rd</sup> dry year might be too late.
- Triggers should take into account water quantity, quality and reclaimed water availability
- Reduce the level of implementation for the first trigger since this is educational and we should start that as early as possible to raise the level of concern.
- Triggers need to be quantifiable
- Stages should align with the identified triggers.
- Number of stages could be reduced.

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

- Acknowledge folks for doing the right thing
- Retrofitting older buildings and sub-metering of large complexes.
- Facilitate the use of grey water permitting
- Look at no new water connections
- Expand use of reclaimed water
- Outreach to yard maintenance persons that may not be aware of drought or speak English.
- Program for low-flow toilets based on return on investment
- Target the largest water users with audits for industrial, institutional and HOAs

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

- All customers classes should be impacted and treated the same
- Allocation program should allow for waiver for specific situations
- Allocation program should be clear to customers
- Tier structure was preferred for ease of implementation and would reduce confusion between customers.
- A baseline would be more flexible for each individual customer
- Whatever allocation plan is implemented, that after the drought emergency is lifted, that rates would go back to the tier.
- Penalties set forth would offset revenue loss to conservation

**ATTACHMENT B**

**PROPOSED REVISIONS TO WATER  
SHORTAGE CONTINGENCY PLAN**

# Proposed Revisions to Water Shortage Contingency Plan

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## 1.1 Overview

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

### **A. Declaration of Purpose of Plan**

The City of Ventura has developed a Water Shortage Contingency Plan (Plan) to provide guidance during the various stages of a 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. The purpose of this Plan is to: (1) keep water use within supply and delivery capability, based on recommendations of citizen's advisory Water Shortage Task Force, (2) define procedures to be used when the above criteria cannot be met, and (3) familiarize citizens, businesses and industry with procedures which may be implemented when voluntary or mandatory water restrictions are required.

The Ventura Water General Manager, or designated representative, shall keep the City Council informed of the conditions of water supply, system usage, and delivery capacity, and may make recommendations to the City Council as appropriate, using best professional judgment and considering weather conditions, weather forecasts, river flow conditions and water system operations, for either enactment of initial restrictions or acceleration to an appropriate level in the Plan. The Plan outlines specific signals for responding to and management of the City's water supplies through various circumstances, particularly drought conditions. In addition, the California Department of Public Health and the Ventura County Health Care Agency shall assist in determining whether an exception to any restrictions imposed according to the Plan is necessary for the welfare, health, and safety of the public.

### **B. Water System Capacity**

The City of Ventura owns, operates and maintains a water distribution system that provides domestic water service to a population of approximately 113,500 persons and has approximately 32,000 service connections. The City's existing water service area includes all portions within the City limits, as well as portions of unincorporated Ventura

County that meet the City's policy for water connections outside City limits (Municipal Code Section 22.110.055).

The City's domestic water supply is derived from local groundwater basins, Lake Casitas and surface and sub-surface water from the Ventura River. There are presently five water sources that provide water to the Ventura Water System, in addition to reclaimed water that can be used to offset potable demand:

- Casitas Municipal Water District (Casitas)
- Ventura River Foster Park Area (Foster Park)
- Mound Groundwater Basin (Mound)
- Oxnard Plain Groundwater Basin (Fox Canyon Aquifer)
- Santa Paula Groundwater Basin (Santa Paula Basin)

The City also has a 10,000 acre-foot per year allocation from the California State Water Project. To date the City has not received any of this water because there are no facilities to get the water to the City. The City currently has 43.2 MG of operational storage citywide.

### **C. Policy of Water Conservation**

It is the policy of Ventura Water to promote water conservation. The water supply to the City of Ventura is a limited resource, and everyone shares in the responsibility for appropriately using and preserving this resource. All customers of the Ventura Water System are therefore encouraged to voluntarily reduce water usage by daily practicing water conservation, regardless of whether voluntary or mandatory water restrictions are implemented or certain water shortage rates are applied. There are many simple, cost-effective ways to lower water use and reduce strain on water resources and infrastructure without compromising Ventura's quality of life. Customers of the Ventura Water System are encouraged to follow at all times the water conservation measures found at [www.cityofventura.net/water/efficiency](http://www.cityofventura.net/water/efficiency).

