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# Conejo Creek Project

*Effects of Two Project Scenarios*



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### Introduction

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The Conejo Creek project, which diverts water from Calleguas Creek for local use, has been operated by Camrosa Water District since 2002. A total of almost 65,000 acre-feet per year (AFY) has been delivered via pipeline for agricultural irrigation to customers of Pleasant Valley County Water District (PVCWD). Fox Canyon Groundwater Management Agency (FCGMA) storage credits were earned by PVCWD by replacing pumped groundwater with Conejo Creek water. These credits were initially transferred to Calleguas Municipal Water District. More recently, Calleguas MWD has withdrawn from the Conejo Creek project, with future credits earned by PVCWD staying with project participants.

Camrosa has the right to all Conejo Creek project water. With Calleguas no longer part of the project, a new agreement for water delivery is being negotiated between Camrosa Water District and PVCWD. One of the components of the agreement is how storage credits earned by the project will be used in the future. If the agreement is signed as currently constructed, storage credits that are earned by PVCWD for replacing groundwater pumping with Conejo Creek deliveries are proposed to be transferred to Camrosa. In turn, these credits would be used by Camrosa for groundwater pumping from two wells in the Pleasant Valley basin.

Alternatively, if there is no water delivery agreement successfully negotiated between Camrosa and PVCWD, future water diverted from the Conejo Creek project will be utilized by Camrosa within the Santa Rosa Basin. In this case, PVCWD would no longer receive project water and would have to increase future pumping to replace the Conejo Creek supply.

To provide information on the potential impact of each scenario (credits transferred to Camrosa for pumping or Camrosa's direct use of the diverted water), several aspects of the Conejo Creek project were analyzed for impact. These included:

- Analysis of the historical value of the Conejo Creek project, including benefits of replacing groundwater pumping in the Pleasant Valley basin by Conejo Creek deliveries;
- The potential effects on groundwater conditions from a new water delivery agreement compared to a no-agreement scenario where water is used directly for Camrosa's customers;
- The value of diverted Conejo Creek water during drought periods when other sources of supply are reduced.

These analyses are then summarized and discussed in terms of effects on the groundwater resources of the Pleasant Valley basin.

## Historical Value of Conejo Creek Project

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As a management strategy to protect the Upper Aquifer of the Oxnard Plain basin from further seawater intrusion, pumping in the Oxnard Plain and Pleasant Valley basins was shifted from the Upper Aquifer to the Lower Aquifer over the past several decades<sup>1</sup>. However, the increased pumping in the Lower Aquifer lowered groundwater elevations in the aquifer and caused seawater to also intrude the Lower Aquifer.

The shift in pumping to the Lower Aquifer is illustrated in Figure 1, where the proportion of total basin pumping changed from 40% to 60% in the Lower Aquifer from 1985 to 2006. This change in pumping patterns caused Lower Aquifer groundwater elevations to drop at the coastline. However, this shift in pumping patterns was partially mitigated in the Pleasant Valley basin by surface deliveries from two sources that replaced groundwater pumping:

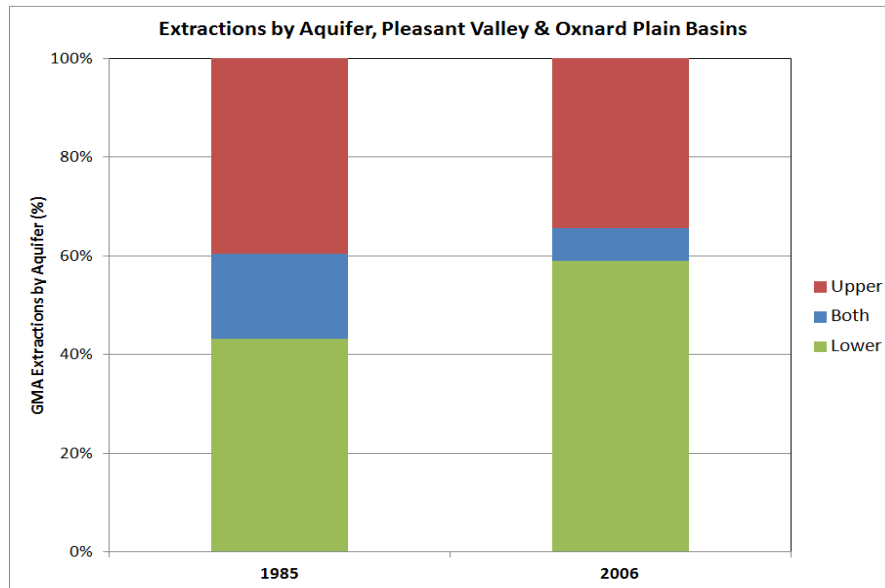
- The Pleasant Valley Pipeline, operated by United Water Conservation District and serving PVCWD, increased deliveries of Santa Clara River water following the construction of the Freeman Diversion in 1991;
- The Conejo Creek project, operated by Camrosa Water District, began supplying diverted Conejo Creek water to PVCWD in 2002.

The effects of these two delivery systems are illustrated in Figure 2, which displays both semi-annual pumping amounts and a 4-year moving average of annual pumping. Although there was a significant reduction in pumping following the end of the 1987-1991 drought, a portion of that reduction was caused by the increased deliveries to PVCWD in the Pleasant Valley Pipeline. Another significant drop in pumping occurred in the early to mid 2000s when the Conejo Creek water was first delivered to PVCWD.

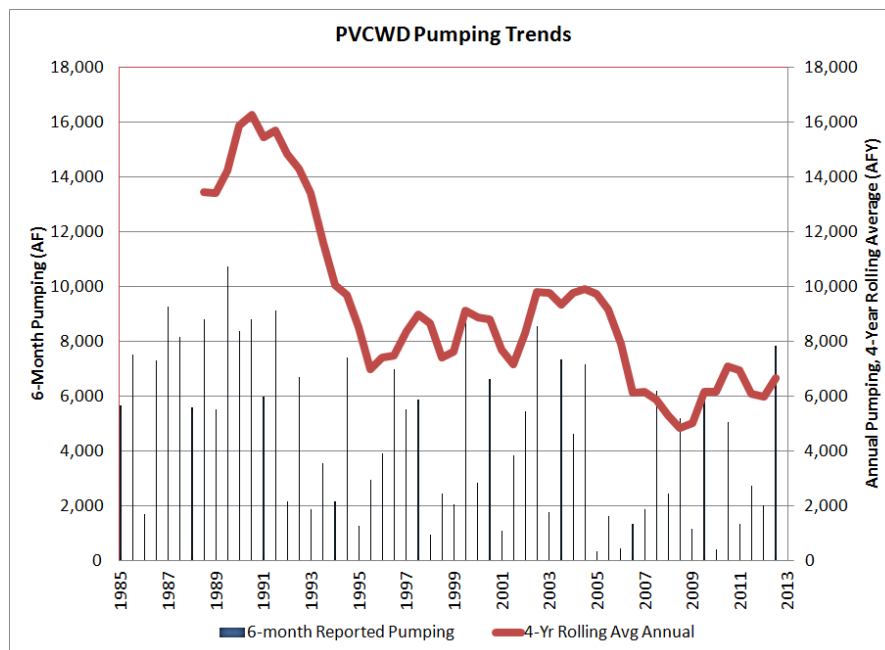
The decreased pumping in the Pleasant Valley basin also had a favorable effect on groundwater elevations. Several hydrographs constructed near the location of PVCWD's wells illustrate this. The locations of the wells used for the hydrographs, along with the locations of PVCWD's wells, are shown in Figure 3.

The 2J2 well (Figure 4) is screened in the Upper Aquifer and shows the increased groundwater elevations related to the shift in pumping away from the Upper Aquifer. Three wells screened in the Lower Aquifer are shown in Figure 5 to Figure 7. These wells indicate that groundwater elevations are as high or higher today than they were prior to the shift in pumping to the Lower Aquifer. The proximity of these wells to the PVCWD's wells suggests that these groundwater elevations have remained higher because of the reduced pumping of PVCWD wells.

Thus, the effects of deliveries of Conejo Creek water to PVCWD has been to substantially reduce pumping by PVCWD and to allow groundwater elevations to rise in the Lower Aquifer despite a regional shift of pumping to the Lower Aquifer during that time.

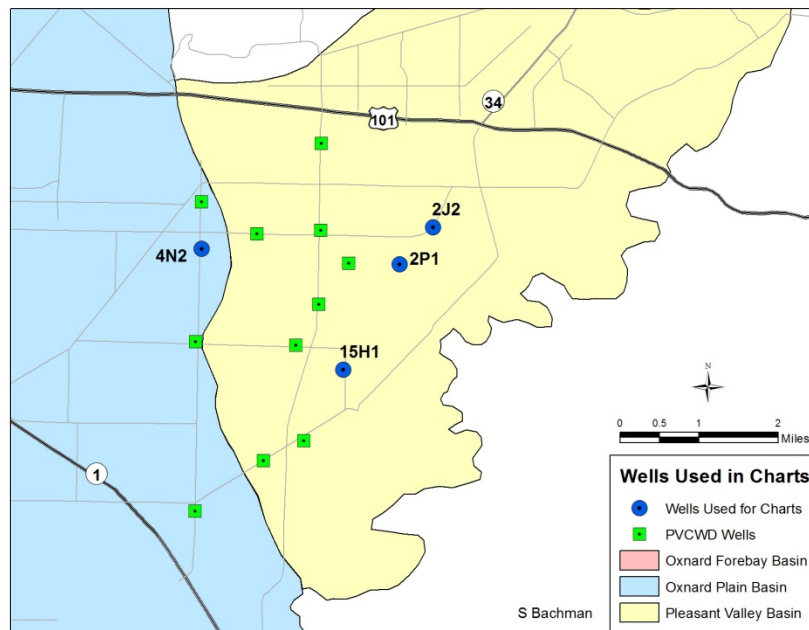


**Figure 1. Proportion of pumping in the Lower Aquifer has shifted from near 40% to near 60% over the 20-year period 1985 to 2006.**

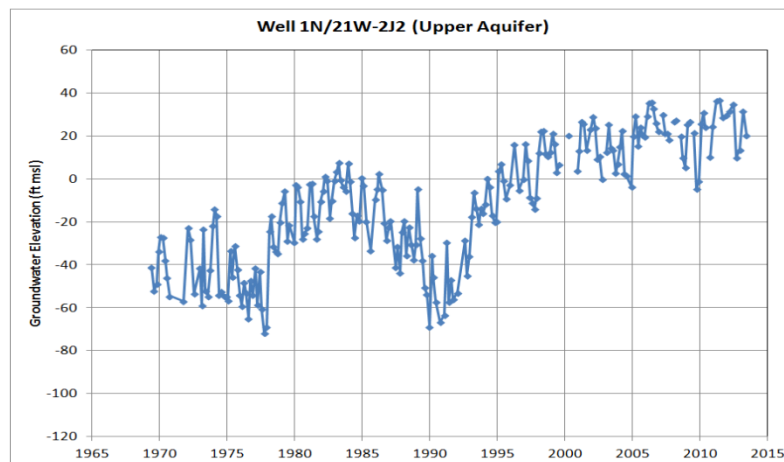


**Figure 2. PVCWD pumping trends over the past 3 decades. Column graph indicates FCGMA reported semi-annual pumping for PVCWD. Line graph indicates 4-year moving average annual pumping for PVCWD. There are two large changes in pumping – one following the end of a drought period and construction of the Freeman Diversion in the early 1990s, and another following the construction of the Conejo Creek diversion in the early 2000s.**

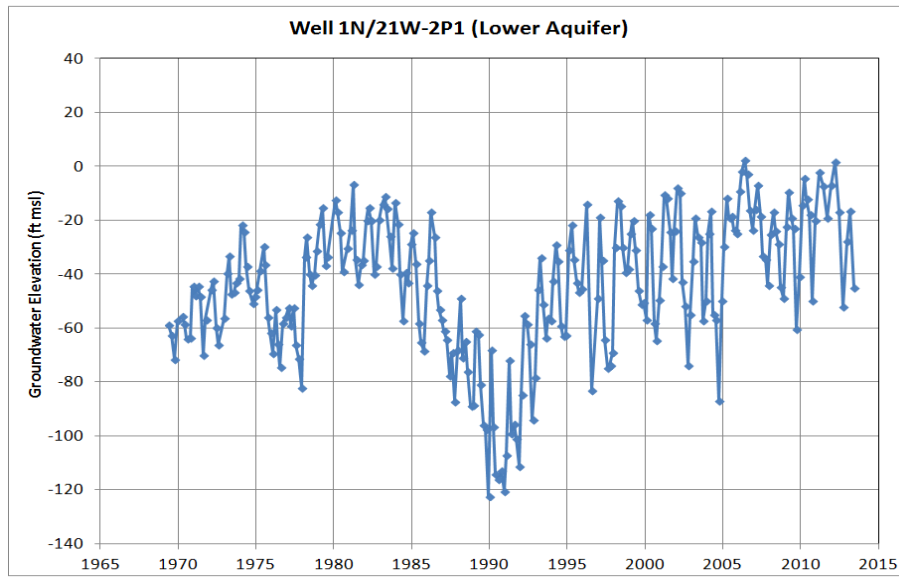




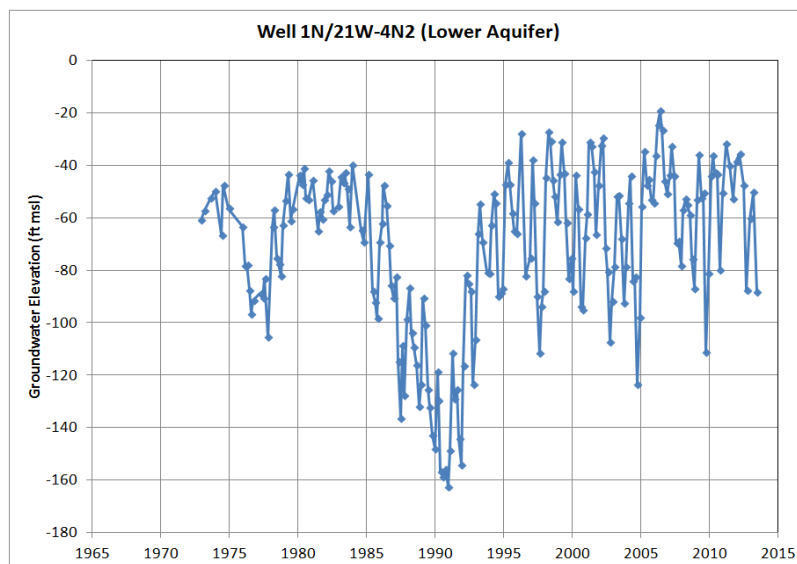
**Figure 3. Location map of PVCWD's wells and wells for which hydrographs are shown in report.**



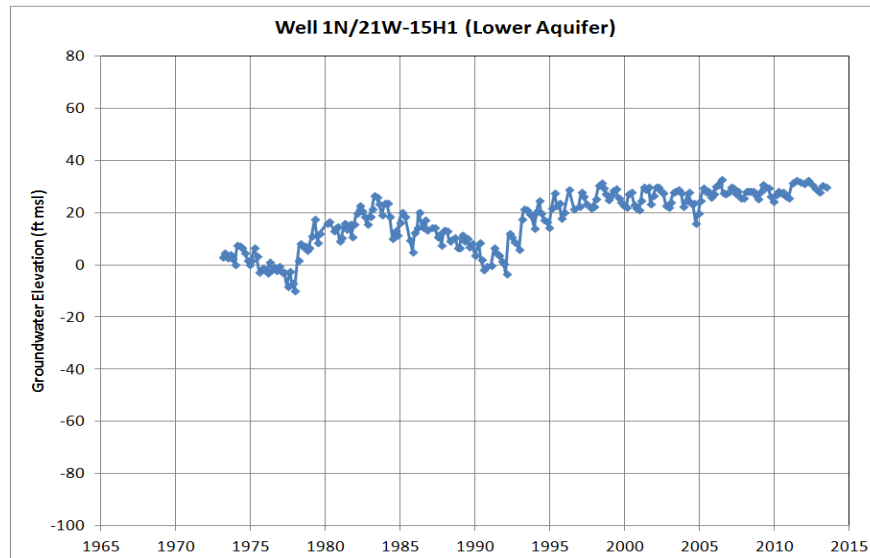
**Figure 4. Hydrograph for Upper Aquifer well 2J2. Location on preceding map.**



**Figure 5. Hydrograph for Lower Aquifer well 2P1. Location on preceding map.**



**Figure 6. Hydrograph for Lower Aquifer well 4N2. Location on preceding map.**



**Figure 7. Hydrograph for Lower Aquifer well 15H1. Location on preceding map.**

## Comparison of Conejo Creek Project Effects

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As discussed in the Introduction, there are two options being considered for future use of Conejo Creek water:

- Under an agreement between Camrosa and PVCWD, Conejo Creek water would continue to be delivered to PVCWD. Credits earned by PVCWD by pumping less than their historical allocation would be transferred to Camrosa, which would pump all or a portion of these credits from the eastern portion of the Pleasant Valley basin. Camrosa will replace their current well 2N/20W-29B2 to increase production, and drill an additional well approximately  $\frac{3}{4}$  of a mile east of 29B2. The wells would pump both Camrosa's current FCGMA allocation and the additional credits. It is unlikely that all the credits generated through this program could be pumped by these two wells, so it is not likely that all the credits would be used. However, to be conservative, this analysis assumes that all the credits are pumped annually at these two wells.
- If an agreement is not reached between Camrosa and PVCWD, Conejo Creek water would instead be delivered to Camrosa's customers in the Santa Rosa basin and adjacent area. PVCWD's pumping would then increase to make up for the reduced pipeline deliveries. It is assumed that the increased pumping is spread equally among PVCWD's wells. There would be no change in Camrosa's pumping in the Pleasant Valley basin.

