



## Rancho Murieta Community Services District

15160 Jackson Road • P.O. Box 1050 Rancho Murieta, CA 95683 • 916-354-3700 • Fax 916-354-2082

Visit our website at [www.rmcsd.com](http://www.rmcsd.com)

February 21, 2014

Katherine Mrowka, P.E.  
State Water Resources Control Board  
Division of Water Rights  
P.O. Box 2000  
Sacramento, CA 95812-2000

RE: Petition for Temporary Urgency Change - Permit 16762

Dear Ms. Mrowka:

As requested, we are happy to provide additional information in support of our Petition.

The Rancho Murieta community is fully metered and has been since its inception in the early 1970's. Being fully metered has allowed the District to segregate lot categories and assign water demand factors for each type of lot. Each year, as part of our 2020 Compliance effort, the District notifies the Top 10% water users and offers a free water audit. Since 2011, we have provided 100 water audits to residents. We also offer, as part of our 2020 Compliance Plan, several rebates designed to encourage use of water efficient appliances and to encourage other conservation efforts.

As requested, our per capita water use for 2013 is 268.3 GPCD. Please reference the attached graph of per capita usage, which is from our 2020 Compliance Plan model. The District is currently at our 2015 10% reduction goal of 268.3 GPCD.

As part of our ongoing internal water efficiency program, we compare water plant production against water demands from meter data. Our system loss is less than 10% and we are aiming to lower it by expanding our leak detection program.

On January 25, 2014, in response to the current drought, the District's Board of Directors followed the District's Water Shortage Contingency Plan (WSCP) (attached) and declared a Stage 2 - Water Warning instituting a 20% reduction in water consumption. In an effort to ensure the community heeds our mandatory Stage 2 - Water Warning requirement of 20% conservation, we are enforcing water waste sections of our District Code and the requirements of our WSCP. Enclosed is our staff memo to implement Stage 2 Tiered Pricing by initiating the required Proposition 218 resident notification of proposed rate increases.

*Serving the Community for over 30 years*

Board of Directors: Gerald Pasek, *President* • Roberta Belton, *Vice-President* • Betty Ferraro • Paul Gumbinger • Michael Martel  
General Manager • Edward R. Crouse

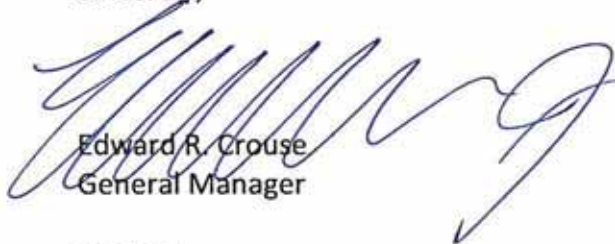
We also have a robust Drought Response and Conservation Program. It includes a dedicated drought update web page (screen shot attached) with key information on our reservoir levels, conservation level attained, FAQs, rebate information, and water efficiency tips.

The attachments listed below provide additional documentation of the District's ongoing efforts to use water wisely and efficiently.

- Per Capita water use graph
- Water Shortage Contingency Plan
- Integrated Water Master Plan Update
- 2020 Compliance Plan
- Water Code sections related to water use efficiency, water waste and drought response
- Drought web page screen shot
- List of rebates
- Water enforcement door tag
- Tiered pricing memo

If you have any questions or need any additional information, please contact me.

Sincerely,

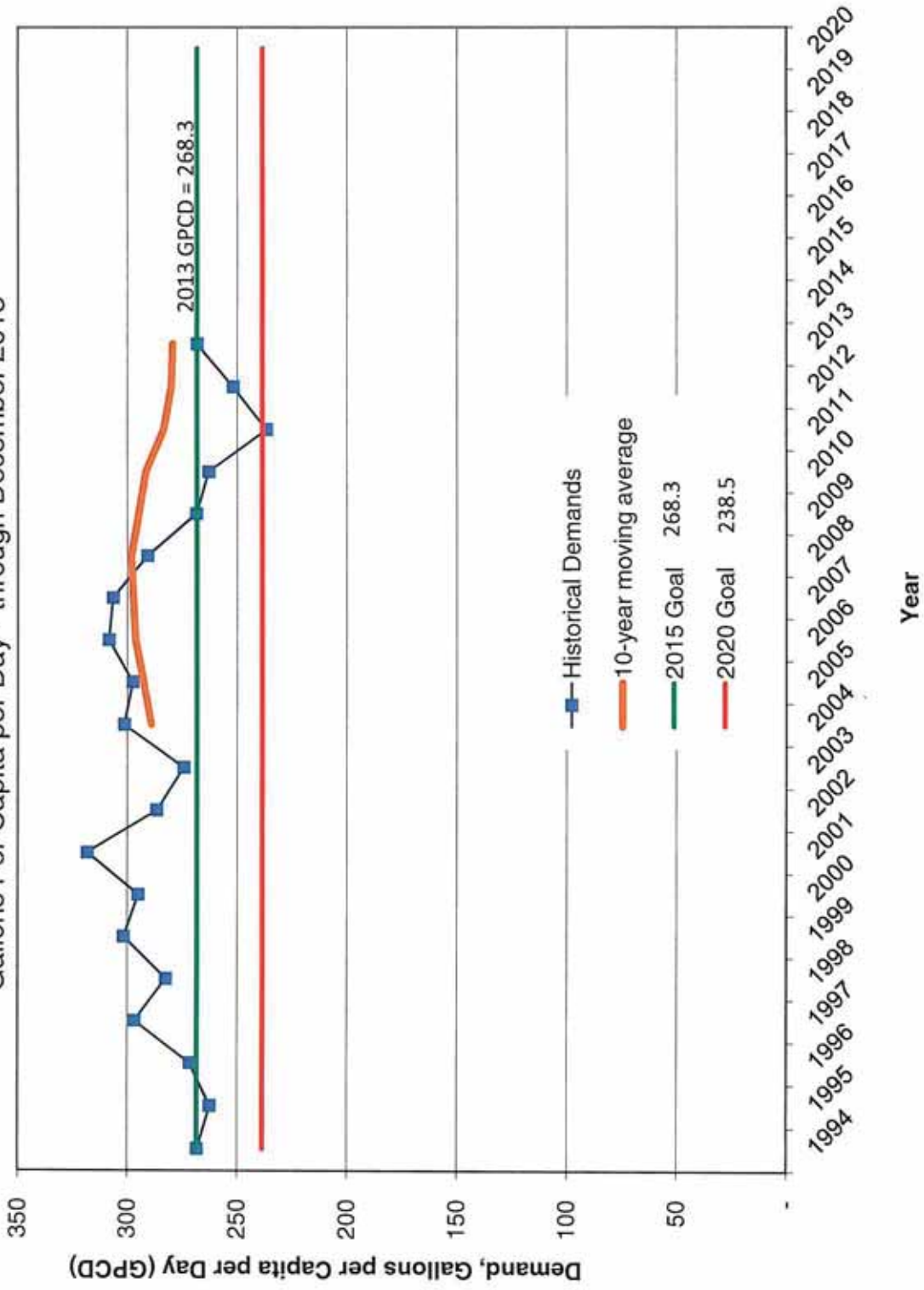


Edward R. Crouse  
General Manager

ERC/DG

Enclosures

Gallons Per Capita per Day - through December 2013



# RANCHO MURIETA COMMUNITY SERVICES DISTRICT

## WATER SHORTAGE CONTINGENCY PLAN

September 14, 2012

The purpose of this Water Shortage Contingency Plan (Plan) is to provide direction on specific actions to be taken by the Rancho Murieta Community Services District (District) staff and customers in response to increasingly severe water supply shortage conditions. **In case of water system failure or water quality issues requiring immediate response and action refer to the District's Emergency Operations Procedures (see Attachment A).**

The District intends to use this Plan to meet the requirements of the California Water Code, Section 10632 (see Attachment B). A water shortage contingency analysis based on the historic driest three-years on record was previously prepared as part of the Integrated Water Master Plan (Brown and Caldwell, 2010). The current IWMP Update presents water supply demands and drought responses for the minimum available supply based on existing (2,504) and approved lots.

In an effort to provide a uniform basis for requesting cutbacks in consumption due to cutbacks in supply from minor to emergency conditions, the District has a program of four (4) stages of actions based on the severity of the water shortage. The District previously adopted shortage mitigation measures, which are included in District Code Chapter 14 - Water Code, updated most recently in 2012.

This Plan is consistent with District Policies, District Codes and the District's Integrated Water Master Plan Update (Brown and Caldwell, 2010). The names for stages in this Plan are consistent with other water purveyors in the Sacramento region.

This Plan is applicable to a range of short and long term emergency conditions when supply volume or system delivery capability is impaired, including but not limited to:

- Main break or other distribution system failure
- Water treatment plant failure
- Natural disaster (flood, earthquake, wind damage, etc.)
- Water quality issue with supply reservoirs or system contamination
- Drought conditions

### IMPLEMENTATION OF THE PLAN

The District has three (3) main objectives when faced with water shortage conditions as described below. This Plan specifically addresses the first objective related to monitoring and addressing shortage conditions through tracking supply conditions and, when projecting shortfalls, the means to invoke customer responses to reduce demand. Given the changing conditions of fiscal needs

and latest information on water savings technologies, the District plans to further prepare for longer duration droughts by completing a Drought Financial Plan and Drought Communications and Education Plan when shortages appear imminent.

1. Monitoring and Declaration of Water Shortages/Drought
  - a. Drought indicators
  - b. Index for trigger levels
  - c. Staged actions for reducing customer demands
2. Drought Financial Plan
  - a. Sustainability of funding for District operations
  - b. Tiered pricing implementation to achieve reductions in demand and provide revenues to cover cost of service in times of shortage
3. Drought Communication Outreach and Education Plan
  - a. Media response
  - b. Water use by lot categories
  - c. Drought checklist for customer actions

### **RESPONSE TO IMPAIRED TREATMENT AND DISTRIBUTION SYSTEM CONDITIONS**

Short-term supply interruptions may invoke the need for District staff to alert customers of any stage of shortage, listed further below in this document, as conditions warrant. This determination will be made by the General Manager. The appropriate stage of action will be determined based on the severity and projected duration of the shortage. In other words, an emergency condition where more than 50% of the supply is unavailable may warrant an alert for Stage 4 – Water Emergency. This message would be broadcasted as an alert out to the entire community (using the District’s CodeRED auto-dialer messaging system) and notices would be issued via written notice (letter or door hangers) and other means to advise customers of the water shortage and anticipated duration of the shortage. All customers will then be noticed when the shortage is resolved.

### **RESPONSE TO LONG TERM SUPPLY SHORTAGE DUE TO DROUGHT CONDITIONS**

The drought actions called for are based on the current water supply capacity (including Clementia Reservoir) and estimates for demands needed in times of drought based on the 3,274 approved connections, of which 2,504 currently exist. As the District monitors accomplishments in reaching the 20% reduction in water use by 2020 goal of 238 gallons per capita per day (gpcd), as called for in District Policy 2011-05, the District will update this Plan. The baseline 10-year average (as defined in Senate Bill SB X7-7) is 298 gpcd stated in the 2020 Compliance Plan (Brown and Caldwell, 2010).

The expected demand cutback by stages included within this Plan does not currently include consideration of the 20% reduction goal given it has not yet been achieved. At minimum, it is anticipated that this Plan will be updated when the community achieves 50% of its reduction goal to 268 gpcd or 10% reduction in gross per capita per day demand.

Overall drought preparedness actions to be taken by the District include:

- Understand and comply with legal and regulatory requirements for drought preparedness.
- Review and update Water Shortage Contingency Plan at a minimum of every 5 years or as needed based on new monitoring data, new supply, operational changes, or change in expected water demands.
- Provide education and outreach to customers on efficient and reasonable uses of water and best ways to save, with increased intensity in messaging during times of drought.
- Continue District water loss management procedures (leak identification and repair).
- Enforce prohibition of wasted water per the District Code – Chapter 14 – Water Code, Section 13.
- Continue conservation policies and water-efficient plumbing codes.
- On an as needed basis and at a minimum of every 5 years, review and refine the rate stabilization policy relating to drought impacts.
- Update educational materials on an as needed basis.

## **DISTRICT DROUGHT MONITORING**

Every year the climate varies and the District monitors potential flood and drought conditions. The District's water rights permit allows for pumping between November 1 and May 31 each year. In normal water years at our current number of water connections, the District typically starts pumping to fill the supply reservoirs in February. When forecasted water supply conditions are indicating a dry year, it may prompt the District to take action for changes in pumping operations and/or notifying customers to cut back on demand.

