



## SECTION 7: DEMAND MANAGEMENT MEASURES

### 7.1 DOCUMENT REQUIREMENTS

#### 7.1.1 UWMP Requirements

This section will include the following:

- Describe how each water demand management measures are being implemented or scheduled for implementation. Use the list provided. [(1) Discuss each DMM, even if it is not currently or planned for implementation. Provide any appropriate schedules] (CWC, 10631(f))
- Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP. (CWC, 10631(f)(3))
- Provide an estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the ability to further reduce demand. (CWC, 10631(f)(4))
- Evaluate each water demand management measure that is not currently being implemented or scheduled for implementation. The evaluation should include economic and non-economic factors, cost-benefit analysis, available funding, and the water suppliers' legal authority to implement the work. (CWC, 10631(g))
- Include the annual reports submitted to meet the Section 6.2 requirements, if a member of the CUWCC and signer of the December 10, 2008 MOU. [Signers of the MOU that submit the annual reports are deemed compliant] (CWC, 10631(j))
- Requires water suppliers to provide narratives describing their water demand management measures, as provided. Requires retail water suppliers to address the nature and extent of each water demand management measure implemented over the past 5 years and describe the water demand management measures that the supplier plans to implement to achieve its water use targets. (CWC, 10631 (f)(1) and (2))
- Wholesale agencies must provide narrative descriptions of metering, public education and outreach, conservation program coordination and staffing, and other demand management measures that significantly impact water use.

#### 7.1.2 AWMP Requirements

This section will include the following:

- AWMP must include demand management policies and incentives in addition to the water shortage allocation plan to lower on farm water use.
- Water Code §10826 (e) requires that certain water use efficiency information be included in the AWMP per §10608.48. Sections 10608.48 (a) through 10608.48(f) are related to the EWMPs of the AWMP. Sections 10608.48 (a) to 10608.48 (c) require implementation of



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EWMPs. Section 10608.48 (d) requires a report of which EWMPs have been implemented, an estimate of efficiency improvements, and documentation that non-implemented EWMPs were either not locally cost-effective or technically feasible. Section 10608.48 (e) specifies how to report the information.

- Implementation of critical EWMPs (Water Code §10608.48 (b)) are required of all agricultural water suppliers. Other EWMPs (Conditional), listed in Water Code §10608.48 (c), are required only if they are locally cost-effective and technically feasible. CADWR also encourages the agricultural water supplier to report on how implementation of EWMPs may have affected or is anticipated to affect operations.

### 7.2 INTRODUCTION

Casitas MWD has a long history and strong commitment to water use efficiency. In 1992 the Casitas MWD Board of Directors adopted a series of ordinances, resolutions, and a Water Efficiency and Allocation Program (WEAP) in response to the increasing water demands and declining water storage in Lake Casitas experienced during the 1987-1991 drought period. The collective work in 1992 set the starting point for a system of water allocation assignments and demand response criteria that are based on the level of water storage in Lake Casitas. Casitas MWD Board of Directors adopted a Water Shortage Contingency Plan in 1992, by Resolution No. 92-11, that set water use reduction goals for the various stages of Lake Casitas storage. Casitas MWD Board adopted Resolution 2014-0038 drought emergency regulations, that supplemented the Water Shortage Contingency Plan, limited the outdoor irrigation of ornamental landscapes or turf with potable water. Casitas MWD Resolution 15-02 includes permanently prohibited uses of water that are in effect year round. Provisions of this Ordinance applies to all persons, corporations, public or private entities, governmental agencies or institutions, or any other direct water customers of the Casitas MWD (copy of Resolution 15-02 provided in **Appendix K**). The Casitas MWD Board approved Resolution 15-30 which authorized implementation of a Conservation Penalty (copy provided in **Appendix K**).

Casitas MWD recently updated the WEAP (2015, copy provided in **Appendix K**). The purpose of the WEAP is to provide guidance on water supply and demand strategies that implement the following:

- 1) Conserve the water supply of the Ventura River Project, Lake Casitas and other water resources that are in the direct control of Casitas MWD, for the greatest public benefit;
- 2) Mitigate the effects of a water shortage on public health and safety and economic activity;
- 3) Allocate water use so that a reliable and sustainable supply of water will be available for the most essential purposes under all water storage conditions of Lake Casitas; and
- 4) Adapt to changing conditions of water supply demand and constraints.