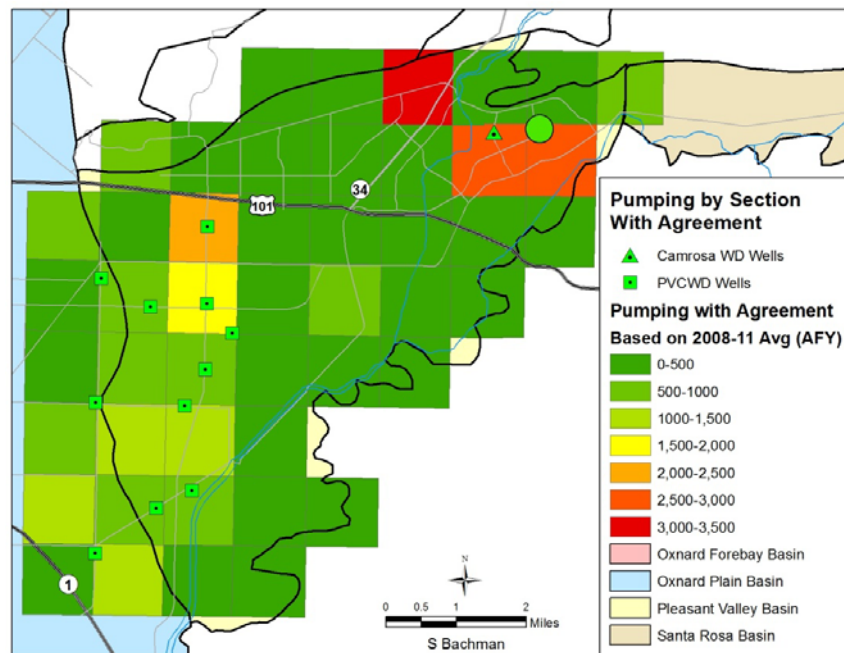
Regional pumping patterns were examined to determine the effect of either of the two scenarios above. There is currently a significant pumping depression in the Lower Aquifer near the Camarillo Airport<sup>2</sup>. Pumping associated with this depression has pulled poor-quality water from deeper portions of the basin, including traces of oil-field brine. In addition, this depression is inland from areas of seawater intrusion

and could exacerbate and extend the intrusion. Thus, reduction in pumping in the area beneath and adjacent to PVCWD (which overlies much of the area of the pumping depression) is critical in mitigating the pumping depression.

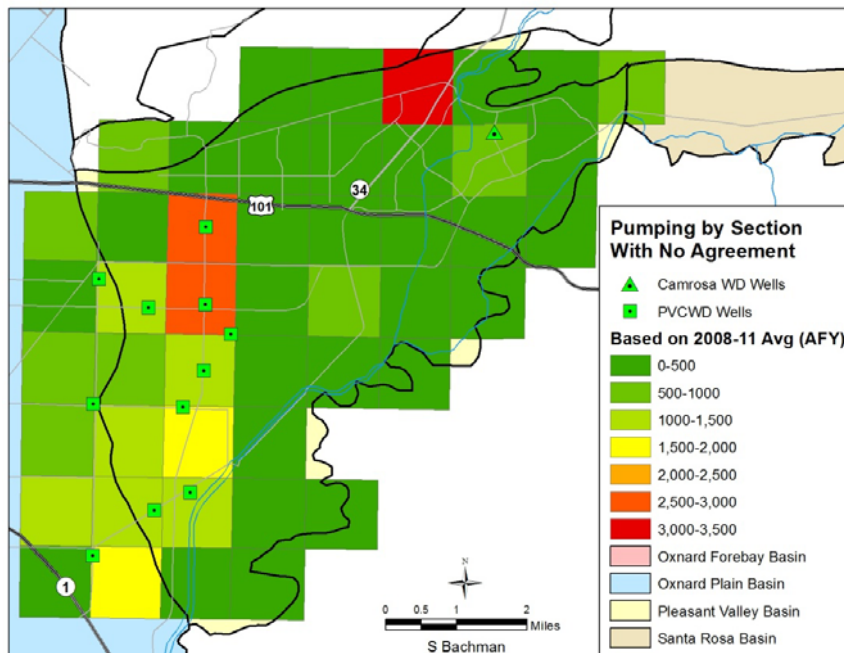
Pumping patterns were analyzed by grouping wells that report pumping to the FCGMA by mile-square land section, and summing the extractions in each section. In this manner, sections could be displayed with a color ramp to better visualize regional pumping patterns (e.g., Figure 8). The annual average of reported pumping during the period 2008-11 was used in the analysis.

For the scenario where a water delivery agreement is reached between Camrosa and PVCWD, pumping patterns are the same as during the 2008-11 period except for the additional pumping by Camrosa shown on Figure 8 (Conejo Creek deliveries averaged 5,133 AFY during this period). The increased pumping occurs away from both the ocean and the pumping depression, and nearer the source of storm recharge from Arroyo Las Posas in the northern portion of the Pleasant Valley basin.

Under the scenario where there is no water supply agreement, Conejo Creek project water is delivered to the Santa Rosa basin and PVCWD pumping increases to replace Conejo Creek deliveries. This increased pumping (Figure 9) significantly increases the pumping stress within PVCWD, particularly near the pumping depression near the Camarillo airport (two bright red sections near northern end of PVCWD wells). A comparison between Figure 8 and Figure 9 visually indicates the pumping impact of the no-agreement scenario in the critical areas of the Pleasant Valley basin.



**Figure 8. Pumping by section with a water supply agreement in place between Camrosa and PVCWD. Pumping patterns are the same as for the annual average of 2008-11, except for two sections in the portion of the basin where Camrosa currently has a production well – these sections are shown by the triangle representing Camrosa's current well and a green circle representing the approximate location of an addition well that will be drilled in the future. It is assumed that all credits generated by the project will be pumped by Camrosa, but that is unlikely because of well capacity limitations.**

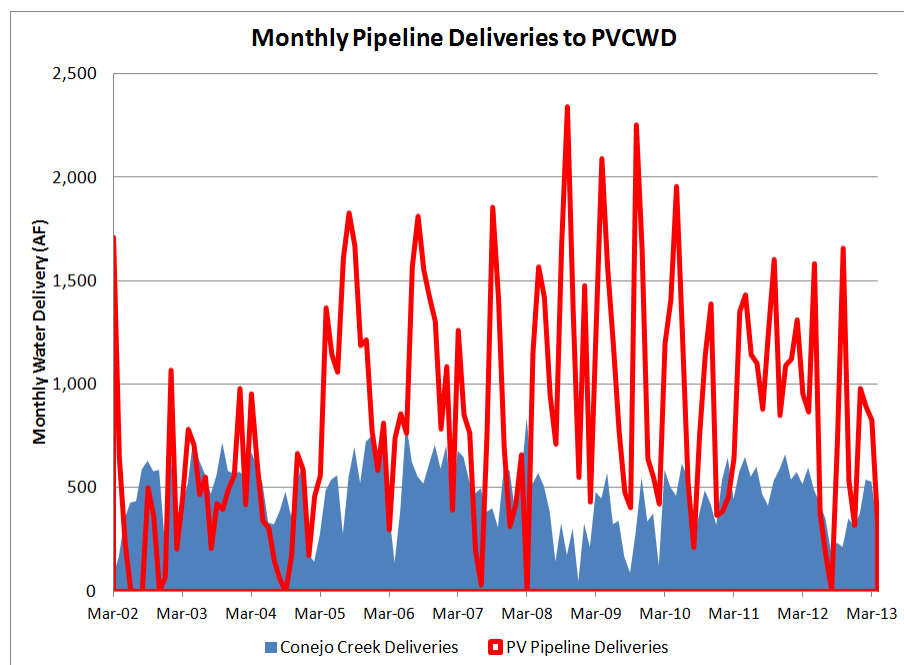


**Figure 9. Pumping by section in the scenario where there is no Conejo Creek water supply agreement between Camrosa and PVCWD. Pumping is assumed the same as the annual average for the period 2008-11, except that there is increased pumping by PVCWD to replace Conejo Creek deliveries. The increased pumping occurs at or adjacent to the pumping depression present in the Pleasant Valley basin.**

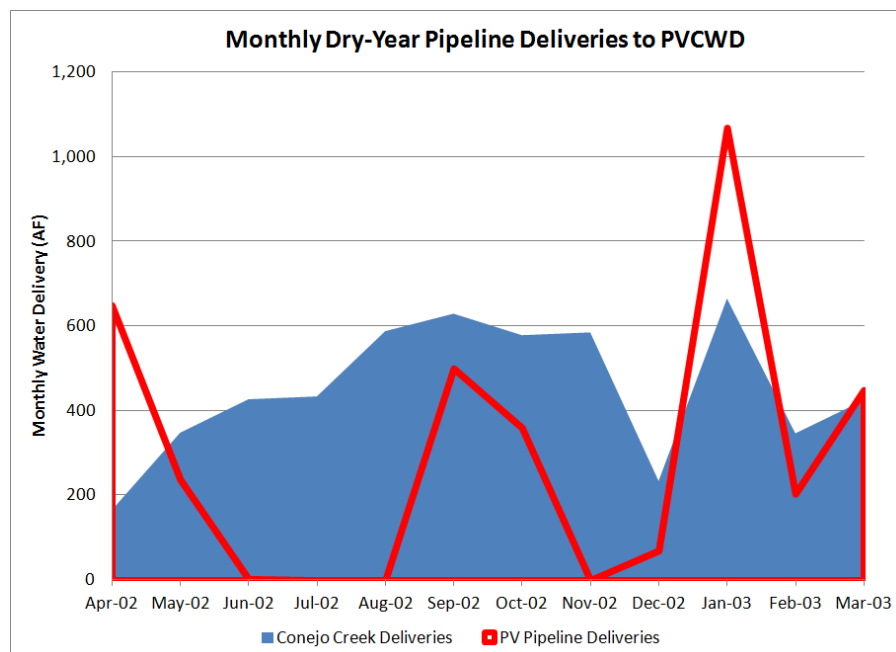
## Importance of Conejo Creek Project as Drought Buffer

The significant advantage that the Conejo Creek project has is that it is partially drought-proof. Because a portion of the flow of Conejo Creek is recycled water, flow is steadier during drought periods (see blue area of Figure 10). In contrast, deliveries of Santa Clara River are highly variable and can disappear during drought periods as the river dries. This is shown in a blow-up of a portion of Figure 10 during the period 2002-03 (Figure 11). PV Pipeline flow was eliminated during the dry portions of the year, whereas Conejo Creek project deliveries remained. A conservation release from Lake Piru during the Fall of 2002 increased the PV deliveries temporarily. That did not happen in 2013, where Lake Piru was too depleted for a release, and may not occur in 2014 unless there is significant runoff this winter.

The advantage of Conejo Creek deliveries during a dry period is that they allow PVCWD to continue to pump their wells less. This is especially important during a drought where other pumpers increase their pumping.



**Figure 10. Monthly pipeline deliveries to PVCWD through the PV Pipeline (United Water Conservation District) and the Conejo Creek project. The Conejo Creek project commenced delivery of water in 2002.**



**Figure 11. Blow-up of dry-year example from previous figure. Summer PV Pipeline deliveries were eliminated when the Santa Clara River dried. Increased PV flows in the Fall were the result of a conservation release from Lake Piru; such a release did not occur in Fall 2013, which extended the no-delivery time of the PV Pipeline.**

## Conclusions

Deliveries of Conejo Creek water to PVCWD have significantly reduced groundwater pumping by PVCWD. In turn, groundwater elevations have risen in proximity to PVCWD's wells. This area of the Pleasant Valley basin is critical because it is the location of a groundwater pumping depression that has caused poorer-quality water to be pulled into the aquifer. The depression is also inland from areas of seawater intrusion and may exacerbate that problem.

An added benefit of the Conejo Creek project is that it is relatively drought-proof because of its component of recycled water. Conejo Creek water continues to be delivered during dry periods, resulting in less pumping by PVCWD during the time when regional groundwater elevations are lowest and there is the highest probability of pulling in poor-quality water.

The effect of having a water-supply delivery agreement between Camrosa and PVCWD is essentially a movement of the location of pumping. With the agreement, pumping is moved away from the pumping depression and the coast to a more-inland area. This more-inland area is also where recharge of storm water occurs from Arroyo Las Posas. Without the agreement, Conejo Creek water is delivered elsewhere and PVCWD pumping would increase to replace that water source. It is likely that groundwater elevations in the pumping depression would drop as this overlying pumping increased. Thus, it appears that the project with a water supply agreement will be a net advantage to the basin.

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<sup>1</sup> FCGMA, 2007, *Groundwater Management Plan*, 147 p.

<sup>2</sup> *Ibid.*



**CALLEGUAS**

**MUNICIPAL WATER  
DISTRICT**



# ANNUAL WATER QUALITY REPORT JULY 2012

*Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.*

# Water Quality as Our Priority

**W**ater quality continues to be a priority for Calleguas Municipal Water District. Our mission since the 1950s has been to provide our service area with a reliable supply of high quality, imported drinking water. A team of highly trained professionals works hard to ensure that Calleguas' water supply meets all state and federal water quality standards. This brochure provides information about the sources and quality of the water delivered by Calleguas in 2011. Included are details about where your water comes from, what it contains, and how it compares to State and Federal standards.

During the year, multiple tests for over 150 drinking water contaminants were performed on Calleguas' water supply to determine concentrations of mineral, physical, bacteriological, inorganic, organic, and radioactive constituents. Once again, we are proud to report our system did not violate any water quality standards. For additional information on the quality of water delivered by Calleguas, please contact Amy Maday at (805) 579-7117 or visit our website at [www.calleguas.com](http://www.calleguas.com).

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

## Our Mission

*... is to provide our service area with a reliable and adequate supply of quality supplemental water through the acquisition and distribution of both regional and locally-developed water in an environmentally and economically responsible manner.*

## Our Source Water

**O**riginating in northern California, Calleguas' drinking water supply is conveyed over five hundred miles through the State Water Project's network of reservoirs, aqueducts, and pump stations. Metropolitan Water District of Southern California completed a source water assessment of its State Water Project supply. This source is considered to be most vulnerable to urban and storm water runoff, wildlife, agriculture, recreation, and wastewater. A copy of the assessment can be obtained by contacting Metropolitan by phone at (213) 217-6850. The State Water Project supply is filtered and disinfected at Metropolitan's Joseph Jensen Filtration Plant in Granada Hills. Following treatment, water is conveyed by pipeline through the San Fernando Valley to Calleguas' mile-long tunnel in the Santa Susana Mountains. The water is then distributed by Calleguas and its purveyors to over one-half million Ventura County residents, representing 80% of the County's population. Surplus supplies of imported water are stored in Lake Bard, the District's surface water reservoir near the city of Thousand Oaks, and the Las Posas groundwater basin underlying the city of Moorpark and surrounding area.



Through the Las Posas Aquifer Storage and Recovery (ASR) project, Calleguas stores water for later use during summer peak demand periods, droughts and emergencies. With an estimated storage capacity of 300,000 acre feet, the lower aquifer system of the Las Posas Basin is optimal for groundwater storage as it is largely confined by clay layers which provide protection from potential contamination sources overlying the aquifer. To date, 18 ASR wells are operational. Additional wells are under consideration to further increase the program's injection and extraction capacity. Visit [www.calleguas.com](http://www.calleguas.com) for more information on the Las Posas ASR project and other Calleguas water supply reliability programs.



## General Information About Source Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before we treat it include:

Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

- *Pesticides* and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.

- *Radioactive* contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.



## Our Treated Water

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Department of Public Health (Department) prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Calleguas achieves these standards through vigilant watershed protection and treatment techniques used at Metropolitan's Jensen Plant as well as Calleguas' Lake Bard Water Filtration Plant. A good indicator of the effectiveness of our filtration system is the measurement of turbidity. Turbidity, or the cloudiness of water, is listed in the tables included in this report.



## Water Quality Data

The tables below list all the drinking water contaminants that we detected during the 2011 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in these tables is from testing done January 1 through December 31, 2011. The State requires that we monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of water quality, is more than one year old.



# Summary of Water Quality Results For 2011

| <div>MUNICIPAL WATER DISTRICT</div> |               |                          | Imported Surface Water<br>Treated by Metropolitan |       | Locally Stored Surface Water<br>Treated by Calleguas |       | Las Posas Aquifer Storage and Recovery Program |       | Major Sources in Drinking Water |
|-------------------------------------|---------------|--------------------------|---|-------|--|-------|--|-------|---------------------------------|
| Percent of Supply                   |               |                          | 95%   |       | 4%   |       | 1%   |       |                                 |
| Parameter                           | MCL<br>[MRDL] | PHG<br>(MCLG)<br>[MRDLG] | Average   | Range | Average  | Range | Average  | Range |                                 |

## PRIMARY DRINKING WATER STANDARDS - Mandatory Health-Related Standards

### CLARITY (a)

|                      |                      |      |      |     |             |
|----------------------|----------------------|------|------|-----|-------------|
| Turbidity (NTU) (TT) | Highest Single Value | 0.05 | 0.08 | (a) | Soil runoff |
|                      | % of samples <0.3    | 100% | 100% | (a) |             |

### DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS

|                                 |     |     |  |          |    |          |     |     |   |
|---------------------------------|-----|-----|--|----------|----|----------|-----|-----|---|
| Bromate (ppb) (b)               | 10  | 0.1 | 5.9  | ND - 8.8 | ND | ND - 7.1 | (b) | (b) | By-product of drinking water disinfection       |
| Haloacetic Acids (ppb) (c)      | 60  | n/a | System Wide Range: 4 - 9, Highest RAA: 6       |          |    |          |     |     | By-product of drinking water disinfection       |
| Total Chlorine Residual (ppm)   | [4] | [4] | System Wide Range: 1.8 - 2.0, Highest RAA: 1.9 |          |    |          |     |     | Drinking water disinfectant added for treatment |
| Total Trihalomethanes (ppb) (c) | 80  | n/a | System Wide Range: 15 - 44, Highest RAA: 24    |          |    |          |     |     | By-product of drinking water chlorination       |

### INORGANIC CHEMICALS

|  |       |       |  |           |    |    |     |          |  |
|--|-------|-------|--|-----------|----|----|-----|----------|--|
| Aluminum (ppb)                           | 1,000 | 600   | 82   | 61 - 99   | ND | ND | 60  | 60       | Erosion of natural deposits, residual from water treatment process   |
| Arsenic (ppb)                            | 10    | 0.004 | 2.3  | 2.3       | ND | ND | 3.0 | 3.0      | Erosion of natural deposits, runoff from orchards                    |
| Fluoride - Distribution System (ppm) (d) | 2.0   | 1     | System Wide Range: 0.7 - 0.9, Highest RAA: 0.8 |           |    |    |     |          | Water additive that promotes strong teeth                            |
| Nitrate (as NO <sub>3</sub> ) (ppm)      | 45    | 45    | 1.8  | 1.8 - 2.2 | ND | ND | ND  | ND - 2.2 | Runoff and leaching from fertilizer use, erosion of natural deposits |
| Selenium (ppb)                           | 50    | 30    | ND   | ND        | ND | ND | 5   | 5        | Runoff and leaching from fertilizer use, erosion of natural deposits |

### RADIOLOGICALS (e)

|                                       |    |      |    |        |    |       |    |         |                                       |
|---------------------------------------|----|------|----|--------|----|-------|----|---------|---------------------------------------|
| Gross Alpha Particle Activity (pCi/L) | 15 | (0)  | ND | ND     | ND | ND    | 5  | ND - 7  | Erosion of natural deposits           |
| Gross Beta Particle Activity (pCi/L)  | 50 | (0)  | ND | ND - 4 | ND | ND    | ND | ND      | Decay of natural and manmade deposits |
| Uranium (pCi/L)                       | 20 | 0.43 | 1  | ND - 2 | 2  | 1 - 2 | 8  | ND - 16 | Erosion of natural deposits           |

## ABBREVIATIONS, DEFINITIONS, and NOTES

n/a = not applicable

NTU = Nephelometric Turbidity Units

ppb = parts per billion, or micrograms per liter (µg/L)

ND = None Detected

ppm = parts per million, or milligrams per liter (mg/L)

pCi/L = PicoCuries per Liter

**Maximum Contaminant Level (MCL)** = The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.

**Maximum Contaminant Level Goal (MCLG)** = The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

**Maximum Residual Disinfectant Level (MRDL)** = The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial pathogens.

**Maximum Residual Disinfectant Level Goal (MRDLG)** = The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Public Health Goal (PHG)** = The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

**Primary Drinking Water Standard** = MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**Treatment Technique (TT)** = A required process intended to reduce the level of a contaminant in drinking water.