To check on water supply forecasts, the District tracks both State resources and local metrics to best inform and assist in their decision-making on calling for implementation of each drought stage. One such resource is the Department of Water Resources (DWR), State Climatologist, who does careful monitoring of the predicted water supply and flood management forecasts using real time weather monitoring stations throughout the Central Valley. Also, there are two (2) primary climate monitoring station indices tracked for California: Sacramento River 8-Station Index and San Joaquin River 5 Station Index. The District will primarily monitor the San Joaquin River Index which includes monitoring that encompasses the Cosumnes River watershed. Information on the drought status is posted online through the California Data Exchange Center and updated regularly based on the most recent weather station data available (including National Weather Service resources).

Another metric is the standard scale for severity of drought that has been defined by the National Drought Mitigation Center's Drought Monitor (<http://droughtmonitor.unl.edu>) and DWR has adapted this scale for use in California as shown below:

Percentile	Drought Monitor Category	
0.00 - 0.02	<b>D4</b>	Drought - Exceptional
0.02 - 0.05	<b>D3</b>	Drought - Extreme
0.05 - 0.10	<b>D2</b>	Drought - Severe
0.10 - 0.20	<b>D1</b>	Drought - Moderate
0.20 - 0.30	<b>D0</b>	Abnormally Dry
0.30 +	<b>N</b>	Normal
Source: Department of Water Resources, 2012 <a href="http://cdec.water.ca.gov/cdecapp/drought/get5SI.action">http://cdec.water.ca.gov/cdecapp/drought/get5SI.action</a>		

The District will monitor DWR’s California Data Exchange Center’s (CDEC) provided information to determine when droughts may be imminent or occurring and review forecasts based on predictions by DWR weather models. The DWR provided information for the San Joaquin River watershed is posted online at: <http://cdec.water.ca.gov/cdecapp/drought/get5SI.action>.

The District also has the ability to perform local monitoring for the flows on the Cosumnes River with the USGS gage station data at Michigan Bar. An index based on historical range of flows for any given month between November and June is available to aid the District in determining when below average flows are present and indicate potential issues with water supply availability. The District will closely track flows in dry years due to the probability of impacts on the District’s ability to pump to the reservoir system. In addition, once a drought has been declared and the necessary drought stage is set, the District has the ability to closely monitor water usage with its automatic meter reading system to validate if the expected demand response in needed cutbacks is occurring within the District’s service area. If demand cutbacks are not occurring or the supply conditions are worsening, then the District will need to move to the next stage of shortage response measures.

**STAGES OF ACTION**

The stage determination and declaration shall be made by the General Manager. One of five (5) stages shall always be in effect; given the initial Stage “Normal” is targeting everyday conservation.

A change of stage requires that the Board of Directors be notified and a public notice be posted at District headquarters. Written notification will be provided to all customers at least 10 days prior to a Stage 2 - Water Warning with mandatory measures going into effect **and any higher Stages 3 and 4 will also be notified in writing to customers** Below is a summary table of stages and shortage mitigation actions that will serve as a guideline based water supply conditions. Given that water supply conditions may change rapidly due to decreasing river flows being observed through District monitoring (which project potential restrictions on pumping and supply shortages), some stages may be skipped if conditions warrant the need for faster reductions in demands to respond to the shortage conditions.

Table 1. Water Shortage Contingency Plan Summary

Water Supply Conditions	Shortage Stage	Objective	Response actions	Key Water Savings Opportunities
None 0% Total Supply Reduction	Normal - Ongoing conservation measures; Prohibition of Wasted Water in effect.	Public awareness	Normal actions	<ul style="list-style-type: none"> <li>Use everyday water conserving behaviors (i.e., stop off taps when not using water, avoid wasting water).</li> <li>Check for and repair all leaks</li> <li>Change to more water efficient using appliances and fixtures.</li> <li>Maintain and adjust irrigation systems</li> <li>Plant more native and water efficient plants.</li> </ul>
Slightly Restricted Water Supplies (below normal) Up to XX% Total Supply Reduction	Shortage Stage 1 - Water Alert	Initiate public awareness of predicted water shortage and encourage conservation	Encourage voluntary measures to decrease "normal" demand up to 10%	<ul style="list-style-type: none"> <li>Use sacrificial water scarcity behaviors (i.e., shorter showers, etc.)</li> <li>More aggressively check for and repair all leaks (instead of seasonally or monthly, perform weekly)</li> <li>Reduce irrigation times on controllers</li> <li>Consider fixture and appliance changes</li> <li>Wash cars in recycled water facility</li> </ul>
Moderately Restricted Water Supplies Up to XX% Total Supply Reduction	Shortage Stage 2 - Water Warning	Increase public understanding of worsening water supply conditions, move to initial mandatory shortage mitigation measures	Encourage voluntary measures to decrease "normal" demand up to 25%	<ul style="list-style-type: none"> <li>Continue to look for all ways to reduce water use (increasingly shorter showers, less toilet flushing, etc.)</li> <li>Cutback on watering times and days</li> <li>Consider alternative sources of supply, like implementing a graywater system for reusing water outdoors.</li> <li>Consider if certain plants may not need to be watered at all or as much (e.g. deficit irrigate lawns).</li> </ul>
Severely Restricted Water Supplies Up to XX% Total Supply Reduction	Shortage Stage 3 - Water Crisis (severe prohibitions) on use	Ensure that water use is limited to essential uses only	Enforce extensive restrictions on water use and implement water rationing to decrease demand up to 50%	<ul style="list-style-type: none"> <li>Implement all possible ways to reduce water use (increasingly shorter showers, less toilet flushing, etc.)</li> <li>Further cut back on watering times and days</li> <li>Consider if certain plants may not need to be watered at all (e.g. stop irrigating lawns).</li> <li>Make more challenging upgrades to more efficient appliances and fixtures</li> </ul>
Extremely Restricted Water Supplies More than % Total Supply Reduction	Shortage Stage 4 - Water Emergency (increasing severe prohibitions with mandatory restrictions on use)	Ensure that water use is limited to health and safety purposes.	Enforce extensive restrictions on water use and implement water rationing to decrease demand on the order of 50%	<ul style="list-style-type: none"> <li>Use water for only essential domestic sanitation needs.</li> <li>No outdoor watering (or alternatively a water rationing scheme)</li> <li>Extreme water sacrificing behaviors (limit all behavioral uses of water (i.e., fewer showers)</li> <li>Maximize on-site reuse of water (graywater, rainwater capture, etc.) as appropriate for uses while maintaining health and sanitation needs.</li> </ul>



STAGE “NORMAL” - NORMAL SUPPLY AND ON-GOING CONSERVATION

The District’s supply or distribution system is able to meet all the water demands of its customers in the near future. Based on the 2020 Compliance Plan Update (Brown and Caldwell, 2010), the District calls for efficient and reasonable use and District staff implementation of conservation measures will continue as planned.

<b>Triggering Mechanism</b>	<b>Normal water year conditions forecasted by Department of Water Resources, Office of State Climatologist and/or U.S. Bureau of Reclamation.</b> Full storage anticipated in all lakes and ability to provide full water supply to all customers.
<b>Consumption Limits</b>	<b>Service area-wide target for reduction:</b> 0.5-1% reduction per year for 10 years per the District’s 2020 Compliance Plan. Voluntary conservation encouraged and participation in the District’s water conservation program.
<b>District Actions</b>	During Stage “Normal”, all normal conservation programs would continue.
<b>Requested Consumer Action</b>	Follow the basic conservation measures set forth in under Normal Supply Conditions of the four-stage conservation program described herein.
<b>Penalties</b>	For the first and subsequent water waste violations, penalties will be issued according to District Water Code – Chapter 14, Section 13.

STAGE 1 - WATER ALERT

There is a probability that the District’s supply or distribution system will not be able to meet all the water demands of its customers.

<b>Triggering Mechanism</b>	Any short-term water system operational issues deemed by the General Manager to warrant calling this stage based on a minor shortage targeting the need for a 5-10% cutback in demand. For long-term supply conditions, evidence of an abnormally dry water year conditions forecasted for the San Joaquin River by Department of Water Resources, Office of State Climatologist and/or U.S. Bureau of Reclamation. Less than full storage is anticipated in all lakes and there may be inability to provide full water supply to all customers.
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<b>Consumption Limits</b>	All customers would be encouraged to reduce consumption by 5 - 10% for the duration of the water alert.
<b>District Actions</b>	Continue the basic conservation program elements, and initiate public information campaign. Explain the supply condition to the public. Request voluntary drought curtailment of water use through customer changing to more water efficient behaviors (trim water times, take shorter showers, etc.).
<b>Requested Consumer Actions</b>	Customers will be asked to implement Stage 1 shortage mitigation measures and adhere to the District Water Code – Chapter 14, Section 10.02, Water Waste.
<b>Penalties</b>	For the first and subsequent water waste violations, penalties will be issued according to District Water Code – Chapter 14, Section 13.

**Stage 2 - WATER WARNING**

The District's supply or distribution system will not be able to meet all the water demands of its customers.

<b>Triggering Mechanism</b>	Any short-term water system operational issues deemed by the General Manager to warrant calling this stage based on a moderate shortage targeting the need for an 11-25% cutback in demand. For long-term supply conditions, evidence of more severe drought conditions are forecasted by the Department of Water Resources, and/or goal of 10% demand cutbacks in Stage 1 is not achieved, and/or low flow conditions are predicted for the Cosumnes River that may impact pumping capability.
<b>Consumption Limits</b>	<b>Service area-wide target for reduction: 11 - 25%.</b> Customers will be educated by the District on ways to achieve reduced consumption based on their own home or business unique opportunities to save for the duration of the water warning condition.
<b>District Actions</b>	Continue conservation program and District actions listed through Stage 1, mandate compliance to Stage 2 Shortage mitigation measures of the District's Four Stage Plan. Continue with a more rigorous public information campaign. Explain supply shortage and disseminate technical information as needed.

**Requested Customer Actions** Customers will be notified in writing and through other media (e.g. District web site, etc.) at least 10 business days in advance that Stage 2 shortage mitigation measures are in effect and compliance will be required.

**Penalties** For the first and subsequent water waste violations, penalties will be issued according to District Water Code – Chapter 14, Section 13.

### STAGE 3 - WATER CRISIS

The District's supply or distribution system is not able to meet all the water demands of its customers under Stage 2 - Water Warning requirements.

**Triggering Mechanism** Any short-term water system operational issues deemed by the General Manager to warrant calling this stage based on a severe shortage targeting the need for a 26-50% cutback in demand. For long-term supply conditions, evidence of increasingly severe or persistent drought conditions are occurring or forecasted by the Department of Water Resources, and/or goal of 25% demand cutbacks in Stage 2 is not achieved, and/or low flow conditions for the Cosumnes are impacting pumping capability.

**Consumption Limits** **Service area-wide target for reduction: 26 - 50%.** Customers will be educated by the District on ways to achieve reduced consumption based on their own home or business unique opportunities to save for the duration of the water crisis condition until the water crisis has been declared over.

**District Actions** Continue all conservation program and District action elements through Stage 2, and mandate adherence to all shortage mitigation measures required under Stage 3 of the District's Four Stage Shortage Mitigation Measures. Institute a rationing program through an allocation.

**Requested Customer Actions** Customers will be requested to comply with all Stage 3 shortage mitigation measures listed in the Five (5) Stage Shortage mitigation measures.

**Penalties:** For the first and subsequent water waste violations, penalties will be issued according to District Water Code – Chapter 14, Section 13.

## STAGE 4 - WATER EMERGENCY

The District is experiencing a major failure of a supply, storage or distribution facility.

### **Triggering Mechanism**

Any short-term water system operational issues deemed by the General Manager to warrant calling this stage based on an extreme shortage targeting the need for a more than 50% cutback in demand. For long-term supply conditions, evidence of exceptional, extreme or persistently severe drought conditions are occurring or forecasted by the Department of Water Resources, and/or goals for demand cutbacks in Stage 3 are not being achieved, and/or low flow conditions for the Cosumnes are severely impacting pumping capability.

### **Consumption Limits**

*Conditions that would lead to a Stage 4 drought are highly unlikely. **Service area-wide target for reduction: Greater than 50%.***

Customers will be educated by the District on ways to achieve reduced consumption based on their own home or business unique opportunities to save for the duration of the water crisis condition. All customers may be required to restrict consumption to 50% (or more) of normal demands for the duration of the water emergency. If conditions warrant, the District may implement a rationing program for an indefinite period of time to ensure, to the extent possible, that there is adequate water for essential uses.

### **District Actions**

Continue all conservation programs and District action elements through Stage 3, and mandate that all Stage 4 shortage mitigation measures be implemented immediately and strictly enforced.

Intensify media outreach program with regular updates on the state of the emergency.

### **Requested Customer Actions**

Customers will be required to comply with all Stage 4 shortage mitigation measures.