### **D. Coordination with City Facilities and Departments**

Ventura Water will coordinate with the other City departments to assure that City facilities and parks are being operated in a water efficient manner and to assist Ventura Water in attaining conservation goals. City facilities have a strong program of water and energy efficiency. Ventura Water and Parks will partner to review and reduce the irrigation of City property, and Ventura Water and Environmental Sustainability staff have a strong working relationship with our schools by providing educational programs to teach students how to reduce water usage.

## **1.2 CAUSES FOR RESTRICTIONS**

### **A. Drought**

If drought conditions cause a reduction in Ventura River flows to the extent that water demands within the Ventura Water System service area begin to deplete the volume of water available in the well field, the City may consider enacting voluntary or mandatory restrictions targeted primarily at reducing irrigation of turf and other high use outdoor watering activities. Such restrictions would be based primarily on water supply availability and water use that is occurring. Any such restrictions would be enacted pursuant to San Buenaventura Municipal Code, Chapter 22.170 Water Conservation, Section 22.170.010. Water waste prohibited, and enforced pursuant to applicable code provisions.

## **B. Natural Disaster or Failure of Water System Facilities**

If a natural disaster, such as an earthquake, fire, toxic spill or flood, or catastrophic failure of Ventura Water System facilities occurs, the City will enact restrictions under Critical Water Shortage (Level 3), as addressed in Section V of this Plan. Such restrictions would be based on the varying circumstances as adjudged necessary and appropriate by the City Council and the Ventura Water General Manager. Any restrictions would be enacted pursuant to San Buenaventura Municipal Code, Chapter 22.170 Water Conservation, Section 22.170.010. Water waste prohibited, and enforced pursuant to applicable code provisions. Outside irrigation will be prohibited.

### 1.3 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.~~

The signals below are based on available water supply (acre feet per year, AF/Yr) and will be used to initially consider if drought water restrictions shall be implemented. Other circumstances shall also be considered, including but not limited to, the time of year, weather forecasts, river flow forecast, previous rainfall, temperature, past experience and economic considerations, the volume of water available from Lake Casitas and for pumping from groundwater wells, and water quality concerns.

Each of the levels shall remain in effect until conditions indicate a more or less restrictive level is necessary and the current level is rescinded to a less restrictive level or accelerated to a more restrictive level by the City Council. The City Council shall have authority to enact any level and need not proceed in order through the levels. Levels 2 and 3 of the Plan shall be enacted by declaring an emergency water restriction

pursuant to the ordinance or resolution adopted by the Ventura City Council that enacts this Plan. Water supply signals and goals for each restriction level are outlined in Table 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.

**TABLE 1 - WATER RESTRICTION LEVELS**

<b>LEVEL</b>	<b>SUPPLY AVAILABLE</b>	<b>DEMAND SIGNAL</b>	<b>DEMAND REDUCTION GOAL</b>
<b>1 Moderate Shortage</b>	Based on the previous 5 Year water production average.	Five year average from Table 3-5 - Historical Annual Water Consumption as reported in the most recent Comprehensive Water Resources Report is 10 – 20% above available supply	<b>Stage 1:</b> 10 - 20% Voluntary
<b>2 Severe Shortage</b>	Based on the previous 5 Year water production average.	Five year average from Table 3-5 - Historical Annual Water Consumption as reported in the most recent Comprehensive Water Resources Report is 20-40% above available supply	<b>Stage 2:</b> 20% Mandatory <b>Stage 3:</b> 30% Mandatory <b>Stage 4:</b> 40% Mandatory
<b>3 Critical Shortage</b>	Based on the previous 5 Year water production average.	Five year average from Table 3-5 - Historical Annual Water Consumption as reported in the most recent Comprehensive Water Resources Report is 50% or greater than above available supply	<b>Stage 5:</b> 50% Mandatory

### 1.4 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 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 8-22  
ESTIMATE OF MINIMUM SUPPLY FOR THE NEXT THREE YEARS**

Source	Supply (AF)		
	2012 <del>5</del>	2013 <del>6</del>	2014 <del>7</del>
Casitas Municipal Water District <sup>(a)</sup>	6,000 4,600	6,000	6,000
Mound Basin <sup>(b)</sup>	5,500 4,000	5,500	5,500
Oxnard Plain Basin <sup>(c)</sup>	4,100 3,918	4,100	4,100
Santa Paula Basin <sup>(d)</sup>	1,141 1,606	1,141	1,141
Ventura River (Foster Park) <sup>(e)</sup>	4,200 0- 2,000	3,500	2,000
Recycled Water	700 700	700	700
	21,641		
	14,824-		
<b>Total Supplies</b>	<b>16,824</b>	<b>20,941</b>	<b>19,441</b>
Groundwater Basin Reliability Supply <sup>(f)</sup>	29,200 0	29,200	29,200

Notes: None of these numbers preclude the City’s water rights. Figures are from Table 4-2 Summary of Projected Future Water Supply From Existing Sources, from the City’s 2014 Comprehensive Water Resources Report, May 1, 2014.