**Running Annual Average (RAA)** = The average of all the samples taken for the year.

**(a)** The turbidity level of filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU. ASR water is not subject to these requirements.

**(b)** Compliance for treatment plants that use ozone is based on a running annual average of monthly samples. ASR water is not subject to these requirements.

**(c)** Compliance is based on a running annual average of quarterly distribution system samples. Values reported reflect the highest and lowest single value in the distribution system (range) and the highest running annual average.

**(d)** The Metropolitan Water District treats their water by adding fluoride to the naturally occurring level in order to help prevent dental caries in consumers. Fluoride level in the treated water is maintained within a range of 0.7 - 1.3 ppm, as required by CDPH regulations.

**(e)** Metropolitan results were taken from 2011 monitoring. Calleguas Las Posas ASR results were taken from 2009, 2010 and 2011 monitoring.



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|--------------------------|---------------|--------------------|---|-------|--|-------|--|-------|---------------------------------|
| Percent of Supply        |               |                    | 95%   |       | 4%   |       | 1%   |       |                                 |
| Parameter                | Secondary MCL | Notification Level | Average   | Range | Average  | Range | Average  | Range |                                 |

## SECONDARY DRINKING WATER STANDARDS – Aesthetic Standards

|                              |       |  |      |             |      |           |     |           |  |
|------------------------------|-------|--|------|-------------|------|-----------|-----|-----------|--|
| Aluminum (ppb) (a)           | 200   |  | 82   | 61 - 99     | ND   | ND        | 60  | 60        | Erosion of natural deposits, residual from water treatment process |
| Chloride (ppm)               | 500   |  | 64   | 59 - 69     | 89   | 87 - 90   | 68  | 59 - 75   | Runoff and leaching from natural deposits, seawater influence      |
| Color (Units)                | 15    |  | 1    | 1           | 6    | ND - 15   | 8   | ND - 14   | Naturally-occurring organic materials                              |
| Manganese (ppb)              | 50    |  | ND   | ND          | ND   | ND        | ND  | ND - 70   | Leaching from natural deposits                                     |
| Odor Threshold (Units)       | 3     |  | 2    | 2           | ND   | ND        | ND  | ND        | Naturally-occurring organic materials                              |
| Specific Conductance (µS/cm) | 1,600 |  | 500  | 420 - 530   | 638  | 633 - 644 | 602 | 515 - 754 | Substances that form ions when in water, seawater influence        |
| Sulfate (ppm)                | 500   |  | 56   | 54 - 58     | 70   | 70        | 90  | 56 - 147  | Runoff and leaching from natural deposits                          |
| Total Dissolved Solids (ppm) | 1,000 |  | 280  | 280 - 290   | 360  | 350 - 380 | 352 | 280 - 460 | Runoff and leaching from natural deposits                          |
| Turbidity (NTU) (b)          | 5     |  | 0.03 | 0.03 - 0.09 | 0.04 | 0.04      | 0.3 | ND - 0.6  | Soil runoff  |

## ADDITIONAL PARAMETERS (Unregulated)

|                                 |    |       |   |           |      |           |      |             |  |
|---------------------------------|----|-------|---|-----------|------|-----------|------|-------------|--|
| Alkalinity (ppm)                | NS | NS    | 85                                      | 76 - 93   | 93   | 90 - 100  | 92   | 80 - 110    |  |
| Boron (ppb)                     | NS | 1,000 | 190                                     | 190       | 200  | 200       | 200  | 200         |  |
| Calcium (ppm)                   | NS | NS    | 27                                      | 26 - 28   | 29   | 29        | 40   | 27 - 62     |  |
| Chlorate (ppb)                  | NS | 800   | 26                                      | 26        | ND   | ND        | ND   | ND          |  |
| Corrosivity (AI) (c)            | NS | NS    | 12.0                                    | 12.0      | 12.1 | 12.1      | 11.9 | 11.5 - 12.1 |  |
| Hardness (Total Hardness) (ppm) | NS | NS    | 110                                     | 110 - 120 | 130  | 130       | 159  | 117 - 229   |  |
| Magnesium (ppm)                 | NS | NS    | 12                                      | 12        | 14   | 14        | 14   | 12 - 18     |  |
| N-Nitrosodimethylamine (ppt)    | NS | 10    | System-Wide Average = 5, Range = ND - 9 |           |      |           |      |             |  |
| pH (pH Units)                   | NS | NS    | 8.2                                     | 8.1 - 8.4 | 8.1  | 7.9 - 8.3 | 8.0  | 7.4 - 8.4   |  |
| Potassium (ppm)                 | NS | NS    | 3                                       | 3         | 3    | 3         | 3    | 3 - 4       |  |
| Radon (pCi/L) (d)               | NS | NS    | ND                                      | ND        | ND   | ND        | 761  | 244 - 1087  |  |
| Sodium (ppm)                    | NS | NS    | 54                                      | 52 - 57   | 71   | 71        | 57   | 53 - 64     |  |
| Total Organic Carbon (ppm)      | NS | NS    | 1.9                                     | 1.6 - 2.1 | 2.4  | 1.9 - 2.6 | 0.6  | 0.6         |  |
| Vanadium (ppb)                  | NS | 50    | 3                                       | 3         | ND   | ND        | 3    | 3           |  |

## ABBREVIATIONS, DEFINITIONS, and NOTES

ND = None Detected      NS = No Standard

NTU = Nephelometric Turbidity Units

ppm = parts per million, or milligrams per liter (mg/L)

ppb = parts per billion, or micrograms per liter (µg/L)

ppt = parts per trillion, or nanograms per liter (ng/L)

pCi/L = PicoCuries per Liter

µS/cm = microSiemen per Centimeter

**Maximum Contaminant Level (MCL)** = Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**Notification Level** = The level at which notification of the public water system's governing body is required.

(a) Aluminum has both primary and secondary standards.

(b) The monthly averages and ranges of turbidity shown in the Secondary Standards section are based on source effluents.

(c) AI measures the aggressiveness of water transported through pipes. Water with AI <10.0 is highly aggressive and would be very corrosive to almost all materials found in a typical water system. AI ≥12.0 indicates non-aggressive water. AI between 10.0 and 11.9 indicates moderately aggressive water.

(d) Radon results were taken from 2009, 2010 and 2011 monitoring.



## Information for Customers with Special Water Needs

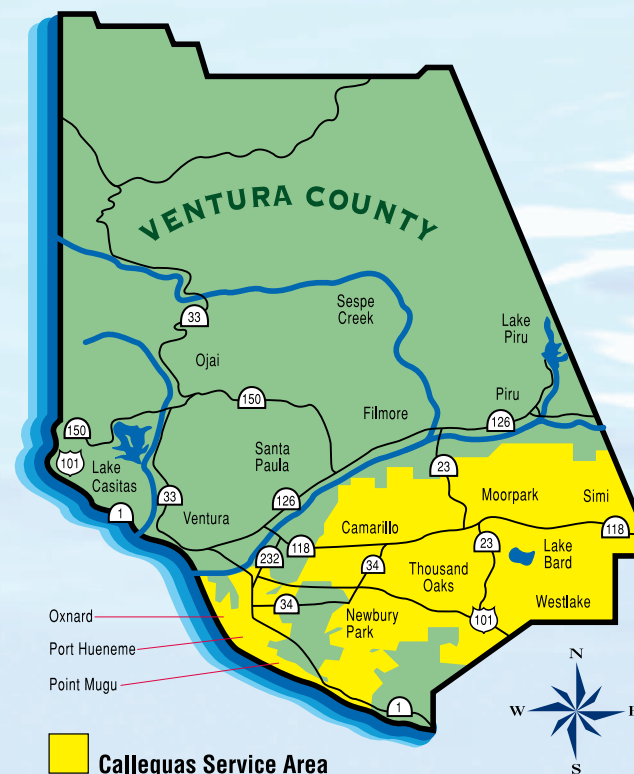
Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).



## Constituents Tested For and Not Detected

In addition to the information provided in the Summary of Water Quality Results, Calleguas also monitored for, but did not detect, the following contaminants during 2011:

|            |                |              |                                   |
|------------|----------------|--------------|-----------------------------------|
| Antimony   | Cyanide        | Perchlorate  | Total Chromium                    |
| Asbestos   | Foaming Agents | Pesticides   | Tritium                           |
| Barium     | Herbicides     | Radium 226   | Volatile Organic Chemicals (VOCs) |
| Beryllium  | Lead           | Radium 228   | Zinc                              |
| Cadmium    | Mercury        | Silver       |                                   |
| Chromium 6 | MTBE           | Strontium-90 |                                   |
| Copper     | Nitrite        | Thallium     |                                   |



## Information on Lead in Household Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your local utility is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

# Drinking Water Fluoridation

In 2007, Calleguas' wholesale water provider, the Metropolitan Water District of Southern California, joined a majority of the nation's public water suppliers in systematically adding fluoride to drinking water at each of five water treatment plants in order to help prevent tooth decay.

In line with recommendations from the California Department of Public Health, as well as the U.S. Centers for Disease Control and Prevention, Metropolitan adjusted the natural fluoride level in the water, which ranges from 0.1 to 0.4 parts per million, to the optimal range for dental health of 0.7 to 0.8 parts per million.



Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million.

Fluoride has been added to U.S. drinking water supplies since 1945. Of the 50 largest cities in the U.S., 43 fluoridate their drinking water.

For more information about the benefits of drinking water fluoridation, please visit the following web sites:

**The American Dental Association**

<http://www.ada.org/fluoride.aspx>

**U.S. Centers for Disease Control and Prevention**

[http://www.cdc.gov/fluoridation/fact\\_sheets/cwf\\_qa.htm](http://www.cdc.gov/fluoridation/fact_sheets/cwf_qa.htm)

## Information on Radon

Water suppliers are required to provide information on the presence of radon in water sources. A known human carcinogen, radon is a radioactive gas that one cannot see, taste, or smell. Commonly found in soils throughout the United States, breathing air containing radon may lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. Radon can seep up through the ground and into homes and other structures through cracks and holes in foundations. Over time, concentrations of the gas can increase to high levels potentially exposing

inhabitants to greater health risks. It is possible that radon can also be released from tap water when used for showering, washing dishes, and other household activities. However, the concentration of radon released through tap water is in most cases assumed to be considerably lower than concentrations entering a home from underlying ground. If you are concerned about radon, you are advised to test the air in your home. Testing is inexpensive and easy. The EPA recommends taking measures to reduce radon levels in your home if concentrations are 4 PicoCuries per liter of air (pCi/L) or higher. For additional information, call your State radon program (1-800-745-7236), the EPA Safe Drinking Water Act Hotline at (1-800-426-4791), or call the National Safe Council Radon Hotline (1-800-SOS-RADON).

## More Information on Water Quality

**Calleguas Municipal Water District**

2100 Olsen Road • Thousand Oaks, CA 91360-6800

(805) 526-9323

<http://www.calleguas.com>

**Metropolitan Water District of Southern California**

Public Affairs • P.O. Box 54153 • Los Angeles, CA 90054-0153

(800) CALL MWD

[www.mwdh2o.com/](http://www.mwdh2o.com/)

**State of California Department of Public Health**

Office of Drinking Water • 601 North 7th Street • Sacramento, CA 94234-7320

<http://www.cdph.ca.gov/programs/Pages/DDWEM.aspx>

**U.S. Environmental Protection Agency (WH-550)**

**Office of Ground Water & Drinking Water**

401 M. Street, S.W. • Washington, D.C. 20460

Safe Drinking Water Hotline (800) 426-4791

<http://water.epa.gov/drink/index.cfm>

The Calleguas Municipal Water District Board of Directors meets on the first and third Wednesday of each month at 5:00 pm at the District's administration building, 2100 Olsen Road in Thousand Oaks. The public is welcome to attend these meetings.



Ted Grandsen - President  
William R. Seaver - Vice President  
Donald G. Hauser - Secretary  
Gail L. Pringle - Treasurer  
Scott H. Quady - Director  
Susan B. Mulligan - General Manager





**AGREEMENT BETWEEN  
CAMROSA WATER DISTRICT AND  
PLEASANT VALLEY COUNTY WATER DISTRICT  
FOR THE SALE OF WATER PURSUANT TO STATE WATER RESOURCES CONTROL  
BOARD WATER RIGHT DECISION 1638**

THIS AGREEMENT BETWEEN CAMROSA WATER DISTRICT AND PLEASANT VALLEY COUNTY WATER DISTRICT FOR THE SALE OF WATER PURSUANT TO STATE WATER RESOURCES CONTROL BOARD WATER RIGHT DECISION 1638 ("Agreement") is entered into this 10<sup>th</sup> day of April, 2014 between CAMAROSA WATER DISTRICT ("Camrosa") and PLEASANT VALLEY COUNTY WATER DISTRICT ("Pleasant Valley"), both California county water districts formed pursuant to California Water Code Section 30000, et seq. Camrosa and Pleasant Valley are at times collectively referred to as "Parties" or individually as "Party."

**RECITALS**

A. Camrosa's primary mission is to provide reliable and adequate supplies of quality, supplemental water through the acquisition and distribution of both regional and locally-developed water supplies in an environmentally-responsible manner.

B. Pleasant Valley's primary mission is to provide supplemental water to agricultural users within the boundaries of its district, and to maintain and preserve the limited groundwater resources within its district. The Oxnard Plain groundwater aquifers, which are the source of Pleasant Valley's groundwater supplies, are subject to overdraft, and Pleasant Valley is seeking alternative water supplies.

C. The City of Thousand Oaks ("Thousand Oaks") owns and operates the wastewater treatment facilities known as the Hill Canyon Wastewater Treatment Plant, from which treated wastewater ("Recycled Water") is discharged to Conejo Creek. Thousand Oaks petitioned the State Water Resources Control Board ("SWRCB") for certain water rights over the Recycled Water and certain return flows from imported water used within Thousand Oaks' corporate boundaries ("Recaptured Water").

D. In anticipation of the SWRCB's decision, and based upon Thousand Oaks' original Water Right application, Calleguas Municipal Water District ("Calleguas"), Camrosa, Thousand Oaks, and Pleasant Valley entered into various agreements to cooperate in the appropriation and beneficial use of the Project Water, including the construction and operation of facilities ("Conejo Creek Project") to convey Recycled Water and Recaptured Water (collectively, "Project Water") to Camrosa and Pleasant Valley.

E. Pleasant Valley and Calleguas entered into the Agreement for Sale of Water dated the "           day of            1994" (without the date specified) (the "1994 Agreement") setting forth the terms by which Pleasant Valley may purchase from Calleguas certain Project Water diverted for delivery to Pleasant Valley for utilization within Pleasant Valley's jurisdictional boundaries.

F. Pleasant Valley and Calleguas have entered into a separate agreement setting forth the terms and conditions under which the 1994 Agreement shall terminate.

G. Thousand Oaks and Camrosa have now entered into a new agreement re-establishing and consolidating the terms of their relationship with respect to the Conejo Creek Project pursuant to State Water Resources Control Board Water Rights Decision 1638 ("Decision 1638") and the corresponding Water Right Permit 20952 issued by the SWRCB to Thousand Oaks. In accordance with that Agreement, Project Water may be available for sale by Camrosa to Pleasant Valley.

H. On March 26, 2014, the Fox Canyon Groundwater Management Agency ("FCGMA") adopted Resolution 2014-01, approving the transfer of credits between Pleasant Valley and Camrosa as set forth in this Agreement.

I. Camrosa and Pleasant Valley now desire to enter into this Agreement to establish new terms and conditions for the sale and purchase of Project Water in accordance with State Water Resources Control Board Water Rights Decision 1638 and the corresponding Water Right Permit 20952.

### **AGREEMENT**

**NOW THEREFORE**, it is agreed as follows:

**1. Definitions.** For purposes of this Agreement,

(a) "Camrosa-Pleasant Valley Metering Station" means the water metering station installed by Camrosa located at Camrosa's Pond Pump site where the discharge of the Camrosa owned Pleasant Valley pumps are metered into Pleasant Valley's irrigation water distribution system. This facility is owned and operated by Camrosa and is where Conejo Creek Project water is stored, and if not used by Camrosa, is made available to Pleasant Valley.

(b) "Camrosa Diversion" means the Conejo Creek Diversion structure owned and operated by Camrosa and which is located downstream and adjacent to the U.S. Highway 101 bridge over the Conejo Creek and designated by Decision 1638 as the point of diversion for water appropriated pursuant to any water right or license pursuant to Decision 1638.