### **Penalties**

For the first and subsequent water waste violations, penalties will be issued according to District Water Code – Chapter 14, Section 13. Written notice shall be issued to customers using more than their customer category allocation (defined as more than 20% above allowable use)

and without a District approved variance (i.e., medical need). While maintaining adequate minimum fire flows for those homes with fire sprinklers, the District may install a flow restrictor on the service line if customer average daily usage is not reduced to within the allocation threshold after 10 days from the date of the written notice, a flow restrictor may be installed for a minimum of 10 days. The flow restrictor may remain in place during the irrigation season until December 1<sup>st</sup> or the District may suspend service temporarily until the cause of the violation is corrected. The flow restrictor may be removed based on the General Manager's approval and payment of all outstanding penalty and water service charges have been paid. A minimum of a reconnection fee will be charged as defined in District Water Code - Chapter 14. A customer may appeal one (1) time to the District Board of Directors.

# RANCHO MURIETA COMMUNITY SERVICES DISTRICT

## WATER CONSERVATION MEASURES STAGE DEFINITIONS

### **“Normal” – Normal Water Supply and On-going Conservation**

The District’s supply or distribution system is able to meet all water demands of its customers in the immediate future. All customers are being encouraged to use water for beneficial and reasonable uses. District customer demands are being monitored for meeting 20% reduction by 2020.

### **Stage One – Water Alert**

There is a probability that the District’s supply or distribution system will not be able to meet all the water demands of its customers and the District’s ability to pump to reservoirs system may be impacted.

### **Stage Two – Water Warning**

The District’s supply or distribution system is forecasted to not be able to meet all the water demands of its customers and District ability to pump to reservoirs system is forecasted to be or is actively being impacted.

### **Stage Three – Water Crisis**

The District’s supply or distribution system is projected to not be able to meet all the water demands of its customers under **Stage 2 - Water Warning** requirements and District ability to pump to reservoirs system predicted to be or actually being impacted

### **Stage Four – Water Emergency**

The District is projecting an imminent failure of a water supply, storage, or distribution facility based on an estimate of supply remaining.

## **RANCHO MURIETA COMMUNITY SERVICES DISTRICT WATER CONSERVATION MEASURES**

### **“Normal” Supply and On-going Conservation Requested of Every Household or Business**

1. Water will be used for beneficial uses; all unnecessary and wasteful uses of water are prohibited as described in District Code – Chapter 14 Water Code. Take advantage of the free information available from the District on how to use water efficiently, read a water meter, repair leaks, and irrigate efficiently. Up to date information is provided through the District’s web site.
2. Use water efficiently. Water shall be confined to the consumer’s property and shall not be allowed to run off to adjoining property or to the gutter. Care shall be taken not to water past the point of soil saturation. Customers are encouraged to report observed water waste. Two (2) to three (3) days per week using cycle and soak methods is sufficient for landscapes in the Rancho Murieta Community.
3. Prohibit free-flowing hoses for all uses including vehicle and equipment washing, ponds, and evaporative coolers. Use a hose and bucket method for washing and attach automatic shut-off devices on any hose or filling apparatus in use.
4. Regularly check and maintain irrigation systems, repair leaks, and adjust spray heads to provide optimum coverage and eliminate avoidable over-spray. Reduce minutes of run-time for each irrigation valve if water run-off (gutter flooding) is occurring.
5. Automatic sprinkler system timers shall be set to operate during cool evening hours and early morning hours when evaporation rates are low and on off-peak electrical hours (ideally between 3 a.m. and 6:00 a.m.). Customers are encouraged to reduce scheduled watering minutes.
6. Repair all leaks promptly. Leaking consumer pipes or faulty sprinklers shall be repaired within seven (7) days or less if warranted by the severity of the problem and subject to penalties as described in District Code – Chapter 14, Water Code, Section 13.03.
7. Properly maintain all pools, spas, and ornamental fountains/ponds to avoid drain and refill. All water features and pools shall be equipped with a recirculating pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations. Customer requests must be substantiated in writing by a pool consultant and approved by the District.
8. Avoid washing of streets, parking lots, driveways, sidewalks, or buildings, except as necessary for health or sanitary purposes. Use a high efficiency pressurized water broom for these purposes and not a conventional pressure washer or hose with a shut-off nozzle.

9. U.S. Environmental Protection Agency (EPA) WaterSense labeled water efficient plumbing fixtures, water efficient appliances, and high efficiency irrigation techniques, such as drip, are encouraged, as described in District Code – Chapter 14 – Water Code, Section 11 and found online at: [www.epa.gov/watersense](http://www.epa.gov/watersense).



# RANCHO MURIETA COMMUNITY SERVICES DISTRICT

## WATER SHORTAGE MEASURES STAGE DEFINITIONS

### Stage One - Water Alert

**Goal is 10% Reduction per Average Household or Business**

1. All Stage “Normal” actions remain in force; unless revised herein.
2. All customers are encouraged to report observed water waste. The District’s Security Officers will be notifying District operations of any observed water waste for follow-up action.
3. Prohibit washing of streets, parking lots, driveways, sidewalks, or buildings, except as necessary for health or sanitary purposes. High efficiency pressurized water brooms are required for these purposes, conventional pressure washers or hoses with shut-off nozzles are not allowed.
4. Landscape irrigation shall be watered efficiently, preferably with a weather based irrigation controller or hose timer. If a weather based controller is not installed, change the minutes of run-time for irrigation valves consistent with fluctuations in weather as determined by evapotranspiration data provided by the District/Regional Water Authority.
5. Watering is limited to a maximum of **three (3) days per week** if and when necessary and no watering schedule (e.g., additional minutes) increases are permissible on designated watering days. Three (3) days per week water is sufficient for landscapes in the Rancho Murieta Community. Customers are to use cycle and soak watering with up to three (3) short watering cycles. Watering days need to be based on the following schedule.
  - ◆ Customers in Watering Group A may irrigate only on **Monday, Wednesday and Friday.**
  - ◆ Customers in Watering Group B may irrigate only on **Tuesday, Thursday and Saturday.**
  - ◆ **Sunday irrigation is not allowed.**
6. Residents are encouraged to reduce indoor water use by limiting showers. Washing full clothes washer and dishwasher loads.
7. Restaurants shall serve water only upon specific request.

# RANCHO MURIETA COMMUNITY SERVICES DISTRICT

## WATER SHORTAGE MEASURES STAGE DEFINITIONS

### Stage Two - Water Warning

**Goal is 25% Reduction per Average Household or Business**

1. All Stage “Normal” and Stage 1 actions remain in force; unless revised herein.
2. Landscape irrigation shall be limited to a maximum of **two (2) days per week** when necessary and no watering schedule (e.g., additional minutes) increases are permissible on designated watering days. Two (2) days per week water is sufficient for landscapes in the Rancho Murieta Community. Customers are to use cycle and soak watering with up to three short watering cycles. Watering shall be based on the following schedule.
  - a. Customers in Watering Group A may irrigate only on **Tuesdays and Saturdays**.
  - b. Customers in Watering Group B may irrigate only on **Wednesdays and Sundays**.
  - c. Watering times will be between the hours of 8:00 p.m. to 8:00 a.m. only.
3. Restaurants shall serve water only upon specific request.
4. Residents are strongly encouraged to reduce indoor water use by limiting showers, clothes washing and dish washing.
5. Tiered rate pricing will be instituted at this stage to promote more equitable and efficient water use and in an effort to meet demand cutback goals. A drought surcharge may also be included as needed to maintain revenue stability and/or assist with achieving demand reduction goals as needed based on approved District policies and District Code – Chapter 14 – Water Code.

# RANCHO MURIETA COMMUNITY SERVICES DISTRICT

## WATER SHORTAGE MEASURES STAGE DEFINITIONS

### Stage Three - Water Crisis

#### Goal is 25-50% Reduction per Average Household or Business

1. All Stage “Normal,” 1 and 2 actions remain in force; unless revised herein.
2. All customers are encouraged to report observed water waste. District security will be notifying District operations of any observed water waste for follow-up action.
3. Landscape irrigation shall be limited to a maximum of **one (1) day per week** when necessary and no watering schedule (e.g., additional minutes) increases are permissible on designated watering days. One (1) day per week water is sufficient for landscapes in the Rancho Murieta Community. Customers are to use cycle and soak watering with up to three short watering cycles. The schedule shall be based on the following **water day** schedule based on the following schedule.
  - ◆ Customers in Watering Group A may irrigate only on **Saturdays**.
  - ◆ Customers in Watering Group B may irrigate only on **Sundays**.
4. No irrigation is permitted on **Mondays, Tuesdays, Wednesdays, Thursdays, and Fridays**.
5. No watering of new turf grass or replacement turf grass.
6. Vegetable garden may be hand watered.
7. No potable water from the District’s system shall be used to fill or refill new swimming pools, artificial lakes, ponds, or streams or other water feature until the **Water Crisis** has been declared over.
8. Prohibit water use for all ornamental water features (i.e. ponds and fountains).
9. No washing of automobiles or equipment shall be permitted unless done at a commercial establishment that uses recycled or reclaimed water.
10. Tiered pricing will be implemented to ensure drought mitigation goals are met. A drought surcharge may also be included as needed to maintain revenue stability based on approved District policies and District Water Code.

11. Cleaning of sewers, streets or flushing fire hydrants is restricted by any party other than emergency personnel or District employees and subject to District approval.
12. While maintaining adequate minimum fire flows for those homes with fire sprinklers, flow restrictors may be installed for excessive users persistently exceeding their water use above District defined rationing allocation for their customer category. Flow restrictors shall be one (1) gallon per minute (gpm) or less which is adequate for domestic sanitation needs.

# RANCHO MURIETA COMMUNITY SERVICES DISTRICT

## WATER SHORTAGE MEASURES STAGE DEFINITIONS

### Stage Four - Water Emergency

**Goal is 50+% Reduction per Average Household or Business**

1. All Stage "Normal," 1, 2, and 3 actions remain in force, unless revised herein.
2. All customers are encouraged to report observed water waste. Aggressive enforcement of water waste and no landscape irrigation shall include penalties up to mandatory misdemeanor citations with fines as noted in Section 13 of the Districts Water Code.
3. Landscape and garden irrigation shall not be allowed unless taken from a bucket from indoor water graywater sources (e.g., bath or clothes washer rinse water).
4. Cleaning of sewers, streets or flushing of fire hydrants is prohibited except in case of emergency and for essential operations.
5. No potable water from the District's system shall be used for construction purposes such as dust control, compaction, or trench jetting.
6. No new or replacement landscaping of any kind can be installed.
7. Tiered pricing with drought surcharges will be in effect.
8. All uses of potable water from a fire hydrant are prohibited except for: fighting fires, District-approved human consumption essential water quality flushing, and toxic clean-up purposes.
9. While maintaining adequate minimum flows per regulatory requirements, flow restrictors will be installed for excessive users persistently exceeding their water use above District defined rationing allocation for their customer category. Flow restrictors shall be one (1) gallon per minute (gpm) or less which is adequate for domestic sanitation needs.

ATTACHMENT A

**EMERGENCY OPERATING PROCEDURES DUE TO CATASTROPHIC FAILURE**

## ATTACHMENT B

Excerpt from the California Water Code, Urban Water Management Planning Act:  
[www.leginfo.ca.gov](http://www.leginfo.ca.gov)

10632. (a) The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier:

(1) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions that are applicable to each stage.

(2) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.

(3) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

(4) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.

(5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

(6) Penalties or charges for excessive use, where applicable.

(7) An analysis of the impacts of each of the actions and conditions described in paragraphs (1) to (6), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

(8) A draft water shortage contingency resolution or ordinance.

(9) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

(b) Commencing with the urban water management plan update due December 31, 2015, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

## 2010 INTEGRATED WATER MASTER PLAN UPDATE

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Prepared for  
Rancho Murieta Community Services  
District, Rancho Murieta, CA  
October 18, 2010



## 2010 INTEGRATED WATER MASTER PLAN UPDATE

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Prepared for  
Rancho Murieta Community Services District, Rancho Murieta, CA  
October 18, 2010

Job Number 138708.200



10540 White Rock Road, Suite 180  
Rancho Cordova, California, 95670

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## LIST OF ABBREVIATIONS

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AB	Assembly Bill
ADWF	average dry weather flow
BC	Brown and Caldwell
CARB	California Air Resources Board
CDO	Cease and Desist Order
CDPH	California Department of Public Health
cfs	cubic feet per second
County	Sacramento County
District	Rancho Murieta Community Services District
DU	dwelling unit
DWR	California Department of Water Resources
EDU	equivalent dwelling unit
ft.	feet
GPCD	gallons per capita day
gpd	gallons per day
HDR	HDR Engineering, Inc.
I&I	inflow and infiltration
IPR	indirect potable reuse
IWMP	Integrated Water Master Plan
mgd	million gallons per day
PDO	Pacific Decadal Oscillation
Project	Integrated Water Master Plan Project
RMCC	Rancho Murieta Country Club
RMCS	Rancho Murieta Community Services District
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SB7	The Water Conservation Act of 2009
SMUD	Sacramento Municipal Utilities District
SVM	Shared Vision Model
SWTR	Surface Water Treatment Rule
UCD	University of California, Davis
WDR	Waste Discharge Requirements
WTP	Water Treatment Plant
WWRP	Wastewater Reclamation Plant

# 2010 INTEGRATED WATER MASTER PLAN

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## EXECUTIVE SUMMARY

The Rancho Murieta Community Services District (District) has initiated this Integrated Water Master Plan (IWMP) Project (Project) to update their 2006 IWMP due to recent changes in state legislation regarding water use targets and greenhouse gas emissions, federal and state guidance regarding recycled water, and to address climate change risks by modeling future droughts' estimated impacts on the District's water supply reliability. The 2010 IWMP and Shared Vision Model (SVM) MS Excel source files are an update that fully replaces the IWMP that was issued in 2006. Where applicable, information from the 2006 IWMP has been retained, and only where needed, Brown and Caldwell (BC) has updated information or expanded on the analysis from the last IWMP planning effort performed by HDR Engineering, Inc. (HDR).