- (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.

### 1.5 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.

## 1.6 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:~~

At each of the stages of action within the Water Shortage Contingency Plan, Ventura Water and its customers each have certain actions they must undertake. Ventura Water 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.

### **A. Calculations of Allocation**

Customer allocations will be based on the most recent average winter consumption (usage between February – May). 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.

### **B. Surcharge**

Customers that exceed their set usage allocation will be charged a surcharge per HCF over their allocation. The amount of the surcharge will be based on revenue loss and costs associated with running a mandatory conservation program, less the amount of

savings from not producing and delivering the water during the mandatory reduction period. Therefore, the surcharge amount will differ for each reduction stage. The surcharge will be placed on the customer's water bill.

### **C. Efficiency Tracking**

It will be necessary to calculate if water conservation actions are meeting the desired reduction goal. To determine this Ventura Water staff will compare bimonthly billing for each customer class to determine if target reduction goals are being met. If goals are not being met, it may be necessary to go to the next reduction stage to attain the necessary cutbacks needed.

#### **~~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 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.~~

## **D. City and Customer Action Plan**

There are actions that the City and Water Customers will be responsible to undertake at each stage to attain demand reduction goals. These measures of the five-stages of the City's water shortage plan include:

### **(a) Stage 1: 0-20 Percent Reduction Goal (Voluntary)**

#### City 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.
- Request voluntary water consumption reduction.
- Maintain existing tiered rate structure to promote water conservation.
- Enforce water waste ordinance.

#### Water Customer Actions

- Monitor own meter for usage.
- Implement conservation measures to reduce usage.
- Comply with water waste ordinance.

### **(b) Stage 2: 20 Percent Reduction Goal (Mandatory)**

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

- Prepare a resolution for City Council approval initiating the appropriate mandatory conservation stage addressed in the City's Municipal Code
- Enforce mandatory water consumption goals and allocations for all customers.
- Enact water rate surcharge for water consumption over the customer's allocation.
- Enactment of surcharge review program, customers may appeal in writing for a waiver of penalties incurred due to a leak or break or hardship.

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

- Comply with mandatory water conservation regulations.
- Do not allow water to run and be wasted during outdoor use. (Adjust or reduce your sprinklers so the water does not run off the grass and onto the pavement or street.)

- Do not allow leaks to persist past 48 hours.
- Do not use a handheld hose to wash a vehicle unless it has a shutoff nozzle.
- Restaurant water service is by customer request only.
- Do not operate fountains unless the water is recycled.
- Do not wash or hose down hardscape or hard surfaces such as driveways and sidewalks.
- Do not knowingly waste water in any way.
- Comply with prohibited 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.

**(c) Stage 3: 30 Percent Reduction Goal (Mandatory)**

City Actions (In addition to actions established in previous Stage)

- Prepare a resolution for City Council approval initiating the appropriate mandatory conservation stage addressed in the City's Municipal Code
- 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 regulations. **(Need to identify these actions as to what can be added to previous stages)**

**(d) Stage 4: 40 Percent Reduction Goal (Mandatory)**

City Actions (In addition to actions established in previous Stage)

- Prepare a resolution for City Council approval initiating the appropriate mandatory conservation stage addressed in the City's Municipal Code
- Enforce mandatory water consumption goals and allocations for all customers.
- Service to Municipal Irrigation Interruptible Rate Customers will be limited to health and safety and the public welfare – park by park or 20% over all park reduction.

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

- Comply with mandatory water conservation regulations. **(Need to identify these actions as to what can be added to previous stages)**

**(e) Stage 5: 50 Percent Reduction Goal (Mandatory)**

City Actions (In addition to actions established in previous Stage)

- Prepare a resolution for City Council approval initiating the appropriate mandatory conservation stage addressed in the City's Municipal Code
- Enforce mandatory water consumption goals and allocations for all customers.
- No outdoor irrigation will be allowed.
- All water use not required for health and safety is prohibited.
- Suspend the issuance of new building permits.