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The WEAP describes the water demand reduction strategies and measures to address future water shortage conditions, promote water conservation and the efficient use of water, and the application of a conservation penalty to customers who waste water.

In addition, Casitas MWD is a signatory to the Memorandum of Understanding (MOU) with the California Urban Water Conservation Council (CUWCC). This essentially declares Casitas MWD's intent to implement all cost effective water conservation Best Management Practices (BMPs) as noted by the CUWCC. A copy of the most recent approved CUWCC BMP Coverage Report is provided in **Appendix L**.

The next two sections (**Sections 7.3 and 7.4**) summarize the conservation measures as required by the UWMP and AWMP, respectively.

**7.3 UWMP DEMAND MANAGEMENT MEASURES**

The UWMP Act currently requires wholesale agencies to provide narrative descriptions of metering, public education and outreach, conservation program coordination and staffing, and other demand management measures that significantly impact water use.

Casitas MWD is a retail water agency, wholesale water agency, and an agricultural water agency. However, for the purposes of this UWMP, the Casitas MWD is considered a wholesale agency. The Casitas MWD will comply with the UWMP requirements as a wholesale agency.

**7.3.1 Metering**

All of the Casitas MWD surface water supplies and ground water supplies are metered. Accuracy of the District's meters is generally 98 percent to 102 percent. All of the Casitas MWD direct customers are metered. Casitas MWD has meters for all of the Resale customers.

**7.3.2 Public Education and Outreach**

The extensive Casitas MWD public education and outreach program promotes the water conservation ethic and informs the public of the benefits derived from conserving a valuable resource. Implementing water conservation and demand management strategies will allow Casitas MWD to manage local water supplies throughout a long-term drought and avoid supply depletion. Many of the diverse public education and outreach activities are summarized below.

Casitas MWD distributed bi-annual newsletters that include information on water conservation to all 30,000 residents within the Casitas MWD. The newsletters include information on water conservation, workshops, and other water-related news. Two additional bill stuffers are sent out each year as well to ensure that there is a quarterly contact with customers. Every bill statement has a water conservation message on it. Examples of public information are provided in **Appendix M**.

The Casitas MWD website (<http://www.casitaswater.org/>) is updated regularly with water conservation videos, articles, and program updates. Press releases or media contacts are made each



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quarter. Casitas MWD also posts conservation messages and announcements to Facebook (<https://www.facebook.com/fbsitecasitasmunicipalwaterdistrict/>).

Customer water bills include information on previous usage. Casitas MWD recently removed all of the landscape turf from the main office and replaced it with drought tolerant plants. The office is located on a main road within the Casitas MWD service area. The high visibility for the drought tolerant plantings sets a significant example for customers.

The Casitas MWD prepares an annual Consumer Confidence Report (CCR) that is designed to inform customers about the quality of water and services provided. The Casitas MWD CCR also includes water conservation elements. A copy of the current CCR is provided in **Appendix J**.

Casitas MWD has a speaker's bureau program that is advertised in the newsletters. Casitas MWD staff members attend multiple community meetings throughout the year and discuss water conservation issues as part of their presentations. The Casitas MWD staff offers give-a-ways at community events such as free toilet flappers, low flow showerheads, and faucet aerators.

Some additional public education and outreach activities include the following:

- Provided water conservation information to all new customers within the Casitas MWD;
- Coordinated active public information program including: news media outreach to radio, television, newspapers, social media; and advertising on radio, television, newspapers, and social media;
- Provided free water audits to residential, commercial, industrial, institutional, and agricultural customers within the service area;
- Conducted water use efficiency workshops (approximately three per year);
- Provided free leak detection kits, low flow showerheads, low flow faucet aerators, and toilet flappers;
- Provided rebates to residential and commercial customers for High Efficiency Washing Machines, High Efficiency Toilets, and Smart Irrigation Controllers;
- Actively enforce Casitas MWD water waste enforcement program;
- Implemented updated water allocation program that provides penalties to individual customers that exceed their assigned allocations;
- Posted banners throughout the service area;
- Water Conservation – Landscape Sign program that recognizes individuals and businesses with aesthetically pleasing landscapes that are drought tolerant.