The updated IWMP serves as a guide for the District to address the following recent and emerging issues:

- Reductions in per capita water demand by 2020 according to The Water Conservation Act of 2009, known as the Senate Bill X7-7 (SB7) legislation passed in November 2009
- Climate change impacts on supply availability
- Greenhouse gas emission regulations impacts on system operations
- State recycled water policy influence on District's future expansion of water recycling
- Trend towards higher density development lowering water demands per dwelling unit
- New water balance modeling approach that expands analysis on supply reliability, with updated demands and supply options

The goals of the 2010 Project are to:

- Update the 2006 water balance evaluation of the District's water supply, potable water, treated effluent, and recycled water assets. BC has expanded the analysis to assess more options for maximizing the beneficial use of all of District's water resources by evaluating more alternatives for drought augmentation.
- Update the water supply and potable/recycled water needs based on three growth scenarios and projected reductions in potable water demand due to the recent legislation. A comprehensive background on SB7 and District plans to address these new water conservation requirements are presented in the 2020 Compliance Plan (Brown and Caldwell, July 2010).
- Analyze potential higher water supply shortfalls in times of drought due to the observed and forecasted changes in water supply availability due to climate change. (This requires evaluating shifts in runoff hydrology due to climate change impacts on the natural variability of flows on the Cosumnes River. These shifts may affect the District's raw water pumping to the reservoirs in the future due to more limited withdrawals from the Cosumnes River based on climate change hydrology scenarios provided by the University of California, Davis.)
- Amend the policy recommendations from 2006 IWMP prepared by HDR, as a comprehensive plan for maximizing the use of District water resources while simultaneously addressing the community's needs during drought conditions and with reservoir draw downs.
- Explain the potential impacts of state requirements for greenhouse gas emissions regulations (e.g., California Assembly Bill (AB) 32) on utility operations.



## Existing and Future Supply Conditions

The District was formed in 1982 to provide water supply, wastewater, storm drainage and flood control services to the community of Rancho Murieta. The area served by the District encompasses approximately 3,500 acres. Land uses within this service area provide for the development of approximately 2,000 acres for single-family residences, townhouses, apartments, duplexes and manufactured homes.

The District's water supply consists of seasonal diversion from the Cosumnes River that is normally diverted to three storage reservoirs (Calero, Chesbro, and Clementia). In addition to other use limitations, the total amount of water taken from the Cosumnes River cannot exceed 6,368 acre-feet (ft) per year.

A summary of key information developed for current and future buildout conditions is presented in Table ES-1 pertaining to raw water supply, potable water demand, wastewater production and recycled water. Assuming SB7 compliance will be achieved, raw water supply and water treatment needs may lower by 20 percent as compared to without SB7 compliance and sewage treatment by 8 percent due to reduced indoor potable demands leading to lower wastewater generation and recycled water treatment, storage and production quantities. The lower end of the ranges presented in Table ES-1 represent conditions if SB7 targets are achieved and the upper end of the ranges are based on the original assumptions from past planning studies (with updated forecasts due to minor adjustments in projected connections and/or equivalent dwelling units (EDUs) for the medium growth scenario).

Table ES-1. Summary of Existing and Future Buildout Conditions			
Service and Parameter	Units	Existing Conditions	Buildout Conditions <sup>1</sup>
<b>Raw Water Supply</b>			
Projected Demand	acre-ft/year	2,010	3,640-4,550
Available Water Rights	acre-ft/year	6,368	6,368
<b>Water Treatment</b>			
Projected Maximum Demand	mgd	3.4	5.3-6.7 <sup>2</sup>
Available Capacity	mgd	3.5	5.6-7.0
<b>Wastewater Treatment</b>			
Projected Production (ADWF) <sup>3</sup>	mgd	0.5	0.97-1.05
Available Capacity (ADWF) <sup>3</sup>	mgd	1.55	1.55
<b>Recycled Water Production</b>			
Projected Peak Month Demand	mgd	1.5	1.4-1.5
Available Capacity	mgd	3.0	3.0
<b>Recycled Water Storage</b>			
Projected Storage Needs	acre-ft	430	1,000-1,100
Available Storage Volume	acre-ft	756	756
Additional Storage Requirements	acre-ft	None	
<b>Recycled Water Treatment</b>			
Projected Production	acre-ft/year	565	1,020-1,110
Golf Course Irrigation Demands	acre-ft/year	550	550
Excess Recycled Water	acre-ft/year	Supplementary water required	

<sup>1</sup> When assuming SB7 compliance will be achieved, buildout conditions may lower demand by 20 percent (represented by lower end of range) for raw water supply and water treatment needs and 8 percent lower for wastewater quantities, due to reduced indoor potable demands leading to lower wastewater generation.

<sup>2</sup> Based on planning water demands of 750 gpd per equivalent dwelling unit. Actual average demands have been approximately 680 gpd per equivalent dwelling unit based on data from 2004 to 2009 for large estate lots. If recycled water is used for landscape irrigation in the future, demand factors will reduce, and an offset in treatment plant production will occur.

<sup>3</sup> Average dry weather flow (ADWF)

## Existing and Future Water Demands

Given the population is estimated to stay constant between 2010 and 2015, due to economic conditions resulting in the community not further developing approved lots, water demands would also remain relatively constant during that timeframe (without the water conservation activities targeting gallons per capita per day (GPCD) reductions by the year 2020). In 2030, based on the projection shown in Figure ES-1, water demand increases from 1,710 acre-ft per year based on 2010 conditions to 3,659 acre-ft per year at buildout, assuming that demand reduction measures are not implemented.

The projected water demand without achieving 2020 targets is based on the conservative estimate of 750 gpd per EDU. The actual water use per EDU is lower than 750 gpd. Using the higher estimate of 750 gpd is a conservative approach in planning future water demand. The projected water demand with meeting the 2020 target of 20 percent reductions in per capita demand is based on achieving an estimated demand of 600 gpd per EDU. The planning assumption adjustment with 2020 compliance of 600 gpd per EDU is based on 80 percent of the planning assumption baseline of 750 gpd per EDU for large estate lots greater than 12,000 square feet. Both the projected and actual water production includes 10 percent system losses as higher than average conservative planning number.

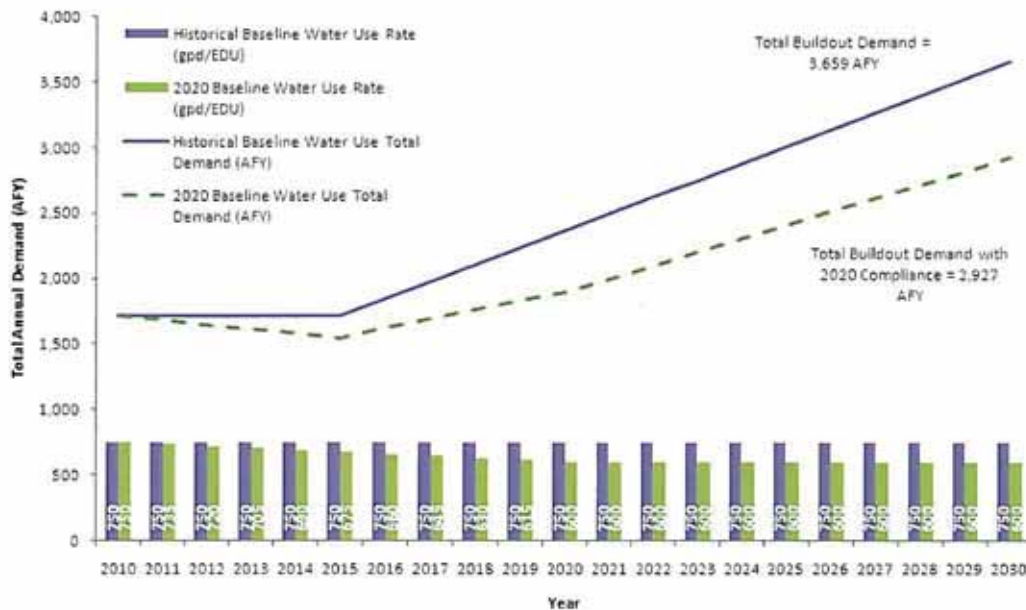


Figure ES-1. Total Buildout Water Demand Projections without and with 2020 GPCD Targets Achieved

## Water Supply Reliability to Meet Future Demands

A water balance model was initially developed for the 2006 IWMP to estimate reservoir volumes and water levels during both normal and drought conditions. Due to changes in projected water demands and the goal of testing additional drought and climate change hydrology scenarios, the water balance model was revised and expanded.

Figures ES-2 and ES-3 show projected usable water volumes (i.e., reservoir capacity with flashboards installed but not considering dead storage) and levels in the reservoirs for existing and future conditions.

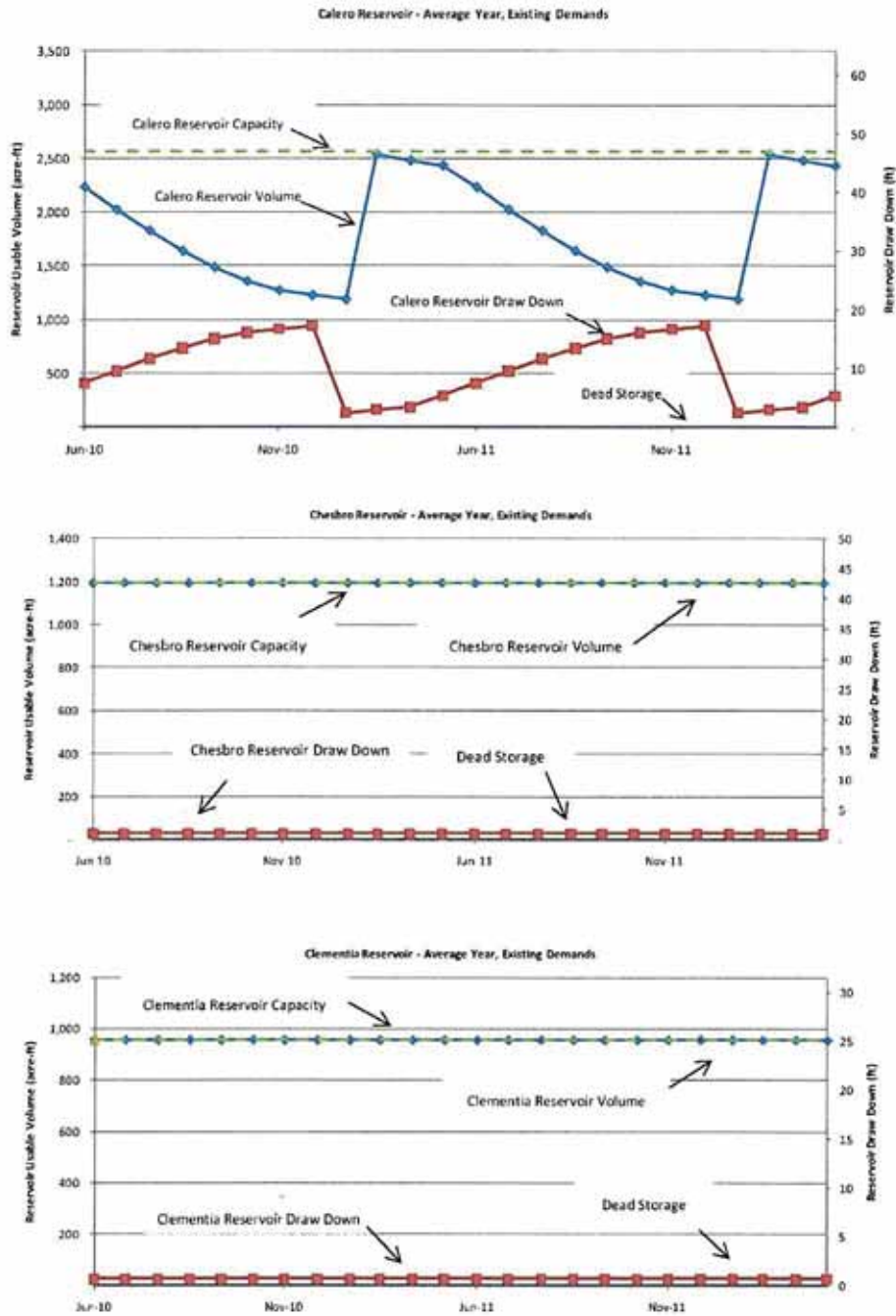


Figure ES-2. Estimated Usable Reservoir Volume and Water Levels – Existing Conditions