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

- Comply with mandatory water conservation regulations. **(Need to identify these actions as to what can be added to previous stages)**
- 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 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 firefighting.
- 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.

In a disaster, prior notice of allotment may not be possible; notice will be provided by other means. 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.

## 1.7 CRITICAL WATER SHORTAGE

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 Critical Shortage condition (greater than 50% supply loss).

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 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 analyzed seven different operational outage scenarios and provides an analysis of system impacts as well as long-term system improvements required to mitigate these impacts.

## 1.8 ACTIONS ON BEHALF OF CITY

The City shall use best efforts to comply with the restrictions similar to those implemented for the public to the extent possible and not inconsistent with the restrictions provided for City in this section. City will work with those governmental agencies and entities with property in the city limits for cooperation with the water restrictions imposed by this level or other levels.

The watering of newly planted street, park and/or golf course trees, street medians, and general irrigation, all on City property, should be limited. Non-potable water from wastewater treatment shall be used by City personnel if available for such purposes. In Level 2 or 3 mandatory restrictions, ornamental fountains and waterfalls shall not be replenished unless connected to recycled water. City parks have three priorities for watering during a shortage: 1) No or little reduction in watering of sports fields that need turf for safety issues, 2) 20-30% reduction in watering for tourist areas of the City that need to look welcoming to visitors and 3) 30-40% reduction in passive areas, these are the areas that will turn brown first.

During Level 2 or 3, the decision to fill or refill the City swimming pools or continued operation of said pools shall be approved by the City Council with input from the Ventura Water General Manager or designees in a manner that is safe and expeditious separate from the restrictions in the Plan. Hydrant flushing maintenance program shall be limited except as deemed necessary by the Ventura Water General Manager or designees to enhance water quality, fire flow tests, and large meter tests. Jet flushing of sanitary sewers, storm sewer flushing, and street sweeping shall be limited except as deemed necessary for health, safety, sanitation, or general welfare purposes.

## 1.9 ENFORCEMENT

Enforcement of these restrictions shall be in accordance with San Buenaventura Municipal Code, Chapter 22.170 Water Conservation, Section 22.170.010. Water waste prohibited. The provisions of the section apply to all persons using city water, both in and outside the city, and within the city water service areas. Sections 1.150.010 through 1.150.050 of the San Buenaventura Municipal Code shall only apply to water users within

the City, while city water users outside the city shall be punishable as specifically provided in Section 1.150.030.

#### **A. Water Waste Prohibition**

The San Buenaventura Municipal Code prohibits water waste. The code outlines that no person shall use or permit the use of water:

- (a) 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;
- (b) 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;
- (c) 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;
- (d) For the operation of any ornamental fountain, or similar structures, unless water for such use is recycled for lawful reuse without substantial loss;
- (e) 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;
- (f) For serving of water by a restaurant to its customers without first being requested by the customer;
- (g) For 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),  
or
- (h) Knowingly for any indiscriminate running of water or washing with water not otherwise prohibited above which is wasteful and without reasonable purpose.

The following civil penalties shall apply for violation of any of the water waste provisions:

- (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 up to a maximum of \$500.00. 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.

## **B. Mandatory Water Regulations**

The Ventura City Council may choose to take actions through ordinance and resolution that establish mandatory water regulations that may include enforcement actions such as those previously implemented which includes:

- (a)
- (b) A customer who does not meet the mandatory cutback shall pay a surcharge
- (c) If a customer continues to exceed the mandatory cutback after three consecutive billing periods, the City may install flow restrictors, at the customer's expense, in the City's meter service connection which reduces water flow and pressure.

The Ventura Water General Manager, with the approval of the City Manager, may prescribe rules and regulations for the implementation of ordinance provisions.

### ~~1.10 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**

<b>Measure</b>	<b>Summary of Effects</b>
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

## 1.11 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.

## 1.10 CITY 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.

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. 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 is provided in Table 2, current data is available only for January to March 2014, with the previous year data used to develop the annual revenue shortfall.