Casitas MWD has been an active participant in the Ventura County Watershed Coalition's preparation of the Integrated Regional Water Management Plan. This effort included developing a list of all potential projects among regional water agencies and organizations that could benefit from seeking regional cooperation. Casitas MWD, in conjunction with Senior Canyon Mutual Water Company,



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received a grant through the Ventura County Watershed Coalition for Proposition 50 regional grant funds. The grant will be used to improve the reliability of Senior Canyon Mutual Water Company's groundwater resources so they would rely less on Casitas MWD's surface water supply. This project will improve conjunctive use of local groundwater and surface water supplies. Casitas MWD received additional grants including, but not limited to, the following:

- Proposition 1 Drought grant funding for Aeration Project;
- Proposition 1 Drought grant funding for Turf Removal grant led by City of Ventura;
- Proposition 84 grant funding for VC-RULE (Ventura County Regional Landscape Survey and Retrofit program led by City of Oxnard).

Casitas MWD also participated in the development of the Ventura County-wide landscape water efficiency website <http://www.venturacountygardening.com/>. This website promotes native and drought tolerant plants on a regional basis and makes it easier for residents to plan water efficient landscapes. The website offers visitors the ability to maintain a plant database, browse numerous garden plans, and provides information on a large number of native and drought tolerant plants to include plant requirements for sun, soil, and water.

### **7.3.3 Water Conservation Program Coordination and Staffing**

Casitas MWD has a full-time Water Conservation Manager, full-time Water Conservation Specialist, full-time Water Conservation Analyst, and part-time Water Conservation Coordinator. Casitas MWD staff provide many water conservation services including report preparation, respond to customer questions, perform water use surveys, administer rebate programs, coordinate public information and outreach programs, plan and participate in special events and education programs, and conduct public speaking. In addition, Casitas MWD also utilizes consulting firms to assist with the implementation of demand management measures.

### **7.3.4 Other DMMs**

#### **7.3.4.1 Water Survey Programs**

Casitas MWD provides water survey programs for single-family and multi-family residential customers for direct retail customers and for whole agency customers. The Casitas MWD's direct survey program includes evaluating all indoor and outdoor water use. All water appliances are inspected. All toilets and faucets are inspected for leaks. A meter test is provided to check for leaks, landscape is thoroughly inspected for irrigation efficiency and plant type. These survey programs include distribution of low flow showerheads, toilet leak detection tablets, kitchen and faucet aerators, and rulers to measure toilet tank size. The customer is provided with a summary report on the improvements that can be completed both inside and outside the home to improve water use efficiency. The report also includes water and dollar savings, and a summary of rebate opportunities provided by Casitas MWD for appliances and smart irrigation controllers.



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**7.3.4.2 Residential Plumbing and Retrofit**

Casitas MWD provides free low flow showerheads, faucet aerators, toilet flappers, leak detection kits, and shower timers to all residents within the service area. Casitas MWD advertises these fixtures in the newsletter, on the website, and at the customer service counter.

**7.3.4.3 System Water Audits, Leak Detection and Repair**

Casitas MWD's system water audit and leak detection and repair program is a multifaceted effort. It includes the utilization of sound testing to check for mainline leaks on a routine basis; annual testing of customer meters and master meter testing to include repairs and replacements as needed; recording of flushing and leak repair losses; metering of all water uses; and measurement of master meters at each pump zone to determine if leaks occur in any geographic area. Pressure management for water loss minimization is limited to service needs in hilly areas.

**7.3.4.4 Large Landscape Conservation Programs and Incentives**

Casitas MWD has six dedicated irrigation meters. Casitas MWD only has a few dozen customers with large landscape accounts. Casitas MWD has joined several other agencies in Ventura County in an implementation grant through the Proposition 84 bond that will provide for county-wide landscape program. Each survey included an evaluation of the irrigation efficiency, area of landscape, area of turf, and distribution uniformity, observed leaks, timer settings, irrigation time settings, and the development of a water budget. A copy of the landscape report is provided to each customer.

**7.3.4.5 High-Efficiency Washing Machine Rebate Program**

Casitas MWD joined the Smart Rebate program operated by the CUWCC. Casitas MWD provides advertising but leaves the processing of rebates to the CUWCC.

**7.3.4.6 Conservation Programs for Commercial, Industrial and Institutional**

Casitas MWD has contacted all of the highest usage commercial/industrial/institutional (CII) customers and offered and provided surveys to those customers. The CII surveys include an inspection and an in-depth analysis of water usage at each facility evaluating all water use devices and processes. Final reports with recommendations and calculated benefits are provided to each customer. All CII customers are offered high efficiency washing machine rebates and high efficiency toilet rebates. Smart irrigation controller rebates are also offered to CII customers. Free showerheads, faucet aerators and toilet flappers are also provided.