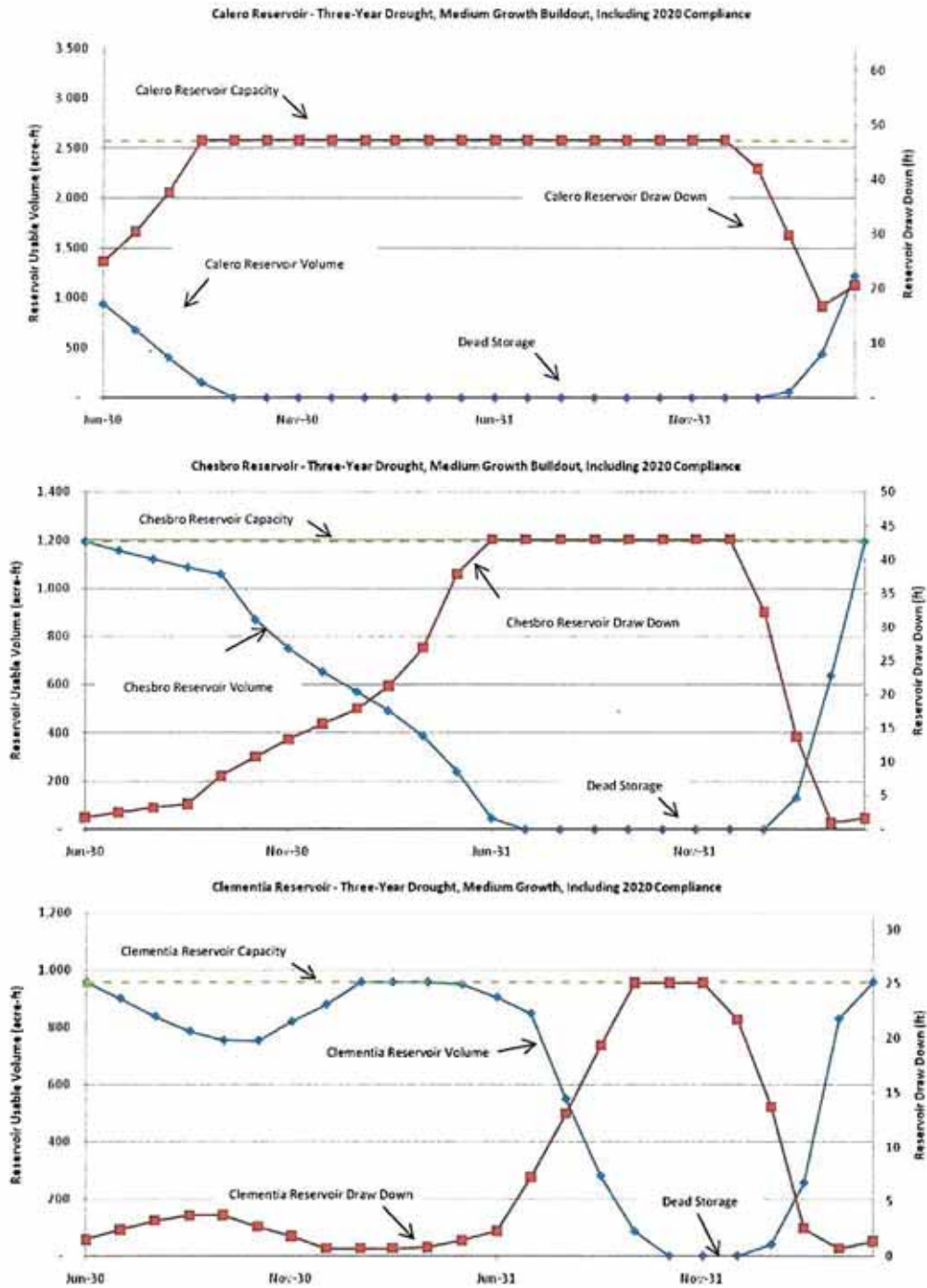


Figure ES-3. Estimated Usable Reservoir Volumes and Water Levels – Future Conditions

The following summarizes key results derived from the reservoir water balance model:

### Demand Cutbacks

RMCS D uses the existing Policy 90-2 as a baseline scenario for future cutbacks in extreme drought. This policy equates to a 50 percent reduction in Year 2020 and beyond for extreme drought conditions. A 50 percent reduction in extreme drought conditions is reflective of 2020 compliance and an estimated 37.5 percent demand reduction during extreme drought.

The RMCS D Water Shortage Contingency Plan includes that Stages 4 and 5 drought conditions target a 50 percent reduction of water use. However, stakeholders expressed interest in testing within the IWMP model whether or not a 25 percent reduction in Stages 4 and 5 drought (i.e., "extreme drought") conditions may suffice. If combined with 2020 compliance targets (i.e., 20 percent reduction by 2020), a 25 percent demand cutback would result in a compounded reduction of 40 percent.

### Existing Conditions

- Based on the water supply scenario with three consecutive average water years (i.e., hydrology modeled for years 1935, 1935, and 1935, to reflect three years of average water supply) and current water demands, the following conclusions can be made:
  - Calero reservoir's volume is sufficient to meet the community's water supply needs.
  - Chesbro reservoir is generally expected to be full throughout the year since it is replenished by Calero.
  - Clementia reservoir experiences a maximum draw down of 5 feet due to naturally occurring evaporation and seepage.
- Based on the water supply scenario that reflects the three consecutive driest water years on record (i.e., hydrology for 1976, 1977, and 1978) and current water demands, the following conclusions can be made:
  - Calero and Chesbro reservoirs are capable of meeting the community's water supply needs under severe drought conditions (three driest year sequence of 1976, 1977, 1978 drought event), provided that water use in the community is reduced by 25 percent (or more) in Stages 4 and 5 drought conditions.
  - If demand cutback is limited to 25 percent during Stages 4 and 5 drought conditions, Calero and Chesbro reservoirs reach dead storage, and about 200 acre-ft/yr (a maximum of 5 feet of drawdown) is lost from Clementia Reservoir to evaporation.

### Future Buildout Conditions (Year 2030) with Medium Growth Scenario

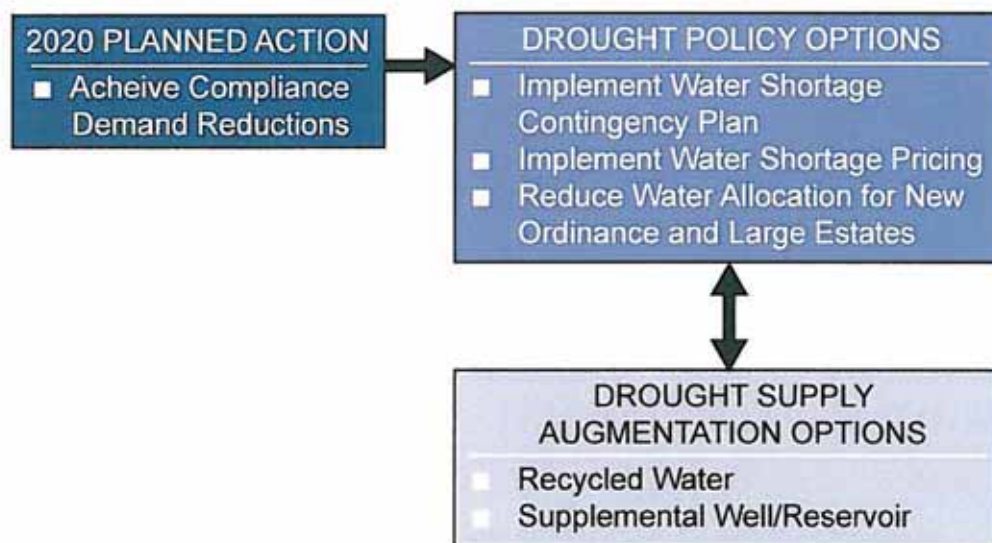
- Only Calero reservoir is needed to meet the community's water needs during average year hydrologic conditions for buildout demand (i.e., Year 2030) under the medium growth scenario. Clementia reservoir experiences a maximum draw down of 5 feet due to naturally occurring evaporation and seepage.
- Based on the scenario with water supply that reflects the three consecutive driest water years on record (i.e., hydrology for 1976, 1977, and 1978), compliance with 2020 water use targets, and medium growth buildout, the following conclusions can be made:
  - There is no estimated shortfall when demands are curtailed by a 50 percent compounded reduction, including 37.5 percent maximum demand cutback in Stages 4 and 5 drought conditions and 2020 compliance. However, Clementia would have to be used.
  - If demand cutback is limited to a compounded 40 percent (i.e., a 25 percent maximum demand cutback during Stages 4 and 5 drought conditions and 2020 compliance), all three reservoirs reach dead storage, and supplemental supply options would need to be considered to overcome an estimated 690 acre-ft per year of shortfall.
- An additional water supply of 300 acre-ft is suggested as contingency storage. This is the level of shortfall estimated under severe drought conditions with climate change under the "warm dry" scenario with a

compounded 60 percent demand cutback (i.e., 50 percent maximum demand cutback in Stages 4 and 5 drought and 2020 compliance). Under this extreme worst case drought condition all three reservoirs are expected to reach dead storage. The additional 300 acre-ft estimate includes a safety factor approximately equal to one peak month's water demand (or two average month's demand) in addition to the estimated drought deficit, and also assumes water use in the community is reduced overall by 50 percent (i.e., beyond the 2020 compliance).

- In order to have more abundant supply to help mitigate any potential impacts of future climate change, an additional 300 acre-ft may be considered for a total contingency storage of 600 acre-ft. Given the economies of scale for developing supplemental well or surface water supply at a volume of 300 acre-ft versus 600 acre-ft, the District may consider adding this larger amount of contingency storage for the incremental cost increase.
- To allow for use in times of drought, RMCS D would need to pursue CDPH approval of Clementia Reservoir for drinking water supply.

## Recommendations

Workshops open to the community were held with District staff on February 19, May 5, June 18, and July 21, 2010 to review past policy recommendations, updated assumptions, model results and updated policy and supply augmentation options. As described in Section 5, a total of 11 strategies were reviewed. Of these strategies and policies, five were considered viable options and were selected for further consideration. Figure ES-4 summarizes the drought mitigation strategies recommended for the District to adopt or implement.



*Figure ES-4. Recommended IWMP Drought Mitigation Strategies*

The recommended integrated solution is comprised of potential strategies described below. The first two options are policy solutions. Future consideration of costly physical improvements is also recommended. At this time, it is envisioned that the existing policy options will be implemented as adopted and that new options will be adopted. In addition, the District should pursue a more in-depth feasibility assessment of the

physical improvement options with one or both of these supply augmentation options pursued further in the future.

- **Achieve 2020 Compliance Plan Targets to Lower Water Demands:** SB7 requires water demands statewide to be reduced 20 percent by 2020. Achieving this level of demand reduction will effectively increase supply reliability, as overall demand on the system at buildout is projected to be more than 700 acre-ft less than projected without compliance with 2020 GPCD targets. This is a policy that is already being planned for adoption by the District Board and implemented between 2011 and 2020.
- **Drought Policy Solutions:**
  - Implement Water Shortage Contingency Plan: the policy is based on achieving up to a 50 percent level of water conservation during severe drought conditions, since this was established as the baseline conservation rate in both this and past planning projects and is the planning requirement under state law for systems with more than 3,000 connections.
  - Water Shortage Pricing: implement a shortage pricing mechanism in the form of a drought surcharge to assist with encouraging compliance with mandatory water reductions and reduced water allocations in later stages of the water shortage contingency plan.
  - Reduced Water Allocations based on New County Landscape Ordinance and for Large Estates: support the County's implementation of the new landscape ordinance for new lots and promote water conscious landscaping throughout the community. In addition, the District should implement a reduced water allocation policy that provides the ability to influence water demands associated with highest future growth classification. The policy may also serve as the basis for other modified allocations for other lot classifications. The policy developed should describe the level of service to be provided during normal conditions for specific or all lot classifications.
  - Recycled water policy: consider adopting a policy regarding recycled water use for new connections.
- **Drought Supply Augmentation Options:** All physical improvements which maximize the use of all available water resources to provide additional supply for normal, drought, and emergency conditions, and address the community's long-term treated effluent disposal needs should be considered. The following three options should be evaluated further for feasibility, in no particular order or priority:
  - Expand recycled water service to new residential customers: this option would offset potable demands and help achieve 2020 compliance in addition to aiding in effluent disposal needs. This option also has the direct benefit of allowing more storage to be maintained during times of drought, thus increasing water supply reliability. Also can consider expanding recycled water service to more existing customers, such as parks and/or commercial area, depending on cost feasibility and timing and availability of excess recycled water beyond residential landscape irrigation.
  - New well supply: investigate new groundwater supply to address normal and drought water supply reliability needs. Given the community is wholly supplied via surface water, groundwater wells would serve as emergency supply option under normal conditions and supplemental supply in times of shortage in surface water supplies.
  - New surface reservoir: a new reservoir may be supplied with diverted river water provided the new reservoir could be added to the existing permit. This new reservoir could only be used during droughts and may be used in conjunction with the supplemental well supply option.