(c) "Conejo Creek Project" means the Conejo Creek Diversion Structure, the main pumping and distribution system for delivery of Conejo Creek water within Camrosa's service area, and the main transmission system for delivery of Conejo Creek water to Pleasant Valley.

(d) "Hill Canyon Wastewater Treatment Plant" means that treatment plant which is owned by Thousand Oaks, and which discharges Recycled Water into the Conejo Creek system.

(e) "Project Water" means the Recycled Water and Recaptured Water which is the subject of the Conejo Creek Project Agreement.

(f) "Conejo Creek Project Agreement" means the "Agreement Between the City of Thousand Oaks and the Camrosa Water District for the Beneficial Use of Water Pursuant to State Water Resources Control Board Water Right Decision 1638 dated May 28, 2013." A copy of the Conejo Creek Project Agreement is attached as Exhibit A and incorporated by this reference.

(g) "Resolution 2014-01" means the resolution adopted on March 26, 2014 by the FCGMA "Establishing the Conejo Creek Water Pumping Program Involving Camrosa Water District and

Pleasant Valley County Water District Using the Conejo Creek Diversion.” A copy of Resolution 2014-01 is attached as Exhibit B and incorporated by this reference.

(h) “Termination Agreement” means the agreement between Pleasant Valley and Calleguas setting forth the terms and conditions by which the 1994 Agreement shall be terminated. A copy of the Termination Agreement is attached as Exhibit C and incorporated by this reference.

(i) “Water Year” means the period of September 1 through August 31.

2. **Conditions Precedent.** This Agreement shall not become enforceable or implemented until the 1994 Agreement between Pleasant Valley and Calleguas has been terminated in accordance with the terms and conditions set forth in the Termination Agreement.

3. **Availability of Water Pursuant to this Agreement.**

(a) Pleasant Valley acknowledges that Camrosa cannot guarantee, for whatever reason, to Pleasant Valley the amount of Project Water, if any, available for purchase by Pleasant Valley under this Agreement.

(b) During the Term of this Agreement, Camrosa shall make available to Pleasant Valley for purchase any excess Project Water not used by Camrosa pursuant to the Conejo Creek Project Agreement. The purchase price for such water is set forth in Section 5, below. As set forth in this Agreement, a Water Year shall be utilized to determine the amount of Project Water available to Pleasant Valley, and for other billing purposes.

(c) The Parties understand that no Project Water shall be guaranteed to Pleasant Valley. However, Camrosa shall utilize its best efforts to maximize the amount of Project Water harvested and delivered to Pleasant Valley from the Conejo Creek Project.

4. **Use Restrictions; Indemnification.** Pleasant Valley acknowledges and agrees that, pursuant to Decision 1638, all water delivered to Pleasant Valley pursuant to this Agreement must be used only within the boundaries of Pleasant Valley Water District. Pleasant Valley further acknowledges and agrees that all water made available to Pleasant Valley pursuant to this Agreement, including the appropriation and use thereof, is subject to Decision 1638, Water Right Permit 20952, and all other applicable laws, rules, and regulations governing the use of such water. Pleasant Valley shall defend, indemnify, and hold harmless Camrosa, its officers, directors, employees, managers, and agents from any and all claims, lawsuits, demands, judgments, or other liability arising out of, directly or indirectly, Pleasant Valley’s distribution of Project Water delivered under this Agreement outside Pleasant Valley’s jurisdictional boundaries or in any other manner prohibited by Decision 1638, Water Right Permit 20952.

5. **Monthly Payment.** Pleasant Valley has no obligation to take any Project Water from Camrosa under this Agreement. Pleasant Valley shall pay Camrosa for any Project Water delivered by Camrosa to Pleasant Valley (“Delivered Water”) in accordance to with the following provisions:

(a) Subject to subparagraph 5(c), below, the base unit price per acre foot of Project Water is \$154.89 per acre foot.

(b) On September 1<sup>st</sup> of each year, the Parties agree to adjust the unit price per acre foot of Project Water as described in subsection 5(c), below.

(c) The adjusted base unit price per acre foot shall be determined by adjusting the previous year's price per acre foot by the annual percentage change from the preceding July to July period in the Consumer Price Index (Los Angeles-Riverside-Orange County, All Urban Consumers) as published by the U.S. Bureau of Labor Statistics. Notwithstanding the foregoing, in no event shall the adjusted price be more than 107% of the previous year's price and in no event shall the adjusted price be less than 93% of the previous year's price. The adjusted price so determined shall then be the price per acre foot until the next September adjustment.

(d) Camrosa shall invoice Pleasant Valley on a monthly basis for Delivered Water during the prior month. Pleasant Valley shall render payment to Camrosa within thirty days of receiving a monthly invoice for Delivered Water.

**6. Annual Payment.**

(a) In the event that Pleasant Valley's total monthly purchases of Project Water during a given Water Year are less than three thousand acre-feet, Pleasant Valley shall be obligated to make an annual payment equal to the difference between what Pleasant Valley would have paid for the delivery of three thousand acre feet of Project Water in the applicable Water Year and the cost of Delivered Water during that same Water Year ("Annual Payment"). The price and payment terms for the Annual Payment shall be as provided below.

(1) On or before November 1st of each calendar year, Camrosa shall invoice Pleasant Valley for an amount equal to the difference between Delivered Water in acre-feet and three thousand acre-feet multiplied by the base unit price per acre of Project Water, as that price may be adjusted in accordance with Section 5(c), above, ("Minimum Payment").

(2) Subject to Section 6(b) below, Pleasant Valley shall render each Minimum Payment to Camrosa within thirty calendar days of invoice receipt.

(b) Pleasant Valley shall not be obligated to make the Minimum Payment to Camrosa unless all of the following conditions have been satisfied:

(1) Camrosa has made three thousand acre-feet of Project Water available to Pleasant Valley during the applicable Water Year;

(2) The Camrosa Diversion was operating normally and capable of delivering Project Water to Pleasant Valley during the applicable Water Year;

(3) The Minimum Payment for which Pleasant Valley is invoiced reflects only that amount of Project Water that Camrosa made available for delivery to Pleasant Valley and that, as a result of Pleasant Valley's failure to take delivery, was released downstream of the Camrosa Diversion; and

(4) Camrosa has (i) provided written notice (by email or other method agreed upon in writing) to Pleasant Valley within twenty-four hours of Pleasant Valley's failure at any time to

accept delivery of Project Water made available to Pleasant Valley through the Camrosa Diversion and (ii) not later than the last day of any month in which Pleasant Valley fails to accept delivery of Project Water through the Camrosa Diversion, Camrosa provides written notice (by email or other method agreed upon in writing) to Pleasant Valley specifying the amount of Project Water released downstream of the Camrosa Diversion as a result of Pleasant Valley's failure to accept delivery of Project Water from Camrosa.

7. **Reimbursement of Energy Costs.** Pleasant Valley shall reimburse Camrosa for energy costs associated with delivery of the Project Water to Pleasant Valley in accordance with the following provisions:

(a) **Metering Station Energy Costs.** The energy costs to divert Project Water at the Camrosa Diversion shall be based on the total energy costs incurred at that facility divided by the total water diverted, with Pleasant Valley reimbursing Camrosa for a pro-rata share of such costs based on the subsequent deliveries through all metering stations delivering Project Water to Pleasant Valley;

(b) **Camrosa-Pleasant Valley Metering Station.** Regarding energy costs at the Camrosa-Pleasant Valley Metering Station, both Parties recognize that there are multiple interrelated variables that affect energy consumption and that the energy cost allocation described below is a reasonable, but not exact allocation of energy consumption;

(1) A kWh/af energy factor for pumping one acre foot of Project Water from the Camrosa Storage Ponds to Pleasant Valley is calculated on a monthly basis; and

(2) Energy costs for delivery of Project Water from the Camrosa Storage Ponds to Pleasant Valley shall be based upon the following formula:

$$\begin{aligned} &(\text{af pumped to Pleasant Valley}) \times (\text{kWh/af energy factor} \\ &\text{Pleasant Valley pumps}) \times (\$/\text{kWh}) = \text{Pleasant Valley} \\ &\text{allocation of energy costs at the Camrosa-Pleasant} \\ &\text{Valley Metering Station} \end{aligned}$$

(c) **Audit Verification.** At the request of Pleasant Valley, Camrosa shall fully cooperate to make available any and all records necessary for Pleasant Valley to audit Camrosa's energy costs and meter records that are involved with the determination of Pleasant Valley's allocation of energy costs at the Camrosa-Pleasant Valley Metering Station. If the audit results in a determination by Pleasant Valley, which determination shall be made in Pleasant Valley's sole and absolute discretion, that the allocation method set forth in Section 7(b), above, results in an unfair or inequitable result, Pleasant Valley and Camrosa agree to meet and confer and, upon mutual agreement, adjust the allocation and/or method of allocation to eliminate the inequity.

8. **Transfer of Storage Credits.** The Parties recognize that certain credits may accrue to Pleasant Valley pursuant to the applicable rules and regulations adopted by the FCGMA. Pleasant Valley shall transfer to Camrosa, pursuant to applicable FCGMA rules and regulations, one acre-foot of storage credits as earned for each acre-foot of water delivered to Pleasant Valley from Camrosa through the Conejo Creek Project under this Agreement ("Credit Transfer"). On March 26, 2014, the Fox Canyon Groundwater Management Agency ("Agency") adopted Resolution 2014-01, approving the Credit

Transfer. Should the FCGMA alter its rules or regulations or in any other manner prohibit the Credit Transfer contemplated by this Agreement, the Parties shall either develop a prompt, mutually acceptable accommodation, or either Party may terminate this Agreement upon sixty calendar days written notice to the other.

9. **Cooperation.** The Parties agree to cooperate, exchange information, and provide the availability of records as necessary for each Party to comply with its reporting obligations relating to the Conejo Creek Project, administration of this Agreement, and operation of associated facilities. Reporting requirements include, without limitation, those reporting requirements set forth in Fox Canyon Groundwater Management Agency Resolution 2013-02.

10. **Term.** The “Term” of this Agreement is forty years, and shall commence on the Effective Date.

11. **Water Quality.**

(a) Pleasant Valley acknowledges that Camrosa cannot guarantee to Pleasant Valley the quality of the Project Water available for purchase by, and/or delivered to, Pleasant Valley pursuant to this Agreement. If, in accordance with the Conejo Creek Project Agreement, Camrosa is formally notified by Thousand Oaks of any condition that impairs the quality of the Project Water available under this Agreement, Camrosa shall notify Pleasant Valley by telephone. Pleasant Valley shall provide to Camrosa the emergency phone number and contact at Pleasant Valley for purposes of this notification and shall promptly notify Camrosa in writing of any changes to this information during the term.

(b) Pleasant Valley shall hold Camrosa harmless from any and all claims, lawsuits, demands, judgments, or other liability arising out of, directly or indirectly, the use of water delivered under this Agreement, including but not limited to impurities, pollution, or chemical which may be introduced into the water made available under this Agreement. Notwithstanding the foregoing, Camrosa, its elective and appointive boards, officers, agents and employees, shall not be relieved from liability to Pleasant Valley for Camrosa’s negligence or willful misconduct arising from or related to Camrosa’s performance of its obligations under Section 11(a) of this Agreement.

12. **Notices.** Any notice required to be given hereunder shall be deemed to have been given by depositing said notice in the United States mail, postage prepaid, and addressed as follows:

|                  |  |
|------------------|--|
| CAMROSA:         | General Manager<br>Camrosa Water District<br>7385 Santa Rosa Road<br>Camarillo, CA 93012             |
| PLEASANT VALLEY: | John Mathews<br>Arnold, LaRochelle et al.<br>300 Esplanade Way Suite 2100<br>Oxnard, CA 93023<br>and |

General Manager  
Pleasant Valley County Water District  
154 S Las Posas Rd  
Camarillo, CA 93010-8570

**13. Miscellaneous.**

(a) **Assignment.** The Parties agree that this Agreement may not be assigned without the prior written consent of the other Party.

(b) **Waiver: Remedies Cumulative.** Failure by a Party to insist upon the strict performance of any of the provisions of this Agreement by another Party, irrespective of the length of time for which such failure continues, shall not constitute a waiver of such Parties' rights to demand strict compliance by such other Party in the future. No waiver by a Party of a default or breach by another Party or Parties shall be effective or binding upon such Party unless made in writing by such Party, and no such waiver shall be implied from any omission by a Party to take any action with respect to such default or breach. No express written waiver of a specified default or breach shall affect any other default or breach, or cover any other period of time, other than any default or breach and/or period of time specified. All of the remedies permitted or available to a Party under this Agreement, or at law or in equity, shall be cumulative and alternative, and invocation of any such right or remedy shall not constitute a waiver or election of remedies with respect to any other permitted or available right or remedy.

(c) **Construction.** The provisions of this Agreement shall be construed as a whole according to its common meaning and purpose of providing a public benefit and not strictly for or against any Party. It shall be construed consistent with the provisions hereof, in order to achieve the objectives and purposes of the Parties. Wherever required by the context, the singular shall include the plural and vice versa, and the masculine gender shall include the feminine or neutral genders or vice versa.

(d) **Mitigation of Damages.** In all situations arising out of this Agreement, the Parties shall attempt to avoid and minimize the damages resulting from the conduct of the other Party.

(e) **Governing Law.** This Agreement, and the rights and obligations of the Parties, shall be governed and interpreted in accordance with the laws of the State of California.

(f) **Captions.** The captions or headings in the Agreement are for convenience only and in no other way define, limit or describe the scope or intent of any provision or section of the Agreement.

(g) **Authorization.** Each Party represents and warrants to the other that the execution, delivery, election to participate in, and performance of this Agreement (i) are within its powers, (ii) has been duly authorized by all necessary actions on its behalf and all necessary consents or approvals have been obtained and are in full force and effect; and (iii) binds said Party and its respective administrators, officers, directors, agents, employees, successors, assigns, principals, joint venturers, insurance carries, and any others who may claim through it under this Agreement.

(h) **Entire Agreement.** This Agreement supersedes any other agreements, either oral or in writing, between the Parties hereto with respect to the Conejo Creek Project and beneficial use of water available for appropriation pursuant to State Water Resources Control Board Water Right Decision 1638, and contains all of the covenants and agreements between the Parties with respect thereto. Any modifications of this Agreement will be effective only if it is in writing and signed by each Party to this Agreement.

(i) **Partial Invalidity.** If any provision in this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions will nevertheless continue in full force without being impaired or invalidated in any way.

(j) **Relationship of the Parties.** The relationship of the Parties to this Agreement shall be that of independent contractors and in no event shall any Party be considered an officer, agent, servant or employee of any other Party. Without limiting the foregoing, each Party agrees to be solely responsible for any workers compensation, withholding taxes, unemployment insurance and any other employer obligations associated with the described work or obligations assigned to them under this Agreement.

IN WITNESS WHEREOF, the Parties have entered into this Agreement.

**CAMROSA COUNTY WATER DISTRICT**

By: Tony Stafford  
Tony Stafford, General Manager

Date: 4-10-14

**PLEASANT VALLEY COUNTY WATER DISTRICT**

By: Thomas P. Vujovich Jr.  
Thomas P. Vujovich Jr., President, Board of Directors

Date: 4/4/14

By: David Souza  
David Souza, General Manager

Date: 4-4-14

APPROVED AS TO FORM:

By: John Mathews  
John Mathews, General Counsel



Exhibit A

(Copy of Conejo Creek Project Agreement)

(See Attached)

**Agreement Between the City of Thousand Oaks and the Camrosa Water District  
for the Beneficial Use of Water Pursuant to State Water Resources Control Board  
Water Right Decision 1638**

This Agreement is entered into this 28 the day of May, 2013 by and between the City of Thousand Oaks, a California general law city (hereinafter referred to as "**City**"); and the Camrosa Water District, a county water district organized under the County Water District Law of the State of California (hereinafter referred to as "**Camrosa**").

RECITALS

- A. The City and Camrosa have a common interest in maximizing the beneficial use of waters available for appropriation as described in the State Water Resources Control Board Water Right Decision 1638 and corresponding Water Right Permit 20952 issued by the State Water Resources Control Board to the City (hereinafter referred to as "**City Water Rights**").
- B. The City and Camrosa have cooperated in harmonizing the legal, institutional, financial, and operational aspects of their joint relationships to maximize the use of water made available under the City Water Rights.
- C. The City and Camrosa acknowledge that cooperatively they can most effectively maximize the beneficial use of the water available under the City Water Rights.
- D. In anticipation of the State Water Resources Control Board's Water Right Decision 1638 and based on the City's original Water Right application, first the City and the Calleguas Municipal Water District ("**Calleguas**"), and then Calleguas and Camrosa, executed agreements to cooperate in the appropriation of water pursuant to the pending water right decision. Subsequent to the State Water Resources Control Board's Water Right Decision 1638, but prior to appropriation of water under Water Right Permit 20952, the City and Calleguas renegotiated their previous agreement incorporating portions of Water Right Decision 1638 and portions of the City's original water right application. Camrosa and Calleguas continued to operate under their previous agreement.
- E. With Camrosa's assumption of full operation of the physical facilities necessary to appropriate the water pursuant to the City Water Rights, and the recoupment of Calleguas' capital investment in said facilities, the City, Calleguas and Camrosa have proven amenable to Calleguas ceding any and all control over or participation in the operation and management of said facilities, as outlined in any previous agreement pertaining thereto, and the City and Camrosa desire to re-establish and consolidate the terms of their contractual relationship consistent with the City Water Rights and the parties' relative roles in developing the City Water Rights.

- F. In re-establishing the terms under this Agreement, the parties wish to make this Agreement substantially cost or revenue neutral to all parties as compared to the terms of the previous agreements. This Agreement shall be interpreted consistent with this purpose.
- G. The parties acknowledge that through their cooperation to maximize the beneficial use of the waters available for appropriation under the City Water Rights, they have developed a water resource with regional significance.