**7.3.4.7 Wholesale Agency Programs**

Casitas MWD provides its retail water agencies with water conservation assistance. Casitas MWD participates with the SMART rebates program through the CUWCC. Casitas MWD also offers its smart irrigation controller rebates to the nine retail agencies. Casitas MWD's Water Conservation Manager has contacted retail agencies about water conservation programs available. There are only a few retail agencies of the nine that have CII customers but Casitas MWD has offered surveys to some of the larger CII customers in those agencies.

**7.3.4.8 Conservation Pricing**

The Casitas MWD currently has volume-based pricing for all accounts. Customers are billed monthly for 100 percent of the volume of water used. The Casitas MWD has the legal authority to evaluate



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and set rates for its customers. A copy of the Casitas MWD current rate schedule is provided in **Appendix G** and available on the Casitas MWD website:

<http://www.drivecms.com/uploads/casitaswater.org/2013-4.pdf> .

The commodity rate for Agricultural accounts is \$0.624 to \$0.904 per 100 cubic feet (HCF) depending on elevation of the property. The commodity rate for Agriculture-Residential accounts is \$0.602 to \$1.770 per HCF depending on usage and elevation of the property. The commodity rate for all Residential accounts is \$0.602 to \$2.614 per HCF depending on usage and elevation of property. The commodity rate for Commercial, Industrial, Resale, Other, Temporary, and Recreational accounts is \$0.827 to \$1.785 per HCF depending on customer category, usage, and elevation of the property. In addition, the Casitas MWD has an additional meter fee per customer meter size (see copy of rate schedule in **Appendix G**). The monthly meter fee ranges from \$23.34 per month (5/8 to 3/4 inch) to \$812.42 (6-inch).

The Casitas MWD currently has inclining block water rates for many of customer accounts. Inclining block rates are also known as conservation rate, where the cost per unit of water increases with the quantity of water used. Currently, Residential accounts and Residential-Agricultural accounts (up to 50 units) are charged based on an inclining block rate.

Conservation rate structure for water service is similar to utility rate structures in place for electricity and natural gas. In a conservation block rate structure, the unit price increases with each successive block, resulting in an increase in the incremental and the average cost of water with increased customer usage or conservation block rate structures. The block (quantity) shift points are generally based upon the unique demand characteristics of each user class and are focused on user demand points to enhance water usage awareness. Conservation block rate tends to decrease water usage, (i.e., promote water conservation), due to the economic disincentive to waste water. Conservation pricing may also include seasonal rates and/or excess-use surcharges to reduce demands during summer periods.

### **7.3.4.9 Water Waste Prohibition**

Casitas MWD has an adopted Water Waste Prohibition, see **Appendix K**, Resolution 15-02.

### **7.3.4.10 Residential High Efficiency Toilet Replacement Programs**

Casitas MWD has a high efficiency toilet (HET) program targeting residential and CII customers. Casitas MWD's program provides rebate incentives for retrofitting non-efficient devices with HET using 1.28 gallons per flush or less.

### **7.3.4.11 School Education Programs**

Casitas MWD has a school education program that provides state approved curriculum on water conservation for local classrooms. Casitas MWD also provides educational materials to kindergarten through high school teachers upon request. Casitas MWD coordinates with the Ojai Rotary Club to provide water conservation classrooms on a boat in Lake Casitas.



## 7.4 AWMP EFFICIENT WATER MANAGEMENT PRACTICES

The AWMP Act requires agricultural water suppliers to address Efficient Water Management Practices (EWMP) including two categories of measures: 1) critical activities, and 2) conditional activities. Critical activities are required to be implemented by agricultural water suppliers. Critical activities include two requirements: 1) accurate measurement of water deliveries to individual farming operations, and 2) adopting a pricing structure for agricultural water customers based at least in part on quantity of water delivered. Conditional activities must be implemented by agricultural water suppliers if they are locally cost-effective and technically feasible. **Table 7-1** lists EWMPs as required by the AWMP Act.

Casitas MWD is not required to implement the EWMPs since the Casitas MWD is voluntarily addressing the AWMP requirements and the service area includes less than 10,000 acres of agriculture.