## Recommended Next Steps

The recommended next steps are described below:

- Approve IWMP as basis for water planning.
- Re-adopt District Board Policy 90-2 (Appendix B) to determine conservation level and number of units served and trigger for when new augmentation supplies are needed.
- Select appropriate augmentation projects and size, including prudent reserve; set the new fee.
- Refine water shortage contingency plan to better define timing of drought stages, related to reservoir levels, early warning forecasts, etc.
- Re-engineer Water Treatment Plant (WTP) and Wastewater Reclamation Plant (WWRP) phase planning, as well as recycled water transmission and storage facilities.
- Develop direction for future studies and policy changes.
- Pursue CDPH approval of Clementia Reservoir for drinking water supply in times of drought.



## 2020 COMPLIANCE PLAN

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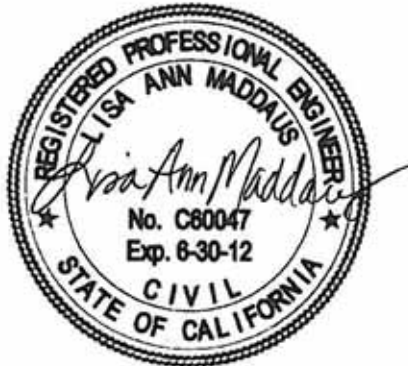
Prepared for  
Rancho Murieta Community Services District  
Rancho Murieta, CA  
September 15, 2010

## 2020 COMPLIANCE PLAN

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Prepared for  
Rancho Murieta Community Services District  
Rancho Murieta, CA  
September 15, 2010

Project Number: 138708.100



10540 White Rock Road, Suite 180  
Rancho Cordova, CA, 95670

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## LIST OF ACRONYMS AND ABBREVIATIONS

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AF	AF
AFY	acre-feet per year
BCA	business case analysis
CII	commercial, industrial, and institutional
cf	cubic feet
cfs	cubic feet per second
DWR	California Department of Water Resources
EDU	equivalent dwelling units
ET	evapotranspiration
GPCD	gallons per capita day
gpd	gallons per day
RMCSO	Rancho Murieta Community Services District
SB7	Senate Bill X7-7
SWRCB	State Water Resources Control Board
UWMP	urban water management plan

## 2020 COMPLIANCE PLAN

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### EXECUTIVE SUMMARY

Rancho Murieta Community Services District (RMCS D) has developed this 2020 Compliance Plan to help meet new mandates for water conservation that have been incorporated into recent state legislation. The Water Conservation Act of 2009 is legislation passed as Senate Bill X7-7 (SB7). Enacted in November 2009 by California lawmakers, SB7 requires water suppliers throughout the state to decrease per capita urban potable water use by 10 percent by December 31, 2015 and by 20 percent by December 31, 2020.

#### **Threats to Water Diversions**

The Rancho Murieta community relies on water diversions from the Cosumnes River directly upstream of the California Bay-Delta estuary that is currently threatened and was the driver behind the Water Conservation Act of 2009. The District's main water right permit 16762 was issued in 1969 and amended in 1980. In 2001, the permit was renewed and extended with no new permit requirements through 2020 in consideration that the community was not at full build-out. It now appears likely that in 2020, the community will not have reached full build-out and the permit will need to be extended again. Given the statewide goal of reducing water consumption by 20% by 2020, due consideration will be given to RMCS D's compliance or lack thereof in meeting the reduction goal. If compliance is not shown, under one potential worst case scenario, the yearly diversion and storage could be cut back by 20%.

#### **State SB7 Requirements for Water Suppliers**

SB7 has two provisions related to the compliance with 2015 interim and 2020 final targets that RMCS D should be aware of that drive the need for meeting gallons per capita(persons) per day (GPCD), reduction targets sooner than later:

- "On and after July 1, 2016...an urban water supplier would not be eligible for water grants or loans administered by the state." (Water Code §10608.56 (a))
- "Each urban retail water supplier shall meet its urban water use target by December 31, 2020." (Water Code §10608.24 (b))
- "...an urban retail water supplier's failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceedings prior to January 1, 2021." (Water Code §10608.8 (a)(2)).

The concern with the new California Water Code Section 10608.8 (a)(2) is that water rights are based on reasonable and beneficial use and non-compliance with GPCD targets with demand in excess of a defined target could be perceived as wasteful and unreasonable and give cause to reduce a water purveyor's water right.

The California Department of Water Resources (DWR) requires that the results of the SB7 analysis be included in water agencies' respective urban water management plans (UWMPs). California urban water suppliers are required to develop UWMPs if the water supplier serves over 3,000 connections or delivers over 3,000 acre-feet per year to its customers.

RMCS D currently serves 2,604 connections including residential and commercial and parks connections. However, Sacramento County has approved development of 520 lots within RMCS D's service area, plus an additional 150 units currently being considered for approval, bringing the total lots likely to be approved in

the near future to 670 units. Considering the planned development, RMCS D will be required to develop a UWMP in compliance with all applicable sections of SB7 once more than 3,000 acre-feet per year or 3,000 connections are served. Plans are due every five years. The next plans are due in 2015 and 2020 and required to include information on SB7 compliance.

### Voluntary Compliance by RMCS D Customers to Meet SB7 Requirements

SB7 requirements apply to the RMCS D that drive an overall goal for community-wide water demand reduction. The state requirements refer to the metric on a per person (capita) amount of water demand per day, which is based on total water demand in the service area divided by number of days in the year, divided by the total number of persons served, presented in terms of gallons per capita per day. The compliance with GPCD targets required by SB7 is voluntary on behalf of each individual property owner, and RMCS D will need to proceed with more aggressive voluntary conservation measures over time (leading up to tiered pricing), if monitoring of progress of the total annual water demand in the service area is indicating that targets are not forecasted to be achieved. RMCS D will be encouraging reductions in customer water demand through mainly educational efforts and conservation incentives. Over the course of the next 9 years, the RMCS D Board may also strengthen some existing policies or adopt new policies to help achieve these targets. Compliance with some of these Board policies may not be voluntary, such as requirements to avoid wasteful practices (e.g., enforcement of Board policy 87-9 related to excessive runoff from irrigation and sprinkling and associated fines for water waste violation).

### Historical Baseline GPCD and Selection of Method 1 Target for 2020 Compliance

In accordance with SB7 requirements, RMCS D's historic baseline potable and non-potable water uses were analyzed in terms of GPCD from 1994 through 2009. The analysis was performed using total treated and recycled water production by year and estimated population for 1995 through 2009. The highest 10-year average potable GPCD was 298 gpcd, which was for the ten year 1999 to 2008 period.

SB7 allows for four different methods of calculating GPCD targets for reduction in potable water demand. The GPCD of 298.1 is considered the baseline water use for Method 1. Based on a 10 percent reduction for 2015 and a 20 percent reduction for 2020, the 2015 and 2020 target GPCD values are 268.3 and 238.5, respectively (Table ES-1).

Table ES-1. Historic Water Use in Terms of GPCD and SB7 Method 1 Targets

Year	Estimated Population	Total Production (AFY)	Water Use (GPCD)	10-Year Average (GPCD)	Method 1 GPCD Target for 2015 (GPCD)	Method 1 GPCD Target for 2020 (GPCD)	Percent Reduction Necessary for 2020 Compliance
1994	3,621	1,088	268.2	--	--	--	-
1995	3,780	1,111	262.4	--	--	--	--
1996	3,959	1,205	271.7	--	--	--	--
1997	4,080	1,356	296.8	--	--	--	--
1998	4,190	1,326	282.6	--	--	--	--
1999	4,571	1,545	301.8	--	--	--	--
2000	4,869	1,610	295.2	--	--	--	--
2001	4,888	1,743	318.4	--	--	--	--
2002	5,351	1,718	286.6	--	--	--	--



RMCS D's intent to supply 100% of the golf course's irrigation demand with recycled water, even in drought and low water years. In addition, RMCS D is currently and has historically been engaged in promoting water conservation awareness to its customers. These efforts include articles in its Pipeline Newsletters, Website information and links, offering toilet and washer rebates, and posting Door Tags to notify excessive water wasters.

### **Evaluation of Conservation and Recycling Measures**

At the RMCS D Board Workshop on February 19, 2010, a comprehensive list of conservation measures and recycling options were reviewed and it was decided which measures were to be included for consideration and those to be further refined with a business case analysis.

To compare the results of the analysis the demand reduction measures, the measures and associated water savings and cost estimates were packaged together into three different scenarios (Scenarios A, B, and C). Three alternatives were presented:

- Scenario A – comprehensive list of conservation measures only
- Scenario B – fewer conservation measures and recycled water for new connections
- Scenario C – fewer conservation measures and recycled water for new connections and existing parks

Each of the scenarios were designed to serve as a blueprint for RMCS D to develop a strategy for meeting 2020 GPCD targets.

### **Selection of Preferred Scenario A – Conservation Measures Only**

At the Board's direction at the workshop on June 18, 2010, Scenario A was selected as the preferred alternative for implementation based on the conservative assumption that recycled water may not be available prior to 2020 due to the economic downturn and delays in residential development.

Scenario A includes the following demand reduction measures:

- Measures 1 through 10 – Education/Outreach
- Measure 11 – Residential Plumbing Kits
- Measure 12 – HET Rebates
- Measure 13 – High Efficiency Washers
- Measure 14 – Residential Water Surveys
- Measure 15 – Weather Controllers
- Measure 16 – Irrigation Retrofits
- Measure 17 – Landscape Retrofit Program
- Measure 19 – Large Landscape Water Budget Incentive
- Measure 20 – Large Landscape Survey
- Measure 21 – Large Landscape Irrigation Upgrades
- Measures 23-33 – Utility Operations, Rules and Regulations

A description of each measure included in Scenario A is included in Table ES-2, along with estimated water savings in terms of GPCD savings in 2015 and 2020. More detailed information on the conservation measures is presented in Section 5 and further details on water savings assumptions are provided in Appendix B and detailed 2020 Model results for Scenario A are presented in Appendix C.

Table ES-2. Scenario A – Conservation Measures Only

Measure	2015 Water Savings Estimate (GPCD) <sup>1</sup>	2020 Water Savings Estimate (GPCD) <sup>1</sup>
Measures 1 through 10 – Education/Outreach	3.0	7.5
Measure 11 – Residential Plumbing Kits	0.5	0.5
Measure 12 – HET Rebates	1.6	1.5
Measure 13 – High Efficiency Washers	0.9	2.2
Measure 14 – Residential Water Surveys	6.5	6.5
Measure 15 – Weather Controllers	7.4	12.1
Measure 16 – Irrigation Retrofits	3.1	5.2
Measure 17 – Landscape Retrofit Program (Cash-for-grass)	3.0	5.5
Measure 19 – Large Landscape Water Budget Incentive	1.5	1.2
Measure 20 – Large Landscape Survey	1.5	1.5
Measure 21 – Large Landscape Irrigation Upgrades	0.5	1.0
Measures 23-33 – Utility Operations, Rules and Regulations	7.5	14.9
Total Estimated Water Savings	36.9	59.5
Total GPCD Target Difference	29.8	59.6

<sup>1</sup> Note: GPCD Water Savings Estimates may be converted to average savings per household by multiplying gallons per day by 2.35 persons per household (based on 2000 Census data).

### Progress Monitoring Needs for Tracking 2020 Compliance

The water demand from RMCSD customers fluctuates year to year based predominately on climate conditions and, as a result, the annual average GPCD will fluctuate. It will be important to track activities and also water demand to understand the level of progress being made in reducing overall GPCD towards meeting the selected 2020 target. RMCSD plans to use components of the 2020 Compliance Model developed (see Section 3) and the MS worksheets for each conservation measure being actively used to track estimated water savings based on the number of activities (or interventions) taken in a given year. A copy of this MS Excel based model will be included on a CD attached to the Final Plan.