## DRAFT FOR DISCUSSION

**TABLE 3  
REVENUE IMPACTS DURING SHORTAGE AS OF MARCH 2014**

	<b>Percent Reduction and Reduced Revenue</b>				
	<b>10%</b>	<b>20%</b>	<b>30%</b>	<b>40%</b>	<b>50%</b>
January 2014	(\$162,792)	(\$321,547)	(\$475,843)	(\$625,335)	(\$769,838)
February 2014	(\$241,798)	(\$479,409)	(\$712,534)	(\$940,991)	(\$1,164,534)
March 2014	(\$142,174)	(\$280,486)	(\$414,868)	(\$544,998)	(\$670,783)
April 2013	(\$208,808)	(\$414,153)	(\$615,865)	(\$814,208)	(\$1,009,068)
May 2013	(\$170,748)	(\$337,160)	(\$498,850)	(\$655,567)	(\$806,634)
June 2013	(\$296,301)	(\$586,870)	(\$871,266)	(\$1,148,984)	(\$1,420,109)
July 2013	(\$193,952)	(\$382,791)	(\$565,775)	(\$742,138)	(\$911,726)
August 2013	(\$314,379)	(\$622,904)	(\$924,645)	(\$1,219,067)	(\$1,505,810)
September 2013	(\$219,854)	(\$433,987)	(\$641,808)	(\$842,463)	(\$1,035,215)
October 2013	(\$303,709)	(\$601,579)	(\$893,276)	(\$1,178,217)	(\$1,456,215)
November 2013	(\$210,504)	(\$415,822)	(\$615,219)	(\$807,794)	(\$992,767)
December 2013	(\$228,607)	(\$453,358)	(\$673,959)	(\$890,034)	(\$1,101,754)
<b>Annual Total</b>	<b>(\$2,693,626)</b>	<b>(\$5,330,066)</b>	<b>(\$7,903,908)</b>	<b>(\$10,409,796)</b>	<b>(\$12,844,453)</b>

Assumptions:

Reductions are inside City customers only

Reductions based on existing tiered rates only

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.

The water purchases, utility costs and chemical costs are *not* a linear function of the water usage reduction. However, in order to provide an estimate of the cost savings, it is assumed that if there is a ten percent reduction in usage, there will also be a ten percent reduction in associated costs. It should also be noted that if the mandatory reductions are required from December through April the wastewater revenue will be impacted for the

following fiscal year. Table 3 summarized the annual cost saving with respect to the percent reduction in water demand.

**TABLE 4**  
**Percent Reduction and Annual Cost Savings**

	<b>10%</b>	<b>20%</b>	<b>30%</b>	<b>40%</b>	<b>50%</b>
<b>Water Purchases</b>	\$335,962	\$671,924	\$1,007,886	\$1,343,848	\$1,679,809
<b>Utilities and Chemicals</b>	\$246,469	\$492,938	\$739,407	\$985,876	\$1,232,345
	\$582,431	\$1,164,862	\$1,747,293	\$2,329,724	\$2,912,154

A summary of measures to overcome revenue and expenditure impacts is provided in Table 4.

**TABLE 5**  
**MEASURES TO OVERCOME REVENUE IMPACTS DURING SHORTAGE**

<b>Measure</b>	<b>Summary of Effects</b>
Use of Reserve Funds	Use of reserves may provide short-term rate stabilization, but would 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 with purchase, treatment, and distribution of water.
Rate Increases	Increase revenue.

It should be noted that expenditure impacts could be reduced 2-10% during mandatory conservation efforts less than 50% because of the reduction in costs associated with the treatment and delivery of potable water. We will use the water rate model to predict the savings for the 10-50% water reductions. Rate adjustments could also be employed either solely or in conjunction with capital expenditure reductions.

### **1.11 MECHANISM TO DETERMINE REDUCTIONS IN WATER USE**

Certain aspects of water conservation can be readily monitored and evaluated, such as metered water use and production quantities. 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:

- Monitoring of Metered Water Usage – This will determine how much has been used. Compiling annual statistics to track usage of customer groups to determine trends is currently being done through the EnQuesta water billing computer system. Meter readings/billings can be compared and analyzed to determine the effectiveness of conservation for all customer classes.
- Monitoring Production Quantities – In normal water supply conditions, production figures are recorded daily by automation in the City's HACH Software System. The Water Production Supervisor and the Production Leadworker 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 Water Treatment Supervisor.

To verify that conservation reduction goals are being met, production and metered usage reports will be provided to the Ventura Water General Manager and Water Utility Manager during each stage of the conservation period. Water production figures will be compared to previous year production figures for the same time period to ascertain if conservation goals are being reached.