**Table 7-2** provides a summary of the implementation status of each of the EWMPs. **Table 7-2** is followed by a narrative providing details of the efforts by Casitas MWD related to the implementation of each of the EWMPs.

### 7.4.1 Critical EWMPs

#### 7.4.1.1 Water Measurement

All of the Casitas MWD meters for surface water supplies and ground water supplies are metered. Accuracy of the District's meters is generally 98 percent to 102 percent. All of the Casitas MWD customers are metered.

#### 7.4.2 Volume-Based Pricing

The Casitas MWD currently has volume-based pricing for all accounts. Customers are billed monthly for 100 percent of the volume of water used. A copy of the Casitas MWD current rate schedule is provided in **Appendix G** (and available on the Casitas MWD website:

**<http://www.drivecms.com/uploads/casitaswater.org/2013-4.pdf>** .

The commodity rate for Agricultural accounts is \$0.624 to \$0.904 per 100 cubic feet (HCF) depending on elevation of the property. The commodity rate for Agriculture-Residential accounts is \$0.602 to \$1.770 per HCF depending on usage and elevation of the property. The commodity rate for all Residential accounts is \$0.602 to \$2.614 per HCF depending on usage and elevation of property. The commodity rate for Commercial, Industrial, Resale, Other, Temporary, and Recreational accounts is \$0.827 to \$1.785 per HCF depending on customer category, usage, and elevation of the property. In addition, the Casitas MWD has an additional meter fee per customer meter size (see copy of rate schedule in **Appendix G**). The monthly meter fee ranges from \$23.34 per month (5/8 to 3/4 inch) to \$812.42 (6-inch).



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**TABLE 7-1  
LIST OF EFFICIENT WATER MANAGEMENT PRACTICES**

<b>Critical EWMP</b>	
1	Measure the volume of water delivered to customers with sufficient accuracy
2	Adopt a pricing structure for water customers based on at least in part on quantity delivered
<b>Conditional EWMP</b>	
1	Facilitate alternate land use for lands with exceptionally high water duties or whose irrigation contributes to significant problems, including drainage
2	Facilitate use of available recycled water that otherwise would not be used beneficially, meets all health and safety criteria, and does not harm crops or soil
3	Facilitate the financing of capital improvements for on-farm irrigation systems
4	Implement an incentive pricing structure
5	Expand line or pipe distribution systems, and construct regulatory reservoirs to increase distribution system flexibility and capacity, decrease maintenance, and reduce seepage
6	Increase flexibility in water ordering by, and delivery to, water customers within operational limits
7	Construct and operate supplier spill and tailwater recovery systems
8	Increase planned conjunctive use of surface water and groundwater within the supplier service area
9	Automate canal control structures
10	Facilitate or promote customer pump testing and evaluation
11	Designate a water conservation coordinator
12	Provide for the availability of water management services to water users
13	Evaluate the policies of agencies that provide the supplier with water to identify the potential for institutional changes to allow for more flexible water deliveries and storage.
14	Evaluate and improve the efficiencies of the supplier's pumps

Notes:  
Source, CMWD, 2016.



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**TABLE 7-2  
STATUS OF EFFICIENT WATER MANAGEMENT PRACTICES**

<b>Critical EWMP</b>	
1 – Water Measurement	Implemented
2 – Volume-based pricing	Implemented
<b>Conditional EWMP</b>	
1 – Alternate Land Use	Being Evaluated
2 – Recycled Water Use	Not anticipated during current planning period
3 – On-Farm Irrigation Capital Improvements	Implemented
4 – Incentive Pricing Structure	Implemented for Residential and Residential-Agricultural accounts
5 – Infrastructure Improvements	Implemented
6 – Order/Delivery Flexibility	Implemented
7 – Supplier Spill and Tailwater Systems	Not applicable
8 – Conjunctive Use	Implemented
9 – Automated Canal Controls	Implemented
10 – Customer Pump Test/Evaluation	Implemented
11 – Water Conservation Coordinator	Implemented
12 – Water Management Services	Implemented
13 – Identify Institutional Changes	Implemented
14 – Supplier Pump Improved Efficiency	Implemented

Notes:  
Source, CMWD, 2016.