NOW, THEREFORE, IT IS AGREED as follows:

1. Definitions

For the purposes of this Agreement, the following definitions shall apply:

- a. ***"City Measurement Station"*** shall refer to the flume and measurement apparatus placed by the City below the confluence of the north and south forks of the Arroyo Conejo to measure the combined flows from the Hill Canyon Wastewater Treatment Plant and water flowing downstream from the forks of the Arroyo Conejo. This facility is owned and operated by the City.
- b. ***"Camrosa Diversion"*** shall refer to the Conejo Creek Diversion structure located downstream and adjacent to the U.S. Highway 101 bridge over Conejo Creek and designated by Decision 1638 as the point of diversion for water appropriated pursuant to any water right or license pursuant to Water Right Decision 1638. This facility is owned and operated by Camrosa.
- c. ***"PVCWD Pipeline"*** shall refer to the pipelines constructed by Camrosa and Calleguas which extend from the Camrosa Storage Ponds pump station to the point of connection to the intersection of Laguna Road and Las Posas Road. This pipeline is owned and operated by Camrosa.
- d. ***"Camrosa Storage Ponds"*** shall refer to Camrosa's ponds located east of Conejo Creek and adjacent to Old Dairy Road.
- e. ***"Camrosa/Pleasant Valley Metering Stations"*** shall refer to the water metering station where water is metered for delivery into the Pleasant Valley County Water District's (PVCWD) irrigation water distribution system and any other meters connected to the Camrosa pipeline delivering water to the service area of PVCWD. These facilities are owned and operated by Camrosa.
- f. ***"CFS"*** shall mean cubic feet per second, a measurement of flowing water, which on a continuous basis equates to 724 acre feet per year, or 0.646 million gallons per day.

- g. “*City Water Rights*” shall refer to the City’s Water Right Permit 20952 issued by the State Water Resources Control Board pursuant to Water Right Decision 1638, and any subsequent license granted by the State Water Resources Control Board relating to the same.

2. Cooperation and Diligence in Perfecting Water Right License and Sharing Records

The parties agree to cooperate and exercise due diligence in meeting the requirements of the City Water Rights as specified below: (See Exhibit A for Calendar of routine actions required by the City’s Water Rights and this Agreement)

- a. The City shall be responsible for submitting such documentation to the State Water Resources Control Board as required to comply with Water Right Permit 20952, including without limitation Section 6 regarding complete application of water authorized by said Permit by December 31, 2025 or any extension granted thereto. In the event that the parties concur that additional water could be applied to beneficial use within the quantities limited by Water Right Permit 20952, Section 5; the City shall be responsible for petitioning the State Water Resources Control Board for an extension for a reasonable amount of time to put the full quantity of water provided by Water Right Permit 20952 to beneficial use.
- b. The City shall be responsible for submitting annual progress reports to the State Water Resources Control Board to comply with Water Right Permit 20952, Sections 15 and 16. The City shall provide copies of said progress reports to Camrosa.
- c. Camrosa shall keep metered records of dates of diversion, quantity of water diverted, and records documenting the bypass flow as required by Water Right Permit 20952, Sections 15 and 16, regarding quantification of flows. Such records shall be made available to the City for use in submitting its annual progress report above or as necessary to document water use under Water Right Permit 20952.
- d. Camrosa shall be responsible for submitting to the State Water Resources Control Board all reports documenting compliance with Water Right Permit 20952, Section 12, regarding water use efficiency and conservation. Camrosa shall provide copies of said reports to the City.
- e. The parties agree to share and provide the documents and information specified on Exhibit A attached to this Agreement and such other documents and information as the parties deem

reasonably necessary to maximize the water available under Water Right Permit 20952. It is the obligation of the City to timely advise Camrosa in writing of any such documents and information which are not specifically required in this Agreement.

3. Basis for Water Available for Sale

The City Water Rights provide the basis for the water available for sale by the City. Under Decision 1638, the quantity of water that the parties may put to beneficial use is described in terms of streamflow available at the Camrosa Diversion. That streamflow is quantified as:

Effluent discharged from the Hill Canyon Wastewater Treatment Plant

*minus* 2.0 CFS to account for channel losses en route to the point of diversion

*minus* 2.0 CFS dedicated by City to protect instream environmental resources

*plus* 4.0 CFS when the total streamflow at the Camrosa Diversion is greater than the sum of the effluent discharged from the Hill Canyon Treatment Plant plus the required downstream bypass of 6.0 CFS

*minus* 0.82 CFS to satisfy downstream Water Right License #12598, up to 306 acre feet per year.

As a practical matter, given the technical constraints in the continuous measurement and reconciliation of real-time flows, and various complicating factors, the parties agree that a reasonable and rational translation of Water Right Decision 1638's quantification of the City's Water Rights for the purposes of this Agreement is described in Section 4. Notwithstanding the foregoing, the City acknowledges and agrees that the City is ultimately responsible for maintaining the City's Water Rights including compliance with Water Right Decision 1638.

4. Quantification of Water Available for Sale

For the purposes of this Agreement, the parties agree that the water available for sale shall be determined annually and quantified as follows:

Twelve times the average monthly streamflow recorded at the City Measurement Station for the months of June, July, and August of the preceding year

*minus* 1448 acre feet to account for 2.0 CFS channel losses between the City Measurement Station and the Camrosa Diversion

*minus* 4344 acre feet to account for 6.0 CFS bypass downstream from the Camrosa Diversion

*minus* 306 acre feet to account for Water Right License #12598 downstream from the Camrosa Diversion (see Exhibit B for example calculation of water available).

5. Availability of Water and Purchase Commitments Among the Parties

- a. The City agrees to make available to Camrosa the total quantity of water available for sale as quantified in Section 4. Camrosa agrees to purchase from the City all such water made available to Camrosa under this Agreement for the price determined under Section 6 of this Agreement.
- b. Camrosa agrees to make the 6.0 CFS bypass releases downstream of the Camrosa Diversion as quantified in Section 4.
- c. Pursuant to Water Right Decision 1638, all water made available under this Agreement is limited to use within the boundaries of Camrosa and within the boundaries of the PVCWD.

6. Cost for Water Made Available

- a. The unit price per acre foot of water covered under this Agreement upon the Effective Date of this Agreement is \$104.89 per acre foot.
- b. On September 1<sup>st</sup> of each year, the parties agree to adjust the unit price per acre foot of water as described in subsections c and d below.
- c. The adjusted unit price per acre foot of water shall be determined by adjusting the previous year's unit price per acre foot of water by the annual percentage change from the preceding July to July period in the Consumer Price Index (Los Angeles-Riverside-Orange County, All Urban Consumers) as published by the U.S. Bureau of Labor Statistics (See Exhibit B for sample calculation). Notwithstanding the foregoing, in no event shall the adjusted unit price be more than 107% of the previous year's unit price and in no event shall the adjusted unit price be less than 93% of the previous year's unit price.
- d. The adjusted unit price so determined shall then be the amount per acre foot applied to the water available for sale, as quantified pursuant to Section 4, until the next September adjustment.

7. Costs Related to the Operation and Maintenance of Facilities (See Exhibit C for map of facilities).

- a. The City agrees to operate and maintain the City Measurement Station at its sole expense.
- b. Camrosa agrees to operate and maintain the Camrosa Diversion, Camrosa Storage Ponds, and the related pump station at the Camrosa Storage Ponds at its sole expense.
- c. Camrosa agrees to operate and maintain the PVCWD Pipeline. Routine maintenance of this pipeline will be at Camrosa's sole expense and shall include routine inspection and surveillance of pipeline right-of-way, valves, and other appurtenances and first response to reported emergencies.

8. Water Quality and Quantity Limitation

- a. The parties acknowledge that the City cannot guarantee to Camrosa the quality of water downstream of the City Measurement Station. Camrosa agrees to hold the City harmless from any and all claims, lawsuits, demands, judgments or other liability arising out of, directly or indirectly, the use of the water delivered under this Agreement, including but not limited to impurities, pollution, or chemicals which may be introduced downstream of the City Measurement Station into the water made available under this Agreement.
- b. The City agrees to exercise its best efforts to comply with the requirements of its National Pollution Discharge Elimination Permit (hereinafter referred to as "**NPDES Permit**") as well as all other applicable Federal, State and County statutes, laws and ordinances regarding the City's discharge of effluent to Conejo Creek and surface waters constituting water made available by the City under this Agreement.
- c. In the event that the City cannot treat its effluent substantially to the standards in applicable NPDES Permit or other applicable Federal, State, or County regulation, or in the event that the City is aware of a sewage spill or any other hazardous material introduced into the City's drainage system that would impair the quality of water subject to this Agreement, the City will immediately notify Camrosa by telephone. In particular, in the event that any substance listed pursuant to Public Health and Safety Code Section 25249.8 is discharged, the City shall immediately notify Camrosa by telephone. Camrosa shall provide the City at all times a current listing of emergency telephone numbers. The City will further

notify by telephone Camrosa when water made available under this Agreement is no longer impaired and available for beneficial reuse.

- d. Quantification of water impaired for reuse: Where water made available by the City at the City Measurement Station is rendered unusable for beneficial reuse due to failure to meet its NPDES Permit standards, hazardous materials spills, or standards in its municipal storm water permit, such water will be quantified by the City per day for every day or portion of any day when water is impaired for reuse and a pro-rated credit shall be applied to Camrosa for the cost of water as quantified in Section 6.
- e. The parties recognize that certain actions by agencies with statutory authority to regulate the water governed by this Agreement may jeopardize the ability of the parties to place the City Water Rights to beneficial use. Examples of these actions include, but are not limited to: modification of the City Water Rights, new regulation on the use of surface water, or implementation of Clean Water Act standards limiting the beneficial uses of such water or requiring additional treatment facilities. Either party may, upon written notice of such action to the other parties, request consultation among the parties to negotiate such amendments to this Agreement as may be necessary to continue to maximize the beneficial use of water available to the parties under the City Water Rights. To the extent that any action by others limits the ability of the parties to place the City Water Rights to beneficial use, the provisions for payment under this Agreement, to the extent of such limitation, shall be suspended pending renegotiation of this Agreement.
- f. The parties recognize that certain other conditions could substantially affect the balance of obligation and benefit among the parties such that the individual interests of one or more of the parties would no longer be rationally related to continued cooperation in maximizing the beneficial use of the water under the terms of this Agreement. Examples of these conditions include, but are not limited to: the inability of either party to deliver water due to distribution or treatment system failure, regulatory changes, or water quality degradation to the point that it is no longer acceptable to the customer base. In response to such changed conditions, either party may upon written notice of such action to the other party request consultation among the parties to negotiate such amendments to this Agreement as may be necessary to continue to maximize the beneficial use of water available to the parties under the City Water Rights. To the extent that any action by others limits the ability of the parties to place the City Water Rights to beneficial use, the provisions for payment of such water



under this Agreement shall be suspended pending renegotiation of this Agreement.

9. Schedule for Payments

- a. City shall bill Camrosa no later than October 1<sup>st</sup> for payment due for the period twelve months preceding measured from September 1<sup>st</sup> through August 31<sup>st</sup>. Payments shall be made to the City by Camrosa on or about November 15 of each year during the term of this Agreement. Payment for the last year (or any partial year) of this Agreement will be based upon the number of full months the water was made available by the City during the last year of the term of this Agreement.

10. Term of the Agreement

The term of this Agreement is forty (40) years from the Effective Date of this Agreement. The parties, by mutual consent, may extend the term of the Agreement for additional five-year periods.

11. Cooperation and Exchange of Information

The parties agree to cooperate, exchange information, and provide the availability of records necessary for the maintenance of the City Water Rights, administration of this Agreement, and operation of associated facilities.

12. Conservation Credits

From the Effective Date of this Agreement, Camrosa agrees to use reasonable efforts to secure conservation credits from the Fox Canyon Groundwater Management Agency for waters delivered by the project which offset the need to extract groundwater from the aquifers within the Fox Canyon Groundwater Management Agency. Camrosa agrees that one-half of the accumulated credits will be made available to the City.

13. Deliveries to PVCWD

Camrosa agrees to use reasonable diligence in providing surplus water, not needed by Camrosa, to the PVCWD.

14. Assignment

The parties agree that this Agreement may not be assigned without the written consent of all of the non-assigning parties.

15. Waiver: Remedies Cumulative

Failure by a party to insist upon the strict performance of any of the provisions of this Agreement by another party, irrespective of the length of time for which such failure continues, shall not constitute a waiver of such parties' rights to demand strict compliance by such other party in the future. No waiver by a party of a default or breach by another party or parties shall be effective or binding upon such party unless made in writing by such party, and no such waiver shall be implied from any omission by a party to take any action with respect to such default or breach. No express written waiver of a specified default or breach shall affect any other default or breach, or cover any other period of time, other than any default or breach and/or period of time specified. All of the remedies permitted or available to a party under this Agreement, or at law or in equity, shall be cumulative and alternative, and invocation of any such right or remedy shall not constitute a waiver or election of remedies with respect to any other permitted or available right or remedy.

16. Construction of Language of Agreement

The provisions of this Agreement shall be construed as a whole according to its common meaning and purpose of providing a public benefit and not strictly for or against any party. It shall be construed consistent with the provisions hereof, in order to achieve the objectives and purposes of the parties. Wherever required by the context, the singular shall include the plural and vice versa, and the masculine gender shall include the feminine or neutral genders or vice versa.

17. Mitigation of Damages

In all situations arising out of this Agreement, the parties shall attempt to avoid and minimize the damages resulting from the conduct of the other parties.

18. Governing Law

This Agreement, and the rights and obligations of the parties, shall be governed and interpreted in accordance with the laws of the State of California.

19. Captions

The captions or headings in the Agreement are for convenience only and in no other way define, limit or describe the scope or intent of any provision or section of the Agreement.

20. Authorization

Each party represents and warrants to the other that the execution, delivery, election to participate in, and performance of this Agreement (i) are within its powers, (ii) has been duly authorized by all necessary actions on its behalf and all necessary consents or approvals have been obtained and are in full force and effect; and (iii) binds said party and its respective administrators, officers, directors, agents, employees, successors, assigns, principals, joint ventures, insurance carriers, and any others who may claim through it under this Agreement.

21. Entire Agreement Between Parties

This Agreement supersedes any other agreements, either oral or in writing, between or among any of the parties hereto with respect to the beneficial use of water available for appropriation pursuant to State Water Resources Control Board Water Right Decision 1638, and contains all of the covenants and agreements between the parties with respect thereto. Any modifications of this Agreement will be effective only if it is in writing and signed by all of the parties to this Agreement.

22. Partial Invalidity

If any provision in this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions will nevertheless continue in full force without being impaired or invalidated in any way. To the extent permissible the illegal or invalid provision shall be modified, amended, or construed to make it legal or valid and carry out the purposes of the parties hereto.

23. Relationship of the Parties

The relationship of the parties to this Agreement shall be that of independent contractors and in no event shall any party be considered a partner, officer, agent, servant or employee of any other party. Without limiting the foregoing, each party agrees to be solely responsible for any workers compensation, withholding taxes, unemployment insurance and any other employer obligations associated with the described work or obligations assigned to them under this Agreement.

24. Notices

Any notice required to be given hereunder shall be deemed to have been given by depositing said notice in the United States mail, postage prepaid, and addressed as follows:

|             |   |
|-------------|---|
| To City:    | City of Thousand Oaks<br>Attn: Public Works Director<br>2100 Thousand Oaks Boulevard<br>Thousand Oaks, CA 91362 |
| To Camrosa: | Camrosa Water District<br>Attn: General Manager<br>7385 Santa Rosa Road<br>Camarillo, CA 93012                  |

25. Effective Date.

This Agreement shall take effect on September 1, 2013, provided the following events have taken place (the "***Effective Date***"):

- a. Upon due approval of this Agreement as required by its governing documents and applicable law, City shall execute this Agreement and deliver a duly executed original to Camrosa; and
- b. Upon due approval of this Agreement as required by its governing documents and applicable law, Camrosa shall execute this Agreement and deliver a duly executed original to City; and
- c. Upon receipt by Camrosa and City of (1) the Thousand Oaks – Calleguas Termination Agreement duly executed by City and Calleguas, and (2) the Camrosa – Calleguas Termination Agreement duly executed by Camrosa and Calleguas.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date in Ventura County, California.