## **1.12 RESOURCES**

Ventura Water will endeavor to provide Ventura Water System customers and citizens of the City of Ventura with information about the Plan and any restrictions imposed through press releases or press conferences, newspaper advertisements or articles, public electronic billboards or signs, website updates, brochures, public service announcements, television and radio interviews/appearances, and/or other means. During implementation Levels 2 or 3 of drought water restrictions, call center(s) for questions and violation reporting will be available for citizens. For additional resources on drought conditions and water conservation:

- The City of Ventura water efficiency website: <http://www.cityofventura.net/water/efficiency>
- Customers within the Casitas Municipal Water District service area are eligible for free water surveys and rebates offered by Casitas. For more information, call (805) 649-2251 ext. 110 or visit [www.casitaswater.org](http://www.casitaswater.org)
- The State of California Department of Water Resources water use efficiency website: <http://www.water.ca.gov/wateruseefficiency/>
- California Urban Water Conservation Council: <http://www.cuwcc.org/>
- Alliance for Water Efficiency: <http://www.allianceforwaterefficiency.org/>
- US Environmental Protection Agency – WaterSense:  
<http://www.epa.gov/watersense/>

- Save Our Water is a statewide programs aimed at helping Californians reduce their everyday water use. Created in 2009 by the California Department of Water Resources and the Association of California Water Agencies, the program offers ideas and inspiration for permanently reducing water use:  
<http://www.saveourh2o.org/>

Agenda Item Number 5  
Review of Existing Rebate and  
Incentive Programs in  
Tri-County Region  
October 22, 2014



# ADMINISTRATIVE REPORT

Date: October 1, 2014

Agenda Item No: 5

Meeting Date: October 22, 2014

**To: WATER SHORTAGE TASK FORCE**

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

**Subject: REVIEW OF EXISTING REBATE AND INCENTIVE PROGRAMS IN TRI-COUNTY REGION**

## RECOMMENDATIONS

Receive and file report.

## DISCUSSION

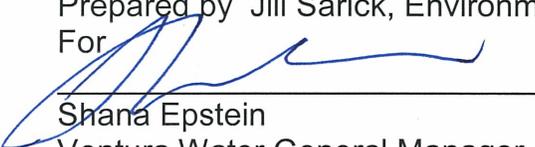
Per the Task Force request, staff has prepared an overview of existing incentive and rebate programs in the tri-county region. Notable rebate programs were identified then compared. The water purveyors included in this overview include:

- The City of Ventura
- Ojai and surrounding communities
- Some SoCal WaterSmart purveyors, including: Simi Valley, Oxnard, Thousand Oaks, Las Virgenes Water District, and Camarillo
- Santa Barbara
- Long Beach

The City of Ventura, Fillmore and Ojai are the only cities in Ventura County that are not members of Metropolitan Water District (MET); therefore do not participate in the SoCal WaterSmart incentive program. The City of Santa Barbara coordinates a rebate and incentive program primarily in-house and Long Beach uses a combination of both MET and in-house funds for their programs.

Prepared by Jill Sarick, Environmental Services Specialist

For

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



# Water Shortage Task Force

**Shana Epstein**  
**Ventura Water General Manager**

**October 8, 2014**

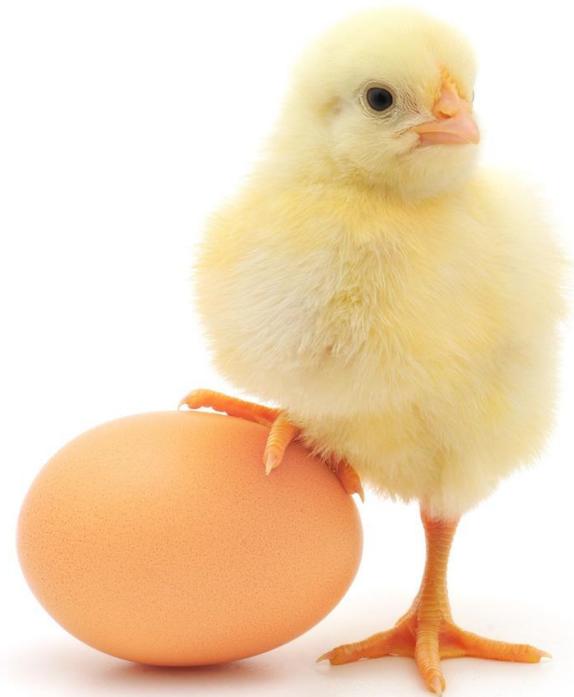


# Water Efficiency Rebates and Incentives

## Rebate versus Incentive

Rebate: return of part of original payment or service; partial refund

Incentive: something that incites or tends to incite action or greater effort; as reward for increased productivity





Turf Removal & Replacement	\$ per rebate
SoCal WaterSmart (contractor for Metropolitan Water District)	\$2/SF*
Oxnard	\$2/SF
Simi Valley	\$2/SF
Camarillo	\$2/SF
Las Virgenes	\$2/SF
Long Beach	\$3/SF*
Los Angeles	\$3/SF*
City of Santa Barbara (some BOR/DWR funding, rest in-house) – note; not a traditional turf rebate	50% of cost; up to \$1,000 max

\* Some communities have increased the \$/SF amount with in-house funds.