### Conclusions

At the direction of the RMCSD Board, the intention for the community and the RMCSD is to be proactive in meeting 2020 targets in order to ward against the worst case scenario of the water rights for the community being reduced in the future. SB7 was explicit in the opportunity for the State Water Resources Control Board (SWRCB) to begin taking administrative or legal action after January 1, 2021 against those agencies not compliant with 2020 GPCD targets. Since the RMCSD will need to appeal for an extension for its water right permit in 2020, the timing of the appeal will bring scrutiny from SWRCB on the Rancho Murieta community's perceived wise or wasteful uses of potable water based on whether or not the 2020 GPCD target was achieved.

Each year a progress update will be used to analyze the basis for meeting the 2020 GPCD target and an annual work plan and budget will be developed to stay on track or pursue additional measures and will be brought before the Board for adoption and to reconfirm the goal of meeting the SB7 mandate.

# **RANCHO MURIETA COMMUNITY SERVICES DISTRICT**

DISTRICT CODE

CHAPTER 14

## **THE WATER CODE**

INSTALLATION, CONNECTION AND USE OF THE  
DISTRICT WATER SYSTEM



Amended June 19, 2013  
By Ordinance 2013-01

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Model Water Efficient Landscape Ordinance effective January 1, 2010 or, when adopted, the least as effective as Sacramento County Water Efficient Landscape Requirements (Chapter 14.10). The District allows the use of all types of water efficient plant materials, including artificial turf. Allowable water efficient plant materials are identified on the District approved plant list. The District prohibits any plants considered invasive to the local waterways, such as invasive plants listed by the California Invasive Plant Council. *(Amended by Ordinance 2011-04)*

**10.06 Air Conditioning and Refrigeration Devices**

All new or replacement air conditioning and refrigeration systems using water from the District distribution system or discharging to the District sewer system, installed after the effective date of this Chapter, shall be equipped with water conservation devices of sufficient capacity to limit makeup water to a maximum 0.2 GPM per ton of rated capacity under full loading at a maximum summer temperature of 105 degrees Fahrenheit. *(Amended by Ordinance 2011-04)*

**10.07 Evaporative Coolers**

Evaporative coolers installed after the effective date of this Chapter shall be equipped with a re-circulating pump. The makeup supply line shall be equipped with an inlet valve, which shall open according to manufacturer specifications. Makeup water shall be used intermittently, and not continuously, as required due to discharge that shall occur only on an as needed basis to remove high total dissolved solids (TDS) levels on the order of more than 2,000 parts per million (ppm). *(Amended by Ordinance 2011-04)*

**10.08 Swimming and Wading Pools**

All swimming or wading pools installed after the effective date of this Chapter, which have a capacity of over two thousand gallons of water, and which use water from the District distribution system or which discharge water into the District sewer system, shall be equipped with re-circulating systems and approved filters. Pool covers are recommended but not required.

**SECTION 11.00 Water Waste**

**11.01 Wasteful Use of Water**

Any of the following acts or omissions, whether intentional, unintentional, willful or negligent, shall constitute the wasteful use of water *(Amended by Ordinance 2011-04)*:

- a. Water flowing away from a property caused by excessive application(s) of water beyond reasonable or practical irrigation rates, duration of application, or other than incidental applications to impervious surfaces.
- b. Causing or permitting an amount of water to discharge, flow, run to waste into or flood any gutter, sanitary

sewer, water course or storm drain, or to any adjacent lot, from any tap, hose, faucet, pipe, sprinkler, or nozzle. In the case of irrigation, "discharge," "flow" or "run to waste" means that water is applied to the point that the earth intended to be irrigated has been saturated with water so that additional applied water then flows over the earth. In the case of washing, "discharge," "flow" or "run to waste " means that water in excess of that necessary is applied to wash, wet or clean the dirty or dusty object, such as an automobile, sidewalk, or parking area.

- c. Allowing water fixtures or heating or cooling devices to leak or discharge water.
- d. Maintaining ponds, waterways, decorative basins or swimming pools without water recirculation devices or with known leaks, both seen and unseen.
- e. Discharging water from, and refilling, swimming pools, decorative basins or ponds in excess of the frequency reasonably necessary to maintain the health, maintenance or structural considerations of the pool, basin or pond, as determined by the General Manager.
- f. Overfilling of any pond, pool or fountain which results in water discharging from the pond, pool or fountain.
- g. Continued operation of an irrigation system that applies water to an impervious surface or that is in disrepair.
- h. Use of a water hose not equipped with a control nozzle capable of completely shutting off the flow of water except when positive pressure is applied.
- i. Irrigation of lawns or landscaping when it is raining.
- j. Irrigating lawns or landscaping between the hours of 10:00 a.m. and 10:00 p.m., with the exception of drip irrigation or hand watering, as otherwise authorized pursuant to this Section, unless a variance is granted by the General Manager. Exceptions are accepted for District approved weather based irrigation controllers.
- k. Using potable water from the District's water system for compaction, dust control or other construction purposes without first obtaining approval from the General Manager as provided in Section 7.07 and a meter from the District.

- l. Installing a single-pass cooling system, such as water cooled air compressor, in any property that is newly connected to the District water system. This does not apply to evaporative cooling systems.
- m. Installing a non-recirculating system in any new automatic car wash or new commercial laundry system or failure to utilize current best management practices for water conservation that are industry standards.

**11.02 Determination of Wasteful Uses of Water**

It shall be unlawful for any person to waste water as defined above in Section 11.01. Violations will be based on observation(s) and documentation of waste by District staff, including but not limited to evidence of a continually running water meter readings and/or physical inspection, and/or visual observation of the occurrence. Violations are subject to the enforcement and penalty provisions in Section 13.00. *(Amended by Ordinance 2011-04)*

**11.03 Repair of Leaky Indoor or Outdoor Fixtures**

It shall be unlawful for any person to maintain or allow on the person's premises leaky or faulty water fixtures or devices to which District water is supplied, so that District water is wasted thereby. Failure to repair or disconnect such leaky or faulty devices within seven (7) days after being notified in writing to do so by the District, shall be sufficient cause for the District to disconnect its water service for such premises, pursuant to the requirements of Section 13.00, until the repairs have been made. At the discretion of the District, the customer may be informed in writing that the leak must be repaired more quickly, in which case the customer shall repair the leak in the time specified by the General Manager. *(Amended by Ordinance 2011-04)*

**SECTION 12.00 Drought Response**

**Determination of Drought**

In determining the District's water system's Drought Stage, the General Manager shall determine whether that system's water supplies available for potable use are sufficient to meet the current customer demands on that system and shall consider, unless otherwise excluded by this section, all relevant factors. The General Manager shall consider, among other things *(Amended by Ordinance 2011-04)*:

- a. any variations in the reliability of the Lake Water or other supplemental supplies available to the District's water system, which may be indicated by Department of Water Resources monitoring data in the Cosumnes River watershed (such as snow survey, rainfall precipitation, previous year runoff pattern data);

- b. gauge monitoring that indicates below normal Cosumnes River flow conditions that may affect the District's ability to pump water to the Lakes System;
- c. availability of non-potable water to meet non-potable demands on the District's water system; and
- d. the success, or lack thereof, of previous declarations of a less stringent Drought Stage in causing the water-use reductions sought by the District.
- e. the General Manager will select the necessary stage for response to the drought based on the provisions outlined in the District Board adopted Water Shortage Contingency Plan.
- f. The Board of Directors shall make the final drought declaration upon review of the General Manager's drought determination.

## **SECTION 13.00 Enforcement, Disconnection and Restoration of Service**

### **13.01 Enforcement**

The General Manager shall enforce the provisions of this Chapter and, for such purposes, shall have the powers of a peace officer, if deputized or if authorized by law. Such power shall not be regarded as limitations on or otherwise affecting the powers and duties of the County Health Officer. *(Amended by Ordinance 2011-04)*

### **13.02 Violation of Chapter**

In the event of a violation of any laws, ordinances, rules or regulations of the State of California, the County of Sacramento, or the District, respecting the subject matter contained herein, the District shall notify in writing the person or persons causing, allowing, or committing such violation and the General Manager shall have the authority to issue penalties and/or disconnect the property served from the District distribution system, in the manner set forth herein. *(Amended by Ordinance 2011-04)*

### **13.03 Penalties**

The goal of the provisions of this chapter are to achieve voluntary compliance from the customer, and the District will take reasonable measures to assure the customer has information available to promptly and efficiently address water use issues. Where voluntary compliance cannot be achieved through initial contacts and warnings, then appropriate administrative penalties and further action are required. Except as otherwise provided herein, violations of any provision of this chapter shall be addressed as follows *(Amended by Ordinance 2011-04)*:

<b>Violation</b>	<b>Penalty</b>
First	Personal or written notification of the violation
Second	Written notification and issuance of a notice to correct
Third	Issuance of an administrative penalty of \$100
Fourth	Issuance of a penalty of \$200
Fifth	Issuance of a penalty of \$500
Final	Disconnected water service and/or other penalties as provided in the notice of violation and as determined by the General Manager.

**13.04 Penalties in Times of Water Shortage**

In addition to any other penalties provided by this chapter, if a customer of the District water system violates any of the water use restrictions during a stage two, three, or four water shortage stage as set forth in Water Shortage Contingency Plan, and such conditions are not corrected within five (5) days after the customer is given written notice, the District is authorized to bill the customer, as a penalty, at twice the metered rate during the time that the violation continues and the penalties specified in Section 13.03 above may be increased by up to 100%. *(Amended by Ordinance 2011-04)*

**13.05 Appeal**

There shall be no appeal of the water use restrictions identified in this Chapter or the Water Shortage Contingency Plan. Any appeal of other matters or decisions of District staff shall be appealable in writing to the General Manager within ten (10) days and if still unresolved a second appeal may be sent in writing to the District Board of Directors within ten (10) days of the General Manager's decision. *(Amended by Ordinance 2011-04)*

**13.06 Variances**

In unusual circumstances, application of this chapter may cause unnecessary hardships or results inconsistent with this chapter's purposes and intent. Therefore, variances to some of the requirements of this chapter may be appropriate as described below *(Amended by Ordinance 2011-04)*:

- a. Authority to Grant Variances.  
The General Manager may grant variances to water use restrictions provisions during a stage one, two, or three Drought Stage as specified in the Water Shortage Contingency Plan. During stage four drought, as specified

in the Water Shortage Contingency Plan, any previously granted variances shall be suspended without notice, unless they are based on a critical health need as determined by a licensed medical professional, with such determination being provided to the General Manager.

- b. Other Variances.  
Customers who seek a variance from this chapter for any reason shall submit to the District a written request for variance, setting forth, in detail, the extraordinary circumstances that support the application. The General Manager may approve the application in his or her discretion; provided, that the variance allows the applicant to use only the minimum amount of water in addition to that allowed by this chapter that the General Manager reasonably believes is necessary to satisfy the circumstances that support the application. Any such variance shall terminate one (1) year after its issuance, subject to an application for its renewal.

### **13.07 Disconnection**

As an alternative method of enforcing the provisions of this or any other Chapter, rule or regulation of the District, the General Manager shall have the authority to disconnect the customer from the District's distribution system, without liability to the District, in the following manner:

- a. At least ten (10) days before the proposed disconnection of any service, a customer shall be provided with written notice of the procedure for the availability of an opportunity to discuss the reasons for the proposed disconnection of service.
- b. After notice has been given as specified in subparagraph (a) and prior to disconnection of service, a customer shall have the opportunity to discuss the reason for the disconnection with an employee designated by the District who shall be empowered to review disputed bills, rectify errors and settle controversies pertaining to disconnection of service.
- c. No service shall be disconnected by reason of delinquency in payment of bills on any Saturday, Sunday, legal holiday, or any time during which the District's office is not open to the public.

### **13.08 Settling Disputes**

The General Manager is hereby authorized to review disputes pertaining to any matters for which service may be disconnected and to adjust errors and settle disputes.

**13.09 Public Nuisance and Abatement**

During the period of disconnection, the habitation of such disconnected premises by human beings shall constitute a public nuisance, which shall authorize the District to bring proceedings for the abatement of the occupancy of the premises during the period of the disconnection. In such event, and as a condition of restoring service, the District shall be paid reasonable attorney's fees and costs arising from such action, plus any other necessary charges for or incurred in the restoration of service.