## **7.4.2 Conditional EWMPs**

### **7.4.2.1 Alternative Land Use**

The Casitas MWD could encourage alternative land use by agricultural customers within the service area. Alternative land uses could include alternative crop types and or fallowing of land. However, there are limited known properties with exceptionally high irrigation factors or whose irrigation contributes to significant problems located within the Casitas MWD boundaries. County of Ventura is the agency responsible for land use policies and changes.

### **7.4.2.2 Recycled Water**

Casitas MWD currently does not produce nor receive any recycled water. The Casitas MWD has considered recycled water to meet future water demands. The Ojai Valley Sanitary District (OVSD) and the City of Ventura provide wastewater collection and treatment within Casitas MWD's boundaries. **Section 4.4.5** provided additional details related to future use of recycled water within the Casitas MWD service area.

### **7.4.2.3 On-Farm Irrigation Capital Improvements**

The Casitas MWD has an agricultural irrigation efficiency program which offers financial incentives to local farmers for improving the efficiency of on-farm irrigation systems. Casitas MWD has a low-interest loan program for farmers to improve irrigation systems. The program assists farmers by providing them with technical assistance and reimbursing them for a percentage of the cost of equipment required for irrigation system retrofits that improve irrigation efficiency. Examples of new equipment include, but not limited to, the following: drip/micro irrigation, soil moisture sensors, tensiometers, etc.

### **7.4.2.4 Incentive-Pricing Structure**

The Casitas MWD currently has inclining block water rates for many of customer accounts. Inclining block rates are also known as conservation rate, where the cost per unit of water increases with the quantity of water used. Currently, Residential accounts and Residential-Agricultural accounts (up to 50 units) are charged based on an inclining block rate. The conservation rate for Agriculture-Residential accounts is \$0.602 to \$1.770 per HCF depending on usage and elevation of the property. The conservation rate for all Residential accounts is \$0.602 to \$2.614 per HCF depending on usage and elevation of property. All other customers are charged a volume-based rate depending on customer category and elevation of the property. The Casitas MWD has the legal authority to evaluate and set rates for its customers. See **Appendix G** for a copy of current water fees and charges.

### **7.4.2.5 Infrastructure Improvements**

The Casitas MWD has a Capital Improvement Plan. This Plan identifies a schedule for new facilities and equipment, major maintenance of existing facilities and equipment, and replacement projects.

### **7.4.2.6 Order/Delivery Flexibility**

The Casitas MWD operates the entire distribution system, including agricultural and urban customer demands, based on instantaneous water demands. The Casitas MWD does not currently require customers to place orders for delivery of water. The Casitas MWD does not currently require lead times for delivery of water. The Casitas MWD currently does not have customer allocations in place. Therefore, the Casitas MWD currently provides flexibility for meeting all customer water demands.



#### **7.4.2.7 Supplier Spill and Tailwater Systems**

The Casitas MWD delivers water to all of its customers through a distribution pipeline system that is not prone to the operational spills common to the canal delivery systems that serve many of the State's agricultural water users. Casitas MWD's agriculture customers generally produce minimal spill water and tailwater as the result of efficient irrigation practices. The Casitas MWD does not have any spill water or tailwater systems. Agricultural customers may implement spill water and tailwater capture practices on their private property.

#### **7.4.2.8 Conjunctive Use**

Conjunctive use of groundwater and surface water is the planned balanced use of both types of water, so that the supplies and use of both these types of water can be maximized. The Casitas MWD currently practices conjunctive use of its groundwater and surface water. Casitas MWD utilizes groundwater when it is available to supplement local surface water from Lake Casitas. Casitas MWD encourages customers to use local groundwater when available. Casitas MWD received a grant to improve the reliability of Senior Canyon Mutual Water Company's groundwater resources so they would rely less on Casitas MWD's surface water supply. This project will improve conjunctive use of local groundwater and surface water supplies.

#### **7.4.2.9 Automated Canal Controls**

The Casitas MWD delivers water to all of its customers through a distribution pipeline system. The Casitas MWD operations utilize SCADA controls on the distribution system including pipelines, meters, valves, pump stations, and reservoirs.

#### **7.4.2.10 Customer Pump Test/Evaluation**

The Casitas MWD encourages customers with irrigation pumps to contact Southern California Edison which offers free hydraulic pump tests. For information on pumps and SCE's Pump Test Program, contact SCE, 800-336-2822, or visit the following website: [on.sce.com/pumptest](http://on.sce.com/pumptest).