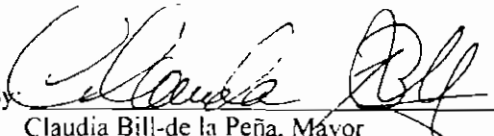
Dated: 6/5, 2013

CAMROSA WATER DISTRICT

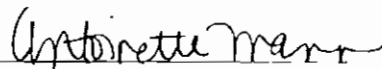
By: Tony Stafford  
Tony Stafford, General Manager

Dated:   May 28  , 2013

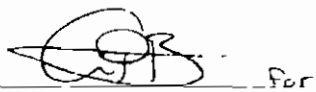
CITY OF THOUSAND OAKS

By:   
Claudia Bill-de la Peña, Mayor

ATTEST:

  
for Linda D. Lawrence, City Clerk

APPROVED AS TO ADMINISTRATION:

  
Scott Mitnick, City Manager

APPROVED AS TO FORM:

Office of the City Attorney

  
Christopher G. Norman, Assistant City Attorney

# Exhibit A

## Calendar of Annual Actions

### (Agreement Section 2)

The following actions are required by the Agreement between the City of Thousand Oaks and the Camrosa Water District for the Beneficial Use of Water Pursuant to State Water Resources Control Board Water Right Decision 1638.

| <b>Month/Action</b>  | <b>Responsible Party</b> | <b>Send to</b> |
|--|--------------------------|----------------|
| <u>January</u>   |                          |                |
| Daily & monthly diverted & by-pass flows at Camrosa Diversion  | Camrosa                  | City           |
| Water diversion at Camrosa Diversion Annual Report (daily and monthly for the previous calendar year)                                    | Camrosa                  | City           |
| <u>February, March, April &amp; May</u>  |                          |                |
| Daily & monthly diverted & by-pass flows at Camrosa Diversion  | Camrosa                  | City           |
| <u>June</u>  |                          |                |
| Daily & monthly diverted & by-pass flows at Camrosa Diversion  | Camrosa                  | City           |
| Daily stream flows at City Measurement Station   | City                     | Camrosa        |
| Annual Progress Reports to SWRCB (due June 30)   | City                     | SWRCB/Camrosa  |
| <u>July &amp; August (August 31 is end of water year)</u>  |                          |                |
| Daily & monthly diverted & by-pass flows at Camrosa Diversion  | Camrosa                  | City           |
| Daily stream flows at City Measurement Station   | City                     | Camrosa        |
| <u>September (1<sup>st</sup> is beginning of water year)</u>   |                          |                |
| Daily & monthly diverted & by-pass flows at Camrosa Diversion  | Camrosa                  | City           |
| Calculate average monthly stream flow based on June, July, and August  | City                     | Camrosa        |
| Calculate the adjusted unit price per acre foot of water (see Agreement Section 6 & Exhibit B)   | City                     | Camrosa        |
| Invoice for previous 12 months water usage, Sep 1-Aug 31 (due October 1- see Agreement Sections 4, 6 & 9, and Exhibit B)                 | City                     | Camrosa        |
| <u>October</u>   |                          |                |
| Daily & monthly diverted & by-pass flows at Camrosa Diversion  | Camrosa                  | City           |
| Compliance report for Water Right Permit 20952, Section 12 regarding water use efficiency. (every 5 <sup>th</sup> year starting in 2014) | Camrosa                  | SWRCB/City     |
| <u>November</u>  |                          |                |
| Daily & monthly diverted & by-pass flows at Camrosa Diversion  | Camrosa                  | City           |
| Payment by Camrosa to City (due November 15)   | Camrosa                  | City           |
| <u>December</u>  |                          |                |
| Daily & monthly diverted & by-pass flows at Camrosa Diversion  | Camrosa                  | City           |

## Exhibit B

### Example Calculations of Quantity and Cost of Water Available for Sale (Agreement Sections 4 and 6)

#### Example water available for sale quantity calculation:

(Example is for period September 1, 2012 through August 31, 2013)

Average daily flow for June, July and August 2012 = 11.48 mgd

Total water quantity = 11.48 mgd average flow x 365 days x 3.07 acre feet /mg = 12,864 acre feet

12,864 acre feet total water quantity

Less 1448 acre feet channel losses

Less 4344 acre feet downstream by-pass

Less 306 acre feet downstream existing water right

Equals 6,766 acre feet total water available for sale

(reduce total water available for sale further per Subsection 8d, if applicable)

#### Example water available for sale cost calculation:

(Calculation occurs in September of each year; example is for September 2013; CPI is for All Urban Consumers, Los Angeles – Riverside – Orange County, All Items, 1982-84 = 100)

2012 price per acre foot of water = \$ 102.90

July 2012 CPI = 235.776

July 2011 CPI = 231.303

Annual percent CPI change =  $(2012 \text{ CPI} - 2011 \text{ CPI}) / 2011 \text{ CPI} \times 100 = (235.776 - 231.303) / 231.303 \times 100 = 1.93\%$

Adjusted unit price for water = 2012 unit price x  $1 + \text{annual percent CPI change (decimal)}$  =  
 $\$102.90 \times 1.0193 = \underline{\$104.89 \text{ per acre foot}}$

Cost for water available for sale = total water available for sale x adjusted unit price for water =  
 $6,766 \text{ acre feet} \times \$104.89 \text{ per acre foot} = \underline{\$709,686}$

EXHIBIT C

(Agreement Section 7)

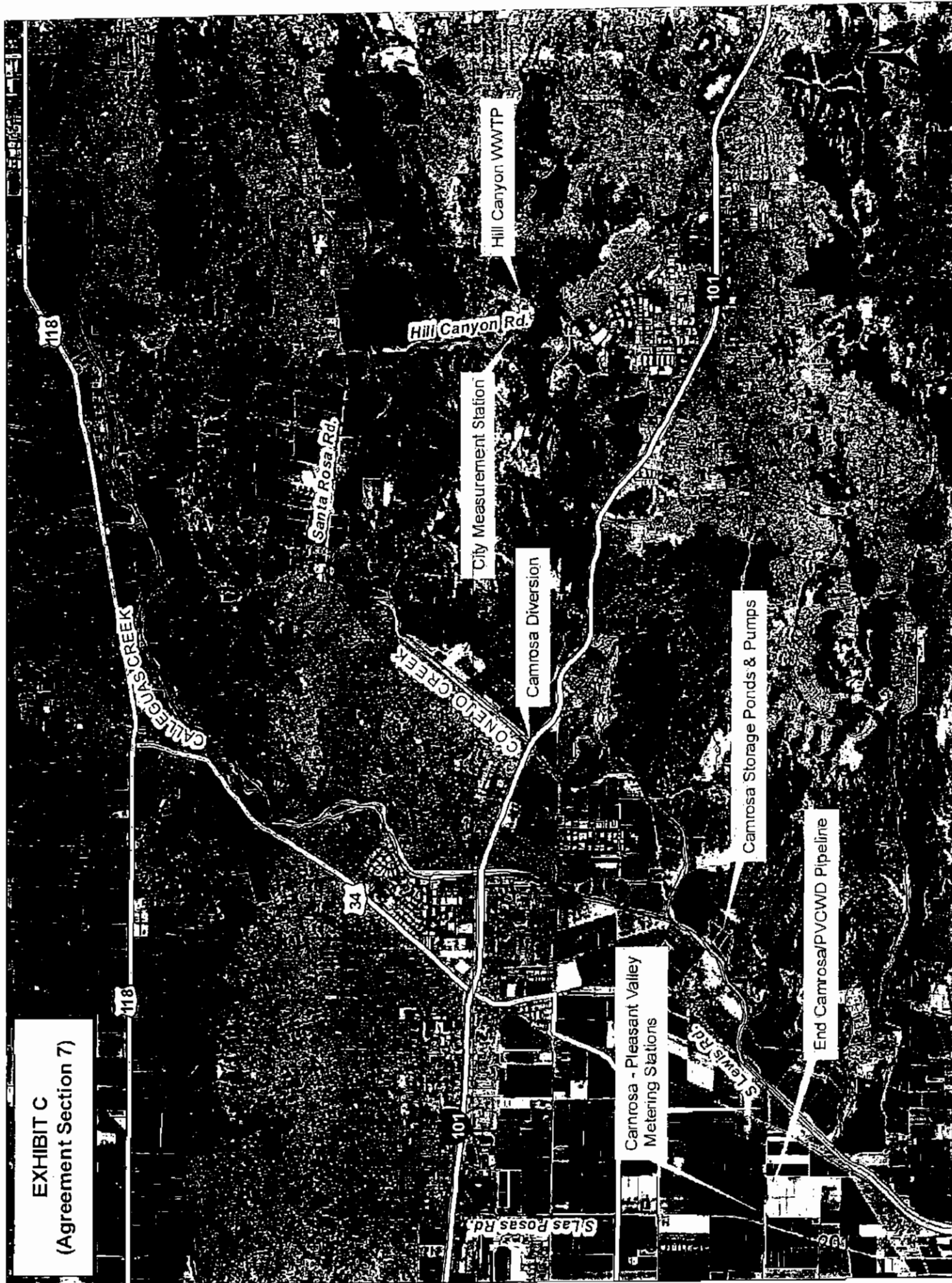




Exhibit B

(Copy of Fox Canyon Groundwater Management Agency Resolution 2014-01)

(See Attached)

**Resolution 2014-01**  
**of the**  
**Fox Canyon Groundwater Management Agency**

**A RESOLUTION ESTABLISHING THE CONEJO CREEK WATER PUMPING PROGRAM  
INVOLVING CAMROSA WATER DISTRICT AND PLEASANT VALLEY COUNTY WATER  
DISTRICT USING THE CONEJO CREEK DIVERSION**

**WHEREAS**, the Fox Canyon Groundwater Management Agency Ordinance Code allows an operator to obtain storage credits for water that has been determined by the Agency Board to be foreign water stored.

**WHEREAS**, Calleguas Municipal Water District ("Calleguas"), Camrosa Water District ("Camrosa"), the City of Thousand Oaks, and Pleasant Valley County Water District ("Pleasant Valley") entered into various agreements to cooperate in the appropriation and beneficial use of the recycled water and recaptured water, including the construction and operation of facilities ("Conejo Creek Project" or "Project") to convey recycled water and recaptured water (collectively, "Project Water") to Camrosa and Pleasant Valley.

**WHEREAS**, among the agreements referenced above was an agreement between Calleguas and Pleasant Valley in 1994 setting forth the terms by which Pleasant Valley may purchase from Calleguas certain Project Water diverted through the Project to Pleasant Valley for utilization within Pleasant Valley's jurisdictional boundaries ("1994 Agreement").

**WHEREAS**, the 1994 Agreement provided that certain credits may accrue to Pleasant Valley under Fox Canyon Groundwater Management Agency ("Agency") ordinances and that Pleasant Valley shall transfer, in accordance with Agency ordinances, an acre-foot of credits as earned to Calleguas for each acre-foot of water delivered to Pleasant Valley from the Conejo Creek Project.

**WHEREAS**, the Agency Board in May 28, 2003, determined, approved and conditioned that water diverted by the Conejo Creek Project is foreign water and that deliveries of surface water from the Conejo Creek Project to Pleasant Valley's storage reservoir qualify for credits.

**WHEREAS**, under the 2003 approved program, credits earned by Pleasant Valley for deliveries of Conejo Creek Project water to meet local irrigation demands in lieu of groundwater pumping were transferred from Pleasant Valley to Calleguas Municipal Water District which may in turn transfer those credits to United Water Conservation District ("United") under the Supplemental M&I Water Program.

**WHEREAS**, Calleguas and United intend to continue to utilize credits through the Supplemental M&I Program, but Calleguas wishes to terminate its future participation in the Conejo Creek Project and cease accruing additional credits after the 1994 Agreement is terminated.

**WHEREAS**, Camrosa and Pleasant Valley propose to enter into an agreement by which Camrosa will sell Conejo Creek Project Water to Pleasant Valley ("Water Sale Agreement").

The substantive provisions of the Water Sale Agreement generally mirror the provisions of the 1994 Agreement.

**WHEREAS**, the proposed Water Sale Agreement provides that, subject to Agency approval, Pleasant Valley shall transfer to Camrosa, pursuant to applicable Agency rules and regulations, credits as earned for each acre-foot of water delivered to Pleasant Valley from Camrosa through the Conejo Creek Project

**WHEREAS**, the Conejo Creek Project is recognized in the Agency's Groundwater Management Plan as one of several strategies for bringing the aquifers of the Agency into balance, and the proposed Water Sale Agreement will help ensure that Project Water will continue to be utilized by Pleasant Valley.

**WHEREAS**, the Agency Ordinance Code authorizes the adjustment of extraction allocations consistent with the goal of reaching safe yield.

**WHEREAS**, an Impact Analysis (Analysis), dated December 12, 2013, concludes: 1) Deliveries of Conejo Creek Project water to Pleasant Valley have significantly reduced groundwater pumping by Pleasant Valley; 2) Conejo Creek Project water has the added benefit of being drought-proof because of its component of recycled water; 3) Pumping is moved away from the pumping depression and the coast to a more-inland area of better stormwater recharge; 4) Without the agreement, Conejo Creek Project water is delivered elsewhere and Pleasant Valley pumping would increase to replace that water source, resulting in a further drop of groundwater elevations; and 5) thus, the Conejo Creek Water Pumping Program is a net advantage to the basin.

**WHEREAS**, to the extent that cumulative extractions by Camrosa never exceed deliveries to Pleasant Valley, the proposed Water Sale Agreement will result in a net benefit to the Pleasant Valley Basins.

**NOW, THEREFORE, IT IS HEREBY ORDERED AND RESOLVED THAT:**

1. The Board approves the Conejo Creek Water Pumping Program involving Camrosa Water District and Pleasant Valley County Water District using the Conejo Creek Diversion.
2. Camrosa's cumulative pumping extractions through this program shall never exceed the cumulative deliveries to Pleasant Valley through this program. *The transfer of credits between Pleasant Valley and Camrosa is approved, as set forth in the Pleasant Valley/Camrosa agreement attached hereto and made a part hereof by reference.*
3. Camrosa will actively meter extraction quantity and monitor:
  - a. Water levels: Transducers in the Woodcreek Well and any new well Camrosa constructs in the PV Basin will record water levels on at least a monthly basis.
  - b. Water quality: Camrosa will monitor at least annually the water quality of the Woodcreek Well and any new wells that are part of this Resolution.
4. Camrosa shall submit an Annual Report to the Agency by February 1st each year, which shall include:

- a. Conejo Creek Project water delivery amounts to Pleasant Valley;
  - b. Credits retired in accordance with deliveries to Pleasant Valley;
  - c. Camrosa's cumulative deliveries to Pleasant Valley;
  - d. Well extractions under this program;
  - e. Water quality data;
  - f. Historical and past year water level well data from Camrosa's Pleasant Valley basin well(s); and
  - g. Drawdown analysis from extractions.
5. For the purpose of determining net impacts to the basin as a result of this agreement the Agency and Camrosa shall meet during the first week of May annually to review the contents of the Annual Report and its conclusion. If there are disagreements with the findings of net detriment, the matter may be referred to the FCGMA Board.
6. Camrosa will incrementally phase in extractions as follows:
  - a. Calendar Year 2014: Extractions will be limited to 200 AF.
  - b. Calendar Year 2015: Extractions will be limited to 1,000 AF.
  - c. Calendar Year 2016: Extractions will be limited to 2,000 AF.
  - d. Calendar Year 2017: If monitoring data indicates the basin will support it, extractions will be limited to 3,000 AF.
  - e. Calendar Year 2018: If monitoring data indicates the basin will support it, extractions will be limited to 4,500 AF.
  - f. All subsequent years: If monitoring data indicates the basin will support it, extractions will be limited to 4,500 AF annually.
7. Camrosa shall extract from Camrosa-owned wells and may supply groundwater so extracted within its service territory in accordance with Agency Resolution No. 2011-01.
8. The extractions referenced in this agreement are in addition to Camrosa's existing 806 AF yearly allocation currently being pumped at Woodcreek Well. The existing 806 AF allocation will be the first utilized for extraction.
9. This resolution will terminate on the same date as the agreement between Camrosa and Pleasant Valley regarding this program or 30 days after mutual agreement between the Agency and Camrosa.

On motion of Director Craven, seconded by Director Bennett, the foregoing resolution was passed and adopted on this 26<sup>th</sup> day of March 2014.

By:   
Lynn E. Maulhardt, Chair, Board of Directors  
Fox Canyon Groundwater Management Agency

ATTEST: I hereby certify that the above is a true and correct copy of Resolution No. 2014-01

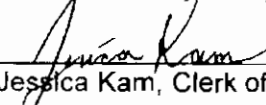
By:   
Jessica Kam, Clerk of the Board

Exhibit C

(Copy of Termination Agreement)

(See Attached)

## **TERMINATION AND RELEASE AGREEMENT**

This Termination and Release Agreement ("Agreement") is entered into between PLEASANT VALLEY COUNTY WATER DISTRICT ("Pleasant Valley"), a California county water district formed pursuant to California Water Code Section 30000, et seq. and CALLEGUAS MUNICIPAL WATER DISTRICT ("Calleguas"), a municipal water district formed pursuant to California Water Code Section 71000 et seq. Calleguas and Pleasant Valley are at times collectively referred to as "Parties" or individually as "Party."

### **RECITALS**

**A.** Pleasant Valley's primary mission is to provide water to agricultural users within the boundaries of its district, and to maintain and preserve the limited groundwater resources within its district. The Oxnard Plain groundwater aquifers, which are the source of Pleasant Valley's groundwater supplies, are subject to overdraft, and Pleasant Valley is seeking alternative water supplies.

**B.** The City of Thousand Oaks ("Thousand Oaks") owns and operates the wastewater treatment facilities known as the Hill Canyon Wastewater Treatment Plant, from which treated wastewater ("Recycled Water") is discharged to Conejo Creek. Thousand Oaks petitioned the State Water Resources Control Board ("SWRCB") for certain water rights over the Recycled Water and certain return flows from imported water used within Thousand Oaks' corporate boundaries ("Recaptured Water").

**C.** In anticipation of the SWRCB's decision, and based upon Thousand Oaks' original Water Right application, Calleguas Municipal Water District ("Calleguas"), Camrosa, Thousand Oaks, and Pleasant Valley entered into various agreements to cooperate in the appropriation and beneficial use of the Project Water, including the construction and operation of facilities ("Conejo Creek Project") to convey Recycled Water and Recaptured Water (collectively, "Project Water") to Camrosa and Pleasant Valley.

**D.** Among the agreements referenced in Recital C, above, was an agreement between Pleasant Valley and Calleguas dated the "\_\_ day of \_\_\_\_\_ 1994" (without the day and month specified) setting forth the terms by which Pleasant Valley may purchase from Calleguas certain Project Water diverted for delivery to Pleasant Valley for utilization within Pleasant Valley's jurisdictional boundaries ("1994 Agreement").

**E.** Thousand Oaks, Camrosa, Pleasant Valley and Calleguas all agree that the Conejo Creek Project will remain viable if Calleguas terminates its participation in the Project. Accordingly, Calleguas has entered into termination agreements with Thousand Oaks and Camrosa, and Thousand Oaks and Camrosa have now entered into a new agreement re-establishing and consolidating the terms of their relationship with respect to the Conejo Creek Project pursuant to State Water Resources Control Board Water Rights Decision 1638 ("Decision 1638") and the corresponding Water Right Permit 20952 issued by the SWRCB to Thousand Oaks. In accordance with that new agreement between Thousand Oaks and Camrosa, Project Water may be available for sale by Camrosa to Pleasant Valley.

**F.** Camrosa and Pleasant Valley have now entered into an agreement for the sale of water establishing the terms and conditions by which Camrosa may deliver Project Water to Pleasant Valley in accordance with State Water Resources Control Board Water Rights Decision 1638 and the corresponding Water Right Permit 20952.

**G.** The enforceability and implementation of the agreement between Camrosa and Pleasant Valley referenced in Recital F, above, is conditioned upon Pleasant Valley and Calleguas terminating the 1994 Agreement.

**H.** In order to facilitate the agreement for the sale of water between Camrosa and Pleasant Valley referenced in Recital F, above, Pleasant Valley and Calleguas now desire to enter into this Agreement setting forth the terms and conditions under which the 1994 Agreement shall be terminated and the Parties released from their respective obligations thereunder.

### **AGREEMENT**

**NOW, THEREFORE**, it is agreed as follows:

**1. Incorporation.** The above Recitals are hereby incorporated into this Agreement by reference.

**2. Termination of the 1994 Agreement.**

**2.1.** The 1994 Agreement shall terminate on the date that Pleasant Valley notifies Calleguas in writing (the "Termination Notice") that all conditions precedent to the agreement between Pleasant Valley and Camrosa referenced in Recital F, above, have been satisfied ("Termination Date"). Pleasant Valley agrees to provide such notice as soon as reasonably possible upon satisfaction of such conditions precedent. Except as provided in Section 4, below, all obligations of the Parties under the 1994 Agreement shall terminate on the Termination Date in the same manner and with the same effect as if that date had been originally fixed in the 1994 Agreement for the expiration of the term.