**13.10 Restoration of Service**

When service under this Chapter has been disconnected for any reason, the service shall not be restored until all unpaid sums are paid in full, plus all District expenses for disconnecting and restoring the service, plus a seventy-five dollar (\$75.00) restoration fee. *(Amended by Ordinance 85-1)*

**13.11 Recovery of Costs**

In the event that the District is required to bring legal action to enforce any provision of this Chapter, including but not limited to the collection of delinquent fees and charges, the District shall be entitled to recover its reasonable attorney's fees, interest and other costs of suit.

**13.12 Means of Enforcement Only**

The District hereby declares that the foregoing procedures are established as a means of enforcement of the terms and conditions of its ordinances, rules, and regulations and not as a penalty.

**13.13 Cumulative Remedies**

All remedies set forth herein for the collection and enforcement of rates, charges, and penalties are cumulative and may be pursued alternatively, concurrently or consecutively.

**13.14 Misdemeanor**

A violation of any provision of this Chapter is a misdemeanor, punishable by a fine not to exceed five hundred dollars (\$500.00) or by imprisonment in the County Jail not to exceed six (6) months, or both. Each and every day, or part of day that a violation of the Chapter continues, shall be deemed a separate offense hereunder and shall be punishable as such.

**13.15 Fire and Other Emergencies**

Nothing in this chapter limits, or may be construed as limiting the availability of water for extinguishing fires, meeting the demands of any other similar emergency, or routine inspection and maintenance of fire hydrants. *(Amended by Ordinance 2011-04)*



## 2014 Drought Updates

California has now experienced two back-to-back dry winters. This year was the driest on record in more than a century of record keeping.

Rancho Murieta Community Services District urges customers to do their part to reduce water use and preserve our local water resources. Our water use impacts the environment around us, including the beautiful lakes, rivers, creeks and streams that make our region unique. Now is the time to use less water in our homes and landscapes.

### STAGE 2 WATER WARNING

#### Low Water Levels in Our Reservoirs

*We need your help!*

Please reduce your water usage by 20%

Rancho Murieta is now under a STAGE 2 WATER WARNING that requires mandatory water use restrictions for homes and businesses. There is a probability that the District's reservoir supply will not be able to meet all the water demands of its customers.

Landscape irrigation shall be limited to a maximum of two (2) days per week when necessary and no watering schedule (e.g., additional minutes) increases are permissible on designated watering days. Two (2) days per week water is sufficient for landscapes in Rancho Murieta. Customers are to use cycle and soak watering with up to three short watering cycles. Watering shall be based on the following schedule:

1. Customers in Watering Group A (Murieta North) may irrigate only on Tuesdays and Saturdays.
2. Customers in Watering Group B (Murieta South, Murieta Village, and commercial) may irrigate only on Wednesdays and Sundays.
3. Watering times will be during the hours of 8:00 p.m. to 8:00 a.m. only.

NOTE: During winter, landscapes need very little water due to colder temperatures and shorter days. Turn off your sprinklers to save money and conserve water.

[Find out more here.](#)



Current reservoir levels are at 61%.

For more detailed information check out our [reservoir information page](#).

#### Rancho Murieta Drought FAQs

Everything you need to know about our drought policies. [Read the FAQs here.](#)

#### Percentage of Water Conserved to Date

0% conserved as we just started the [Stage 2 Water Alert](#).

#### Water Conservation Tips and Information


Learn about irrigation, water-wise landscaping and our free water conservation kits. [Get the info here.](#)








## Rebates to Help You Conserve Water

Get rebates on water heaters, sprinklers, drip systems, washers and more!  
[Get your rebates here.](#)

**Stage 2 Water**   
**Warning!** Reduce your water usage by 20%. For more info click [here](#).

[Report a water leak or water waste, click here.](#) 

[Tips on how to save water and money, click here.](#) 

 If you have a water leak in your water system that requires your water to be shut off, [CLICK HERE](#) for information on how to shut off your water.

- [Home](#)
- [About RMCSD](#)
- [RMCSD Services](#)
- [News and Updates](#)
- [Contact Us](#)

- 15160 Jackson Road, Rancho Murieta
- (916) 354 3700
- [info@rancho-murieta-csd.com](mailto:info@rancho-murieta-csd.com)

- [Twitter](#)
- [Facebook](#)
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- [Website design and development by KMCreative](#)

## RMCS D REBATES

### **Water Heater Recirculating Pump Rebate**

You can receive up to \$100 when you purchase and install a Comfort System UP 15-10 S17P TLC Hot Water Circulation System or equivalent. [CLICK HERE](#) for the rebate application.

### **Clothes Washer Rebate**

You can receive up to a \$125 rebate when you purchase a **high-efficiency clothes washer**. The overall efficiency rating of the clothes washer will determine the amount of the rebate. [CLICK HERE](#) for clothes washer fact sheet. [CLICK HERE](#) for the SMUD rebate application.

### **Toilet Rebate**

You can receive up to a \$100 rebate when you purchase and install a new toilet. [CLICK HERE](#) for toilet rebate application.

### **Water Pressure Reducing Valve Rebate**

You can receive up to a \$100 rebate when you purchase and install a water pressure reducing valve. [CLICK HERE](#) for the water pressure reducing valve rebate application. The rebate is on **Watts Water Pressure Reducing Valves - Series N45BOM1** or another brand's equivalent water pressure reducing valve.

### **Weather Based Sprinkler Controller Rebate**

You can receive up to a \$100 rebate when you purchase and install a weather based sprinkler controller. [CLICK HERE](#) for the weather based sprinkler controller rebate application.

### **Drip System Rebate**

You can receive up to a \$50 rebate when you purchase and install a drip system. [CLICK HERE](#) for the drip system rebate application.

### **Rotator Head Sprinkler Rebate**

You can receive up to a \$50 rebate when you purchase and install a rotator head sprinkler system. [CLICK HERE](#) for the rotator head sprinkler rebate application.



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

**Rancho Murieta Community  
Services District  
Water Conservation Notice**

Location: \_\_\_\_\_

- Violation 1<sup>st</sup>  2<sup>nd</sup>  3<sup>rd</sup>  4<sup>th</sup>  5<sup>th</sup>   
 Final  (See back for penalty)
- Gutter flooding /overwatering  
 Broken Sprinkler line, spray head or drip line  
 Irrigating when raining; please adjust timer  
 Broken Sprinkler head or drip line  
 Water running on paved surfaces  
 Watering on wrong day (during drought stage)  
 To eliminate water waste, flooding and/or property damage while you were gone, the following valve(s) were closed:  Water shut-off at house  
 Irrigation at house  
 District valve at meter box  
 Other related problems. \_\_\_\_\_

**Drought Stage Information**

- "Normal" Water Supply and On-going Conservation  
 Customers are being encouraged to use water for beneficial and reasonable uses.
- Stage One – Water Alert 10% reductions  
 Watering is limited to a maximum of three (3) days per week:  
 Group A (North) - Monday, Wednesday, Friday  
 Group B (South) - Tuesday, Thursday, Saturday.  
**Groups A and B: NO WATERING ON SUNDAY.**
- Stage Two – Water Warning 25% reductions  
 Watering limited to a maximum of two (2) days per week:  
 Group A - Tuesday and Saturday  
 Group B - Wednesday and Sunday  
**Watering times will be during 8:00 p.m. to 8:00 a.m. only.**
- Stage Three – Water Crisis 25-50% reductions  
 Landscape irrigation shall be limited to a maximum of one (1) day per week:  
 Group A - Saturday  
 Group B - Sunday
- Stage Four – Water Emergency 50% reductions  
 The District is projecting an imminent failure of a water supply, storage, or distribution facility based on an estimate of supply remaining. No irrigation, other than from a bucket from indoor sources (e.g., bath or clothes, washer rinse water)

**WATER CONSERVATION TIPS**

- Don't let the water run needlessly when washing dishes, shaving, or brushing your teeth.
- Take shorter showers... keeping showers less than 5 minutes can save up to 1,000 gallons per month.
- Plug the bathtub before turning the water on, and then adjust the temperature as the tub fills up.
- Fix leaky faucets: Just one drip a second can waste 2,000 gallons of water per year.
- If practical, try to run the dishwasher or washing machine only when completely full.
- If you live in an older home, consider replacing your plumbing with low-flow fixtures and low-flush toilets. (Rebates may be available-see www.rmcsd.com)
- Water your lawn only when necessary for short durations, and consider landscaping with native plants.
- Place a bucket in the shower to catch excess water to later water plants. This also works when washing dishes or vegetables in the sink.
- Use the garbage disposal minimally and compost instead
- Avoid water washing of streets, parking lots, driveways, sidewalks, or buildings
- All customers are encouraged to report observed water waste. Customers are to use cycle and soak watering with up to three short watering cycles.

**Penalties**

The goal of the District is to achieve voluntary compliance from the customer, and the District will take reasonable measures to assure the customer has information available to promptly and efficiently address water use issues. Where voluntary compliance cannot be achieved through initial contacts and warnings, then appropriate administrative penalties and further action are required.

Violation	Penalty
First	Personal or written notification of the violation
Second	Written notification and issuance of a notice to correct
Third	Issuance of an administrative penalty of \$100
Fourth	Issuance of a penalty of \$200
Fifth	Issuance of a penalty of \$500
Final	Disconnected water service and/or other penalties as provided in the notice of violation and as determined by the General Manager.

**MEMORANDUM**

Date: February 12, 2014  
 To: Board of Directors  
 From: Darlene J. Gillum, Director of Administration  
 Subject: Approve District's Prop 218 Notification Regarding Tiered Pricing

**RECOMMENDED ACTION**

Approve the proposed tiered rate and drought surcharge pricing for implementation through the Prop 218 for implementation effective with the May 25, 2014 billing cycle.

**BACKGROUND**

The District implemented a Stage 2 – Water Warning effective February 1, 2014. In the Water Shortage Contingency Plan, a Stage 2 drought declaration calls for up to 25% conservation and the implementation of tiered pricing and drought surcharges.

The conservation pricing model, developed by HDR for the District in 2007, was updated to reflect current 2013 consumption by account type (Residential, Commercial and Irrigation) and 2013-2014 budgeted revenue targets in order to calculate the proposed tiered rates and drought surcharges. The model develops proposed rates for all drought stages.

The following table summarizes the proposed rates and tiers for each drought stage:

	<b>Rate Per Cubic Foot</b>				
	<b><u>Normal</u></b>	<b><u>Stage 1</u></b>	<b><u>Stage 2</u></b>	<b><u>Stage 3</u></b>	<b><u>Stage 4</u></b>
<b>Rate - Residential</b>					
Block 1 – 0 to 800	\$.0147	\$.0147	\$.0192	\$.0310	\$.0664
Block 2 – 801 to 2,500	\$.0201	\$.0201	\$.0261	\$.0422	\$.0905
Block 3 – Over 2,500	\$.0235	\$.0235	\$.0305	\$.0493	\$.1056
Impact to Average Bill	\$5.53	\$5.53	\$10.84	\$18.02	\$25.58
<b>% Surcharge</b>	0.0%	0.0%	30.0%	110.0%	350.0%
<b>Total Conservation Savings</b>	1.2%	2.9%	20.3%	49.6%	75.8%
	<b><u>Normal</u></b>	<b><u>Stage 1</u></b>	<b><u>Stage 2</u></b>	<b><u>Stage 3</u></b>	<b><u>Stage 4</u></b>
<b>Rate - Commercial</b>					
Winter (Oct thru March)	\$.0150	\$.0150	\$.0195	\$.0315	\$.0684
Summer (April thru Sept)	\$.0196	\$.0196	\$.0254	\$.0411	\$.0881
Impact to Average Bill	\$42.51	\$42.51	\$117.98	\$185.11	\$484.59
<b>% Surcharge</b>	0.0%	0.0%	30.0%	110.0%	350.0%
<b>Total Conservation Savings</b>	4.0%	10.0%	20.0%	50.0%	63.3%

	<u>Normal</u>	<u>Stage 1</u>	<u>Stage 2</u>	<u>Stage 3</u>	<u>Stage 4</u>
<b>Rate – Commercial Irrigation</b>					
All Consumption	\$ .0235	\$ .0235	\$ .0305	\$ .0493	\$ .1056
Impact to Average Bill	\$90.90	\$90.90	\$137.73	\$170.37	\$271.16
<b>Total Conservation Savings</b>		10.0%%	20.0%	50.0%	75.0%

#### FISCAL IMPACTS OF STAGE 2 DROUGHT

The fiscal impacts of a Stage 2 drought over a full year (based on 2013-2014 projected usage) without implementing tiered pricing is estimated to be \$394,000.

Revenue loss from 20% reduction in usage	\$190,000
Increased power cost running 3 500 hp pumps	\$ 74,000
Power demand surcharge	\$ 60,000
Conservation related expenditures	\$ 70,000
<b>TOTAL FISCAL IMPACT</b>	<b>\$394,000</b>

Without implementing tiered pricing it will be difficult to absorb the projected revenue loss and the increased costs related to drought impacts.