#### **7.4.2.11 Water Conservation Coordinator**

Casitas MWD has a full-time Water Conservation Manager, full-time Water Conservation Specialist, full-time Water Conservation Analyst, and part-time Water Conservation Coordinator. Casitas MWD staff provide many water conservation services including report preparation, respond to customer questions, perform water use surveys, administer rebate programs, coordinate public information and outreach programs, plan and participate in special events and education programs, and conduct public speaking. In addition, Casitas MWD also utilizes consulting firms to assist with the implementation of demand management measures.

#### **7.4.2.12 Water Management Services to Customers**

##### **7.4.2.12.1 Wholesale Agency Assistance Programs**

The Casitas MWD is a wholesaler and participates in regional programs. The Casitas MWD has participated in planning and programs concerning water demand management issues and urban water management in Ventura County and the State of California. Additional benefits of participation include enhanced water resource flexibility in the event of operational disruption, extended drought, or other emergency. Selected examples of regional participation include the following organizations:

- Ventura River Watershed Council



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- Association of Water Agencies of Ventura County
- Ventura County Watershed Coalition, IRWMP.

It is recommended that the Casitas MWD continue to participate in these organizations to reinforce relationships with other member agencies to enhance water resource flexibility and proper response to operational disruption, extended drought, or other emergency.

### **7.4.2.12.2 Public Information Programs**

The extensive Casitas MWD public information program promotes the water conservation ethic and informs the public of the benefits derived from conserving a valuable resource. See **Section 7.3.2** for details.

### **7.4.2.12.3 Real-Time Crop Irrigation Information**

The Casitas MWD included a link to the Soule Park Golf Course weather station on the web page, <http://data.weatherreach.com/StationDetail?StationID=68&TableTimeInt=60>. The weather page includes local and current air temperature, humidity, wind, evapotranspiration, precipitation, estimated irrigation requirement, and historical data. Additional irrigation information is made available to local farmers upon request. Casitas MWD regularly maintains the weather station instrumentation to ensure accuracy of information.

### **7.4.2.12.4 Provide Water Delivery Information to the Water Users**

The Casitas MWD provides water usage reports to water users upon request and are encouraged to request data as needed.

### **7.4.2.12.5 On-Farm Evaluations**

The Casitas MWD supports the availability of on-farm irrigation and drainage system evaluations. The Casitas MWD contract with the Ventura County Resource Conservation District's mobile laboratory for irrigation evaluation. As part of program participation, farmers are provided with free irrigation system audits/evaluations, which include recommendations for implementation of applicable best management practices and water use efficiency improvements. A potential future element of this program could provide financial incentives to farmers who choose to implement the recommendations made as part of the irrigation system audits/evaluation process.

### **7.4.2.13 Identify Institutional Changes**

The Casitas MWD is responsible for production of all local surface water. Therefore, the Casitas MWD has not had to contend with issues pertaining to water delivery and storage flexibility related to surface water.

The Casitas MWD actively attempts to identify programs that allow for voluntary transfers of water within and outside of its sphere of influence that facilitate greater water supply flexibility and storage. This includes evaluation and implementation of programs involving imported surface water and local surface water.

The Casitas MWD is engaged in a wide range of activities to ensure that customers continue to have a reliable supply of water in future years. These activities include, but not limited to, the following:



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Water Efficiency and Allocation Program, Water Supply and Demand Study (2004), Integrated Regional Water Management Planning, Urban Water Management Planning, Water Shortage Contingency Planning, and Demand Management Measures are all strategies employed by the Casitas MWD for sustaining adequate water supplies and managing local water demands.

**7.4.2.14 Supplier Pump Improved Efficiency**

The District's water loss control program includes main replacement, system water audits, system leak detection and repair, meter testing and replacement, valve exercising, and main flushing.

The Casitas MWD's efforts include the following actions:

- The Casitas MWD continues to meet current standards for apparent losses of below 5 percent, however using an in house method for calculating the losses.
- Estimated economic values of water loss will be generated using recent expense data and an avoided cost model (AWWA).
- Identified real losses will be analyzed and a determination will be made as to the cost effectiveness of potential water loss reduction actions. If any individual or group of actions are determined to be cost effective, the Casitas MWD will begin a program to implement such actions.
- All reported leaks, including the Casitas MWD side or customer's side, are currently addressed immediately. If a customer's use increases by 50 percent, after reading the meter, then the District flags the account and the customer is contacted to let them know they may have leak.