**2.2.** Within two working days after Calleguas receives the Termination Notice, Calleguas shall obtain meter reads to document the amount of water delivered to Pleasant Valley through the Termination Date. Within sixty days after Calleguas receives the Termination Notice, Calleguas shall invoice Pleasant Valley and within forty-five days thereafter Pleasant Valley shall pay Calleguas for the water delivered through the Termination Date pursuant to the provisions of Section 4 of the 1994 Agreement. In January or July (whichever is earlier) immediately following the Termination Date, Calleguas and Pleasant Valley shall submit a joint letter to the Fox Canyon Groundwater Management Agency requesting transfer of groundwater storage credits equal to the amount of the water delivered from Calleguas to Pleasant Valley pursuant to the 1994 Agreement during the preceding six months. In accordance with Section 5 of the 1994 Agreement, all such storage credits shall be transferred to Calleguas.

**3. Release of Liability.** Except for each Party's obligations pursuant to this Agreement, and except as otherwise provided in Section 4, below:

**3.1.** As of the Termination Date, each Party to this Agreement mutually, fully and unconditionally releases and discharges the other, and their respective officers, directors, employees, and other representatives, from any and all claims, demands, causes of action, obligations, and liabilities of every kind and nature whatsoever which each had, or claims to have had, or now has, against the other, which relates to or arises out of the 1994 Agreement.

**3.2.** It is further understood and agreed that each Party hereby waives any and all rights under California Civil Code Section 1542, which reads as follows:

"A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR."

Each Party acknowledges that it has received the advice of legal counsel with respect to the aforementioned waiver and understands the terms thereof.

4. **Continuing Liability.** Notwithstanding the termination of the 1994 Agreement and the release of liability provided for herein, Pleasant Valley shall remain liable, with respect to the term of the 1994 Agreement prior to the Termination Date, for the performance of all of its obligations under the 1994 Agreement, and Calleguas shall have all the rights and remedies with respect to such obligations as set forth in the 1994 Agreement. Without limiting the foregoing, Pleasant Valley is not released from its obligation to hold Calleguas harmless with respect to water quality as provided in Section 7 of the 1994 Agreement, and such obligation shall continue in full force and effect notwithstanding this Agreement.

5. **Governing Law.** This Agreement shall be governed and construed under the laws of the State of California.

6. **Counterparts.** This Agreement may be executed in counterparts, each of which shall be deemed an original, but such counterparts, when taken together, shall constitute one agreement.

7. **Binding Effect.** This Agreement shall inure to the benefit of, and shall be binding upon, the Parties.

8. **Time of the Essence.** Time is of the essence of this Agreement and the provisions contained herein.

9. **Further Assurances.** Pleasant Valley and Calleguas hereby agree to execute such further documents or instruments and take such actions as may be reasonably necessary or appropriate to carry out the intention of this Agreement.

10. **Voluntary Agreement.** The parties have read this Agreement and mutual release as set forth and have freely and voluntarily entered into this Agreement.

11. **Effective Date.** This Agreement shall be deemed effective upon execution by the last party to sign this Agreement.

IN WITNESS WHEREOF, the Parties have entered into this Agreement as of the Effective Date.

CALLEGUAS MUNICIPAL WATER DISTRICT

By: \_\_\_\_\_  
Susan Mulligan, General Manager

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



**PLEASANT VALLEY COUNTY WATER DISTRICT**

By: \_\_\_\_\_  
Thomas P. Vujovich, President, Board of Directors

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

By: \_\_\_\_\_  
David Souza, General Manager

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

**APPROVED AS TO FORM:**

By \_\_\_\_\_  
John Mathews, General Counsel

# Camrosa Water INDEPENDENT

[www.camrosa.com](http://www.camrosa.com)

Summer 2013

## WATER SELF-RELIANCE

THE **SOONER** THE **BETTER**

### WaterSmart Rebates

To encourage water conservation, Camrosa continues to work with Metropolitan Water District to distribute rebates on a variety of indoor and outdoor products, including high efficiency washing machines, toilets and rotating sprinkler nozzles. Estimate your potential rebates at [www.SoCalWaterSmart.com](http://www.SoCalWaterSmart.com).



### Rate Increase/Bill Calculator

New rates based upon the recently completed rate study will be effective July

1st. Use the 'Bill Calculator' under Customer Services at [Camrosa.com](http://Camrosa.com) to estimate the cost of water under the new rate structure.



### Save \$ with Free Sprinkler Nozzles

While supplies last, save up to 30%

**Free  
Sprinkler  
Nozzles  
.com**

on your outdoor water use! Camrosa is one of four local water

agencies participating at [www.freesprinklernozzles.com](http://www.freesprinklernozzles.com). Watch a short video to determine which sprinkler nozzles you need before getting a voucher for up to 25 free nozzles.

### Camrosa Board of Directors

Division 1  
AIE. Fox

Division 2  
Jeffrey C. Brown, VP

Division 3  
Timothy H. Hoag

Division 4  
Eugene F. West, President

Division 5  
Terry L. Foreman

## Desalter Construction Marks Next Step In Building Local Water Supply



Southern California's water supply comes in large part from the Sacramento-San Joaquin Delta, which is fed by snowfall in the Northern California Sierra Nevada.

Unfortunately, for reasons enumerated in the news and past issues of the Camrosa Independent, there is a great deal of uncertainty about snowpack levels, rainfall and the sustainability of exporting Delta water to Southern California. This underlines the necessity for Camrosa and other local water districts to continue

to build local resources, an increasingly important tenant of Southern California's water supply. This has been Camrosa's mantra for decades as we have focused on transferring demand off the potable system and developing drinking water sources.

### Round Mountain Desalter on its Way!

Construction has started on Camrosa's Round Mountain Water Treatment Plant, which will be capable of producing 1,000 acre-feet a year (AF/Y) of potable water. The desalination facility will remove chlorides and other salts from groundwater, making it suitable for drinking and irrigation. Initial estimates are the desalter will reduce expensive imported water

dependence by nearly 1 million gallons a day (MGD) – about 10% of the District's potable demand. Completion is expected around February 2014.

### Interagency Partnerships

The Round Mountain desalter will tie into Calleguas's \$83-million Salinity Management Pipeline. The SMP will stretch from Simi Valley to Port Hueneme, carrying the brine by-product of the desalination process out to sea. Camrosa may participate in another desalination facility, the

interagency Regional Desalter, which would also tie into the SMP. The Regional Desalter will have the capacity to produce up to 5 MGD (7,300 AF/Y) of drinking water, Camrosa's portion of which would reduce imported demand by another 10 percent. In an agreement with Thousand Oaks, Camrosa recently secured for a term of 40 years the water in Conejo Creek, which provides 4,500 AF/Y of non-potable water for irrigation.



Camrosa's initiatives work toward increased self-reliance in order to minimize the impact of imported water rate increases and provide our customers with an uninterrupted, safe, and affordable water supply.

**“continue  
to build local  
resources”**





## Value of Water

Tap water, an integral part of our lives, is not only valuable, but also inexpensive when compared with bottled water:

**Gallon of Bottled Water** \$1.39/gallon  
**Case of Bottled Water** \$7.99 for 35 16.9 oz bottles  
**Your Tap Water** \$.0036/gallon

At less than a penny per gallon, tap water is a bargain. This is especially true when you consider the costs of maintaining infrastructure, electricity/energy, water quality testing and treatment, and the delivery that goes into bringing a safe and reliable water supply to your home – plus of course, the cost of developing new supplies.

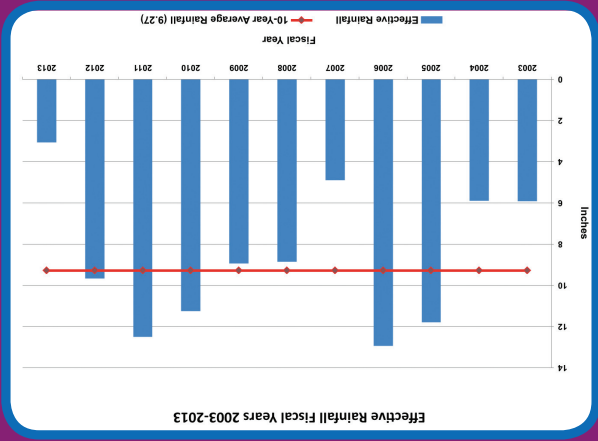
|  |  |  |  |
|--|--|--|--|
| <br>A GALLON OF | <br>A GALLON OF | <br>A GALLON OF | <br>A Gallon of TAP WATER |
| \$2.49   | \$1.39   | \$16.00  | \$0.0036   |

**The Best Deal Around**

## Dry Conditions Fuel Fires, Raise Question Of Drought

What happened to the rain, the snow in the Sierras, the lovely green hills we enjoyed towards the end of 2012? The blackened hills off the 101 are a stark and local reminder that we are experiencing a very dry year; corroborated by the Department of Water Resources May 2nd report that the snowpack water content is only 17% of normal. Yes – seventeen percent. So while it rained throughout November and December, the snowpack was wiped out by an extremely dry January through March.

This underlines the importance of water conservation and the need to protect and build local water resources. As detailed in this issue's main article, Camrosa is focused on developing local alliances and resources to minimize our dependence on regulatory-restricted and expensive imported water. In the meantime, we appreciate your water awareness and attempts at conservation.



**2010**

# **Urban Water Management Plan**



## **Camrosa Water District**

**7385 Santa Rosa Road**

**Camarillo, California 93012**

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## LIST OF ACRONYMS

|            |   |
|------------|---|
| AF         | Acre-feet                                       |
| AF/D       | Acre-feet per day                               |
| AF/Y       | Acre-feet per year                              |
| ASR        | Aquifer Storage and Recovery                    |
| BMP        | Best Management Practice                        |
| CamSan     | Camarillo Sanitation District                   |
| CDPH       | California Department of Public Health          |
| CIS        | Customer Information System                     |
| CFS        | cubic feet per second                           |
| CSUCI      | California State University Channel Islands     |
| CVP        | Central Valley Project                          |
| CUWCC      | California Urban Water Conservation Coalition   |
| CWRF / WRF | Camrosa Water Reclamation Facility              |
| DHS        | Department of Health Services                   |
| DMM        | Demand Management Measures                      |
| DWR        | California Department of Water                  |
| ETo        | Evapotranspiration                              |
| FCGMA      | Fox Canyon Groundwater Management Agency        |
| GIS        | Geographic Information System                   |
| GPCD       | Gallons Per Capita Per Day                      |
| GPM        | gallons per minute                              |
| HCWWTP     | Hill Canyon Wastewater Treatment Plant          |
| HET        | High-Efficiency Toilets                         |
| ICS        | Incident Command System                         |
| LAS        | Lower Aquifer System                            |
| M&I        | Municipal & Industrial                          |
| MCL        | Maximum Containment Level                       |
| MGD        | Million Gallons per Day                         |
| MS         | Meter Station                                   |
| MSA        | Metropolitan Statistical Area                   |
| MSL        | mean sea level                                  |
| PHG        | Public Health Goal                              |
| PVB        | Pleasant Valley Basin                           |
| PVCWD      | Pleasant Valley County Water District           |
| RMWTP      | Round Mountain Water Treatment Plant            |
| RO         | Reverse Osmosis                                 |
| RWRMP      | <i>Renewable Water Resource Management Plan</i> |
| SEMS       | Standard Emergency Management System            |
| SOAR       | Save Open Space and Agricultural Resources      |
| SRGMP      | Santa Rosa Groundwater Management Plan          |
| SWRCB      | State Water Resources Control Board             |
| TDS        | Total Dissolved Solids                          |

|         |  |
|---------|--|
| UAS     | Upper Aquifer System                                       |
| ULFT    | Ultra Low Flush Toilet                                     |
| UWMP    | <i>Urban Water Management Plan</i>                         |
| VCOG    | Ventura Council of Governments                             |
| VC-Rule | Ventura County Regional Urban Landscape Efficiency Program |
| WBIC    | Weather-Based Irrigation Controllers                       |
| WSDM    | Water Surplus and Drought Management                       |

## Introduction

### PURPOSE AND NEED

The Act requires that the Urban Water Management Plan (UWMP) developed by each agency be updated every five years and submitted to the Department of Water Resources for review. Due to newly enacted legislation, the required content of the UWMP has changed significantly for the 2010 UWMP preparation and is quite specific. A major water conservation-related bill passed during the 2009 session and signed into law by the Governor is SBX7-7, which amends the Act effective January 1, 2010. A key component of this new legislation sets a goal of 20 percent reduction in per capita water use and directs urban retail water suppliers to set both interim 2015 and final 2020 urban water use targets. Additionally, AB 1420, effective January 1, 2009, amends the UWMP Act to require that the terms of and eligibility for, any water management grant or loan made to an urban water supplier administered by the DWR, be conditioned on the implementation of water Demand Management Measures described in section 10631(f) of the UWMP Act.

This Urban Water Management Plan was adopted by the Board of Directors on June 8, 2011. The purpose of this plan is to:

- update the data contained in the Urban Water Management Plan 2005
- extend the planning horizon of that plan for an additional 5-year period
- provide comprehensive assessment of Camrosa's water resource needs for a 20-year planning period
- develop a plan to meet the Water Conservation Act of 2009's (SBX7-7) requirements for achieving interim 2015 and final 2020 urban water use targets
- provide the Department of Water Resources with information on present and future water sources and demands.

The UWMP has been coordinated with a number of agencies to ensure that data and issues are presented accurately. It fully complies with the content requirements of the Urban Water Management Planning Act and is integrated with the District's *Integrated Facilities Master Plan*.

## Section 1 Plan Preparation

### LAW

California Water code, Division 6, Part 2.6 Urban Water Management Planning, Section 10610 et seq.

10620(d) (2). Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

10621(b). Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

(c). The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

10642 Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

10643 An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

10644(a) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

10645 Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

#### A. Coordination within the District

This plan was developed within Camrosa Water District to coincide with the 2011 update of the District's Integrated Facilities Master Plan. It reflects the most recent Water Supply and Water Demand Analyses completed for the Master Plan and relies upon relevant information on the District's groundwater resources contained the 1997 Santa Rosa Groundwater Basin Management Plan; a 2009 study by Norman N. Brown, PH.D., P.G., entitled, *Groundwater Geology and Yield Analysis of the Tierra Rejada Basin*; and J.P. Schaaf's 1998 CSU-Northridge MS thesis, *Hydrogeology of the Tierra Rejada Groundwater Basin* and various other sources of information within Ventura County on groundwater information for the Pleasant Valley, Santa Rosa and Tierra Rejada groundwater basins. This plan has also been coordinated with the Renewable Water Resources Management Plan adopted by the District in October, 2006.

## B. Interagency Coordination

Of the approximately 30 square miles within the Camrosa Water District's boundaries, about 7 square miles lie within the City of Camarillo city limits, approximately 1.5 square miles lie within the boundaries of the City of Thousand Oaks and 21.5 square miles lie within the unincorporated area of Ventura County.

In 2010, 19,561 acre-feet (AF) of water was produced or imported by the District and delivered to District customers for both potable and non-potable use. Approximately 45% of the total water supply was recycled water purchased from the City of Thousand Oaks and diverted from Conejo Creek for use as non-potable irrigation supply; 8% recycled water produced from the Camrosa Waste Water Treatment Plant; 29% was imported through the Metropolitan Water District and its wholesale agency, Calleguas Municipal Water District; and the remainder of the water was pumped from local groundwater aquifers. Two aquifers, the Tierra Rejada Groundwater Basin and the Santa Rosa Groundwater Basin, lie wholly within the District's boundaries and jurisdiction, while the Fox Canyon aquifer system, of which the District accesses only a portion for both water storage and recovery, is managed by the Fox Canyon Groundwater Management Agency (FCGMA), which was established December 21, 1982.

In June 2006, the District adopted the *Integrated Regional Watershed Management Plan for the Calleguas Creek Watershed*. The District developed the IRWMP in coordination with the Cities of Thousand Oaks, Camarillo, and Simi Valley; Calleguas Municipal Water District, Ventura County Water Works Districts 1 and 19, Ventura County Resource Conservation District; and Santa Monica Mountains Recreation and Conservation Agency. The broader Watershed Plan seeks to reduce reliance on imported water and over-drafted, confined groundwater aquifers by reclaiming poor quality, unconfined groundwater supplies and otherwise expanding water recycling projects.

The Watershed Plan, developed by a broad cross-section of stake holders, provides an umbrella under which this Urban Water Management Plan has been developed. A *Renewable Water Resources Management Plan* (RWRMP), prepared through consensus of the stakeholders involved in the Watershed planning effort, outlines an integrated set of facilities necessary to achieve the regional goals contained in that plan. The facilities envisioned in the plan reduce reliance on imported water supplies while improving water quality through the managed transport of salts out of the watershed. The goals and objectives of the RWRMP are reflected in the projections and projects incorporated in this UWMP.

Copies of the draft 2010 Urban Water Management Plan were circulated and coordinated with the following agencies with direct interests in District's plan:

- Calleguas Municipal Water District (wholesaler)
- City of Camarillo
- City of Thousand Oaks
- California State University - Channel Islands
- County of Ventura
- Pleasant Valley County Water District

Table 1 below summarizes the efforts Camrosa Water District has taken to include various agencies and citizens in its planning process.



**Table 1. Coordination With Appropriate Agencies**

| Coordinating Agencies                   | Participated in UWMP Development | Contacted for Assistance | Received Copy of Draft | Commented on the Draft | Sent a Notice of Intention to adopt | Attended public meetings |
|---|----------------------------------|--------------------------|------------------------|------------------------|-------------------------------------|--------------------------|
| <b>Wholesaler</b> (Calleguas MWD)       |                                  | X                        | X                      |                        | X                                   |                          |
| <b>Retailer</b> (City of Camarillo)     |                                  | X                        | X                      |                        | X                                   |                          |
| <b>Retailer</b> (City of Thousand Oaks) |                                  |                          | X                      |                        | X                                   |                          |
| <b>County of Ventura</b>                |                                  |                          | X                      |                        | X                                   |                          |
| <b>Cal State Univ. Channel Islands</b>  |                                  |                          | X                      |                        | X                                   |                          |
| <b>General Public</b>                   |                                  |                          | X                      |                        | X                                   |                          |

### C. Public Outreach, Plan Adoption, Submittal, and Implementation

In addition to coordination with other agencies, Camrosa Water District has solicited input from District customers and the public at large. Over the course of the last three years, the District has conducted a series of public meetings with groups of constituents to discuss priorities relative to water quality, reliability and cost, and to gauge public opinion on issues related to water conservation, recycling and reuse. Pertinent information from public interface has been used in the preparation of this Plan.