# VCRULE Program

## Ventura County Regional Urban Landscape Efficiency Program

- Oxnard
- Simi Valley
- Camarillo
- Camrosa Water District
- Port Hueneme
- Ventura County Water Works
- Casitas Municipal Water District

Prop 84 funds to conduct **water surveys, offer either WBICs and/or HE Sprinkler Nozzles**

Most agencies have already identified the customers to target due to short implementation schedule



## Other Rebates and Incentives being offered

Pool covers

High Efficiency Toilets

High Efficiency Urinals (Commercial)

High Efficiency Washing Machines

Free Rain Shut-off device with water check-up

Rain Barrels (228 rain barrels since inception)

Soil moisture sensors

Pressurized Waterbrooms (Commercial)

High Efficiency Pre-rinse Spray Nozzles (Commercial)

Cooling Tower Efficiencies (Commercial)

California**FIRST**  
ENERGY SAVING FINANCING

## Metrics on SoCal WaterSmart Program

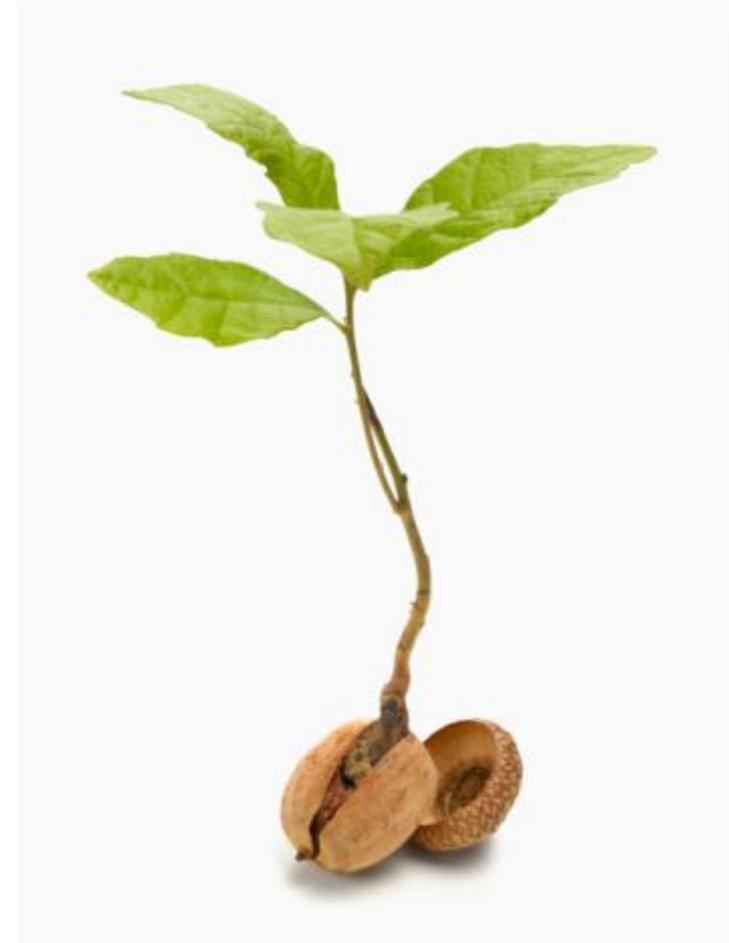
### Amount Paid Since January 2014

- 7.5 million SF of turf converted for commercial
- 3.8 million SF of turf converted for residential
- Commercial device rebates – over \$2.4M
- Residential device rebates – over \$1.5M
- Turf Removal – over \$825K
- 9400 applications since January 2014 – with 24 member agencies out of 26 total member agencies

## Considerations

Start small and be prepared to grow.

- Work with local vendors
- **Pilot program** that pays only 50% of cost of device/measure up to \$1000 per application.
- Consider that contractor will charge up to 10% or more per device/rebate for administration.
- Conduct a Market Saturation Study -- ??



## Some Metrics

Water Efficiency Devices/Products		
Device or Product	Average cost/1,000 SF	Potential Savings
Rain Shut-off Device	\$40	--
Weather Base Irrigation Controller	\$200	6-22% reduction in average use <sup>^</sup>
High Efficiency Sprinkler Nozzles	Average \$5/nozzle	20% savings*
Spray to Drip Conversion	\$100	Usually 90% more efficient
Climate appropriate plants (approved list)	\$300-\$2000 per 1,000 SF depending upon plant material <sup>+</sup>	50% savings from traditional turf <sup>+</sup>
Natural and permeable mulch	\$0 to \$200/ 1,000 SF	100% savings
High Efficiency Toilet	\$150 per toilet	20% more efficient
High Efficiency Washer	\$700 per washer	20% more efficient
Rain Barrels	\$90/barrel	varies



**If** Ventura Water offered a water efficiency program of 50% incentive up to \$1,000 per property

Water Efficiency Devices/Products				
Device or Product	50% Incentive	# of Incentives	Budget	Est. Savings
Rain Shut-off Devices	\$20	250	\$5000	varies
Weather Base Irrigation Controllers	\$100	250	\$25000	varies
High Efficiency Sprinkler Nozzles	\$2.5	5000	\$12500	30 AF
Spray to Drip Conversion	\$50	250	\$12500	varies
Approved appropriate plants	\$150	125	\$18750	10 AF
Approved sod	\$1000	125	\$125000	10 AF
Permeable mulch	\$50	250	\$12500	varies
High Efficiency Toilets	\$75	100	\$7500	1 AF
High Efficiency Washers	\$350	100	\$35000	2 AF
Rain Barrels	\$42	300	13200	varies
10% Administration			\$26945	
<b>Total Estimated</b>			<b>\$296,400</b>	<b>Est. 50 + AF Saved</b>



# Particularly Notable Programs to Consider Modeling.

HOME | LOGIN

CONNECT WITH US:

Apply for L2G | Free Designs & Ideas | **Selecting the Right Plants** | Money Saving Tips | How To... | Discussion Room

Award Winning! LONG BEACH WATER DEPARTMENT  
**Lawn-to-Garden Turf Replacement Program**

*"We spend a lot of energy moving water around [California], and one big reason is landscaping. We really don't need to do that, and need to better appreciate the diversity of local and non-local drought tolerant landscaping."  
(Lawn-to-Garden participant)*

**Receive up to \$3,500 - Now accepting Applications!**

Welcome to our **Lawn-to-Garden (L2G)** website. We've created this site to help you, our valued customer, replace a water-guzzling grass lawn with a beautiful water-smart landscape that is in harmony with our region's semi-arid climate. Conserving the vast amounts of water normally applied to grass lawns is more important than ever, now that our region's imported water supplies have been permanently reduced.

Your neighbors told us these are the most important benefits of these water-efficient landscapes:

[Register for Landscape Classes](#)

[Take the Online Class Here](#)

**Energy Star Landscapes**



# Particularly Notable Programs to Consider Modeling.

The screenshot shows the City of Santa Barbara website's "Rebates" page under the "Water" category. The page features a navigation menu on the left with options like "EXPLORE", "Water Conservation Home", and "Rebates". The main content area is titled "Rebates" and "Residential Rebates". It lists several rebate programs:

- Pool Cover Rebate:** Rebate for 50% of the material cost, up to \$300. Must provide photo and receipt. Must be a City water customer to qualify. Stand-alone spas not eligible. Read our [FAQs](#) for more information.
- Landscaping and Irrigation Rebate:** Rebate of up to \$1,000 for irrigation equipment, smart irrigation controllers, gray water material, water-wise plants, mulch and more!
- Rain Shut-off Sensors:** Get a free rain sensor for existing irrigation controllers when you get a free water checkup.
- Clothes Washers:** Up to \$150 rebate for a high efficiency clothes washer. Only applicable for replacing an existing high-water using washer, rebates are not retroactive.
- Free Sprinkler Nozzles:** Visit the website to get your voucher for up to 25 free water-efficient sprinkler nozzles!

The page also includes a search bar, a "Go" button, and a "Share" button with a count of 1. A small image of a plant growing from a stack of money is used as a visual metaphor for rebates.



# Questions???



**DOING  
OUR PART  
TO SAVE  
WATER**