The District prepared this update to its Urban Water Management Plan over a period of several months during the same period that a new District *Integrated Facilities Master Plan* was being developed. Prior to the public hearing to review the plan and accept public input, notices were properly published in a local newspaper of general circulation within the District on May 7 and May 14, 2001, pursuant to Section 6066 of the Government Code. Information regarding the public hearing prior to adoption of this UWMP was also advertized in monthly bills and on the District's Web site.

The updated UWMP was adopted by the Board of Directors on **June 8, 2011** and submitted to the California Department of Water Resources, the California State Library, the County of Ventura and cities within the District's service area within 30 days of adoption as required by the Urban Water Management Planning Act. This UWMP will be available for public review at Camrosa Water District headquarters during normal business hours. A copy of the resolution adopting the Urban Water Management Plan is attached as Appendix A. This plan includes all information necessary to meet the requirements of California Water Code Division 6, Part 2.6 (Urban Water Management Planning).



## Section 2 System Description

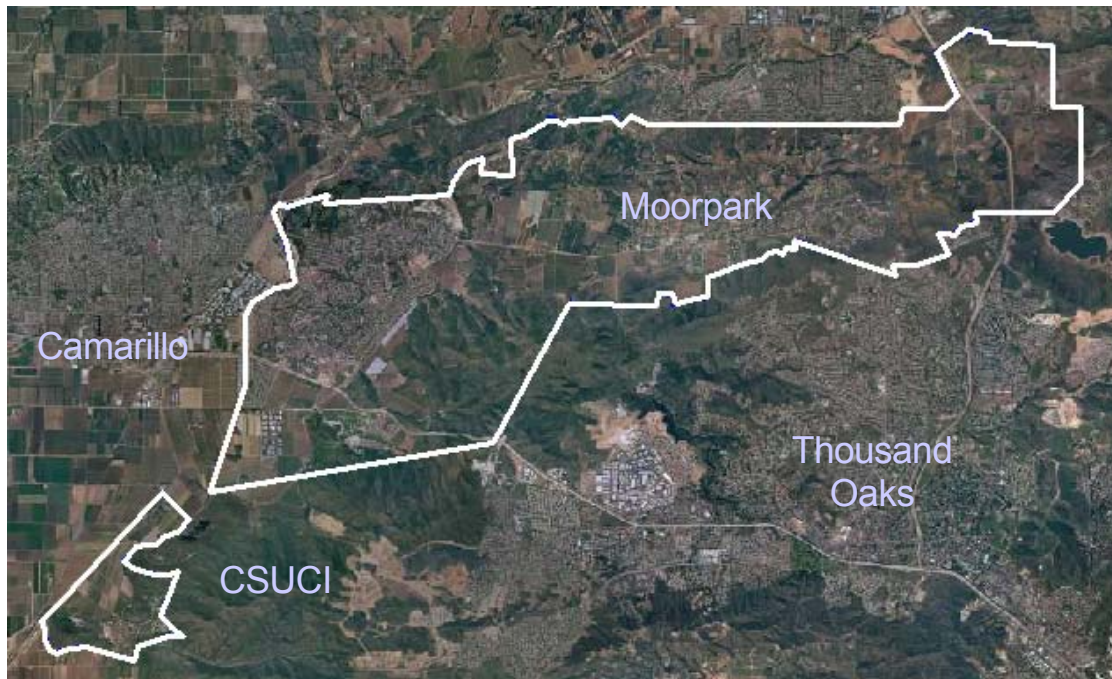
### LAW

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

10631. (a) Describe the service area of the supplier, including climate, current and projected population (population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier [and] shall be in five-year increments to 20 years or as far as data is available.

#### A. Location and Facilities

Camrosa Water District was formed in 1962 under the California Water Law section 30000 et. seq. as the Camarillo County Water District. Its original purpose was to supply potable water within its established boundaries. Subsequently, the District expanded its boundaries and also its operations to include wastewater treatment services. The District's name has changed twice, first, to the Camrosa County Water District in 1965 and then to its present name in 1987. Camrosa is among the largest water districts in Ventura County in number of connections and population served.

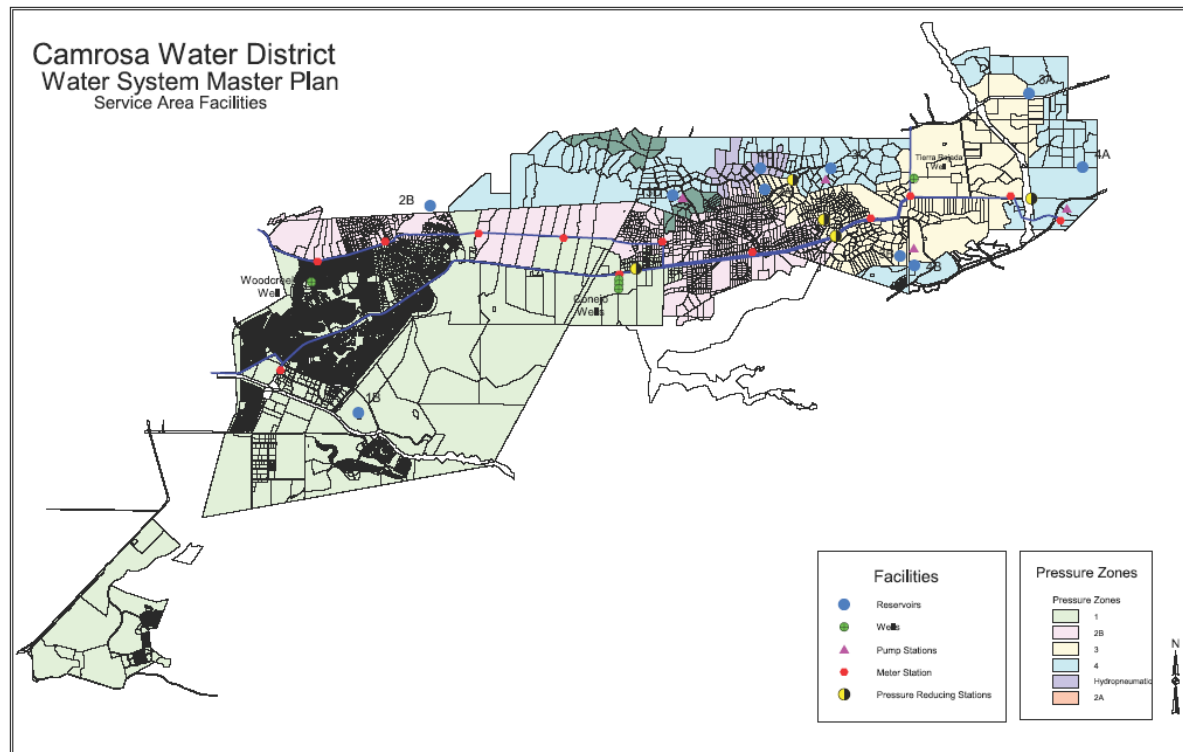


**Figure 1 – Camrosa Water District Service Area Boundaries**

Camrosa Water District is located, as shown in Figure 1, in the southern portion of Ventura County, surrounded by the Cities of Camarillo, Simi Valley, Moorpark and Thousand Oaks. In terms of geographic features, the District is bounded by Calleguas Creek on the west, the Las Posas Hills on the north, the Simi Hills on the east and the Conejo Hills on the south. Some of these features help define the Terra Rejada, Santa Rosa and Pleasant Valleys. The District serves three classes of water and provides wastewater services to various portions of this area.

## B. Potable Water Service

Potable Water Service that meets all primary drinking water standards set forth by the California Department of Public Health is provided throughout the District, as illustrated by the highlighted areas in Figure 2 (different shades represent various pressure zones). Potable water is primarily a blend of State Water Project water imported through Calleguas Municipal Water District and well water obtained from the Tierra Rejada, Santa Rosa and Fox Canyon groundwater basins. The backbone of the potable water system was constructed in the late 1960's and service has been extended into newly developed areas, primarily by developers, in the ensuing years.



**Figure 2 – District Potable Water Service with Facilities**

Service was extended by agreement to California State University Channel Islands (CSUCI), located in the discontinuous area southwest of the main District boundaries, in 1981. Water is provided to CSUCI through a master meter located at the CSUCI property line. CSUCI owns and operates its own storage tanks and distribution system for the campus property.

In 2000, Camrosa acquired the distribution system of the Santa Rosa Mutual Water Company and began providing both potable and non-potable service to approximately 240 large parcels in Santa Rosa Valley. With the exception of the CSUCI system, Camrosa owns and operates all potable water distribution facilities within the District boundaries.

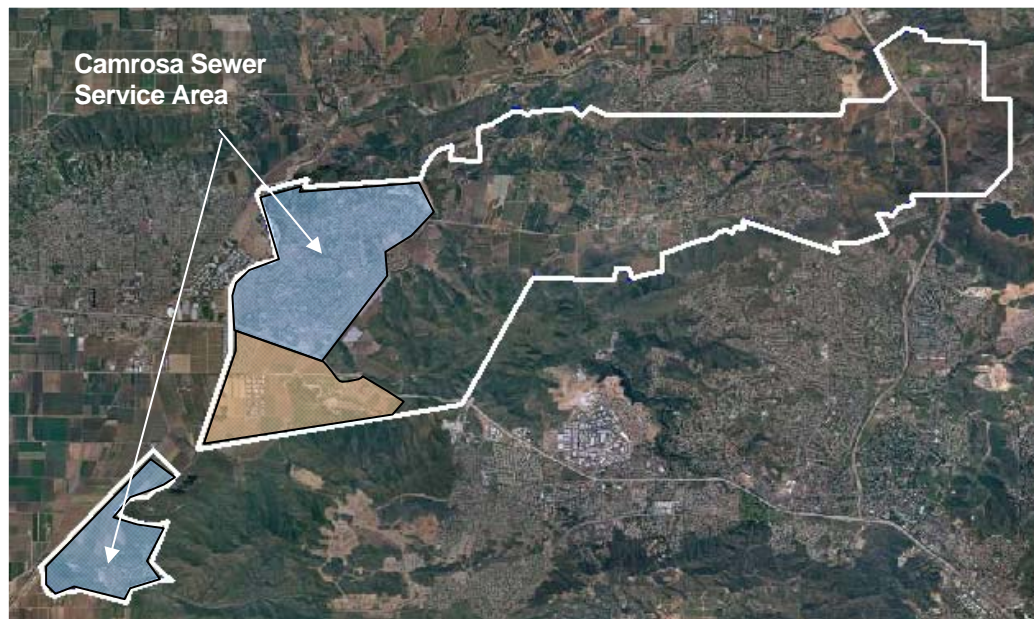
Camrosa's potable water distribution system consists of 150 miles of buried pipeline, with diameters up to 24 inches. The District also operates 10 reservoirs with a total storage capacity of 14.3 million gallons (or about 44 AF). The elevation differences within the District's service area necessitate the use of five pumping stations to provide service to customers at higher elevations. Roughly 79% of the potable water served by the District is used for residential, commercial, and industrial uses while the remaining water is used to serve agricultural and other irrigation needs. The District serves approximately 7,990 residential, municipal and industrial water connections and about 90 potable agricultural connections.

## **C. Recycled Water Collection and Treatment Systems**

### **1. Wastewater Collection System**

Wastewater service areas for the Camrosa Water District and the City of Camarillo are the result of an agreement negotiated between the agencies more than 45 years ago. Both City and District boundaries have changed several times in the intervening years resulting in service areas which do not necessarily comport to political boundaries (see Figure 2). Portions of the Camrosa water service area fall within the City boundaries. In the Mission Oaks area in particular, Camrosa is responsible for both potable water delivery and wastewater collection even though these areas are now within the City of Camarillo political boundaries. The City of Camarillo is responsible, through the Camarillo Sanitary District, for wastewater service in most of the unincorporated area of Camrosa south of US Highway 101, with the exception of annexed County and California State University property in the vicinity of the Camrosa Wastewater Reclamation Plant. The graphic below depicts the service areas in more detail.

The recycled water plan for Camrosa Water District is a cooperative effort among the City of Thousand Oaks, Calleguas Municipal Water District, Pleasant Valley County Water District, CSUCI, the City of Camarillo, and the Camarillo Sanitation District and is largely documented in the form of agreements between Camrosa and those agencies. These agreements for the use and distribution of recycled water produced by the various waste treatment plants provide the basis for the plan.



**Figure 2 – Camrosa and Camarillo Sanitation District Service Areas**

### **2. Camrosa Water Reclamation Facility (CWRF)**

Commissioned in 1997, Camrosa operates a state-of-the-art Water Reclamation Facility. With a capacity of 1.5 Million Gallons per Day (MGD), the facility reclaims wastewater collected from approximately 9,200 connections in the central portion of the District.

The CWRF uses an anaerobic process to breakdown and consume the organic material in the incoming wastewater. A portion of this mixture flows through an anoxic zone where microorganisms denitrify the water biologically by consuming additional organic matter and reducing nitrates to nitrogen gas.



The water moves through both secondary clarifiers and tertiary filters to remove the remaining suspended solids to produce a clean, clear effluent. Disinfection is achieved through the addition of sodium hypochlorite to the filtered water to destroy harmful bacteria. The chlorinated water achieves the required contact time in the chlorine contact basin to ensure maximum bacterial reduction before the final product is pumped off-site to storage ponds for reuse.

Once disinfected, the tertiary treated water is stored in holding ponds and distributed to both agricultural and public landscape users through the recycled water distribution system. The ponds have a storage capacity of nearly 300 AF. During extremely wet periods, when there is no irrigation demand, surplus recycled water is discharged to Calleguas Creek, in which it runs to the ocean. Since 2000, the only discharge of excess effluent to Calleguas Creek has been 90 AF during the heavy storms of January and February, 2005.

The plant is being expanded to 2.25 MGD to accommodate District growth, primarily at CSUCI and is expected to be re-rated by summer, 2012. The CWRP produced approximately 1,522 AF of recycled water in calendar year 2010 and it is expected that plant recycled water production will continue to increase to approximately 2,200 AF/Y by 2035, necessitating the current expansion.

### **3. Conejo Creek Diversion Project**

Backed by a voter-approved bond issue in 1966, the City of Thousand Oaks purchased the Hill Canyon Treatment Plant from the Conejo Valley Sanitary Company and began providing wastewater treatment within the city boundaries. Today, this facility provides treatment for wastewater from about 90 percent of the City. The Hill Canyon Treatment Plant currently treats an average of 11.0 Million gallons of wastewater per day. The water is treated to a tertiary level that complies with a wide variety of operational permits and is eventually discharged to Conejo Creek. Over time, the total volume of wastewater treated at the HCWWTP is expected to increase to 14.5 MGD and produce nearly 16,200 acre-feet of recycled water per year. This non-potable irrigation water serves a number of purposes, including support of a wetlands mitigation project, aquifer replenishment in the Santa Rosa Valley, serving riparian needs along Conejo Creek and serving irrigation needs in the Santa Rosa Valley and on the Oxnard Plain.

In 1997, the State Water Resources Control Board (SWRCB) issued Water Rights Decision 1638 granting a water right of up to 21.7 cubic feet per second (CFS) to the City of Thousand Oaks. Under a series of agreements between the City of Thousand Oaks, Calleguas Municipal Water District, the Pleasant Valley County Water District, and Camrosa; the Camrosa Water District purchases the water granted under the water right. The agreement regarding Camrosa's primary access to HCWWTP recycled water in Conejo Creek was executed in 1994. This 25-year contract will expire in 2019. Camrosa is currently in the process of renegotiating the agreement to retain rights to Conejo Creek water. Camrosa also built and operates the surface water diversion and associated pipelines, the "Conejo Creek Diversion Project," to distribute the water. Under agreements reached with private diverters, all of the private diverters have connected to the Camrosa potable water or non-potable irrigation water distribution systems since the Conejo Creek Diversion Project became operational.

Camrosa purchases all of the effluent discharged into Conejo Creek from HCWWTP and diverts it 6.8 miles downstream at the Conejo Creek Diversion Structure, which is located 300' south of US Highway 101. Water is diverted from the Conejo Creek using a specially designed diversion/pump plant structure located on the western embankment of the creek. The US Department of Fish and Game requires that 6 cubic feet per second (CFS) be returned to the creek from the diversion facility; besides that, the District captures all water that flows down Conejo Creek. During storms and prolonged wet periods, irrigation demand approaches zero and it temporarily goes offline. Approximately 3 miles of 30" pipe carry the diverted water from the structure to Camrosa's storage ponds, located near CSUCI. A pumping station at the ponds moves water as needed into District service areas in Camarillo and the Santa Rosa Valley through its Non-Potable Surface Water Distribution System, which is completely separate from the non-potable Recycled Water Distribution System described above in Section 2.C.2.

Surplus non-potable surface water is delivered west to Pleasant Valley County Water District (PVCWD), where it is used as an irrigation source in lieu of groundwater that would otherwise be pumped from the Fox Canyon Basin. Further details concerning the use of non-potable surface water diversions from Conejo Creek are discussed directly below and in Section 4.E.2.

#### **4. Camarillo Sanitary District (CamSan) Wastewater Treatment Plant**

The Camarillo Sanitary District (CamSan) was formed in 1955 to provide wastewater treatment for most of what is now the City of Camarillo. The treatment plant occupies a 20-acre site on Howard Road next to Conejo Creek within the Camrosa Water District boundaries. Although the District does not currently receive water from CamSan, plans are in place to begin using tertiary-treated plant output in the District's non-potable recycled water distribution system by 2015 (see Section 4.E.3).

After primary treatment the wastewater undergoes secondary treatment using an "activated sludge treatment" process and is then sent into secondary clarifiers and ultimately disinfected in a contact basin using chlorine. Dechlorination is accomplished with sulfur dioxide before the effluent is delivered for agricultural purposes or discharged to Conejo Creek.

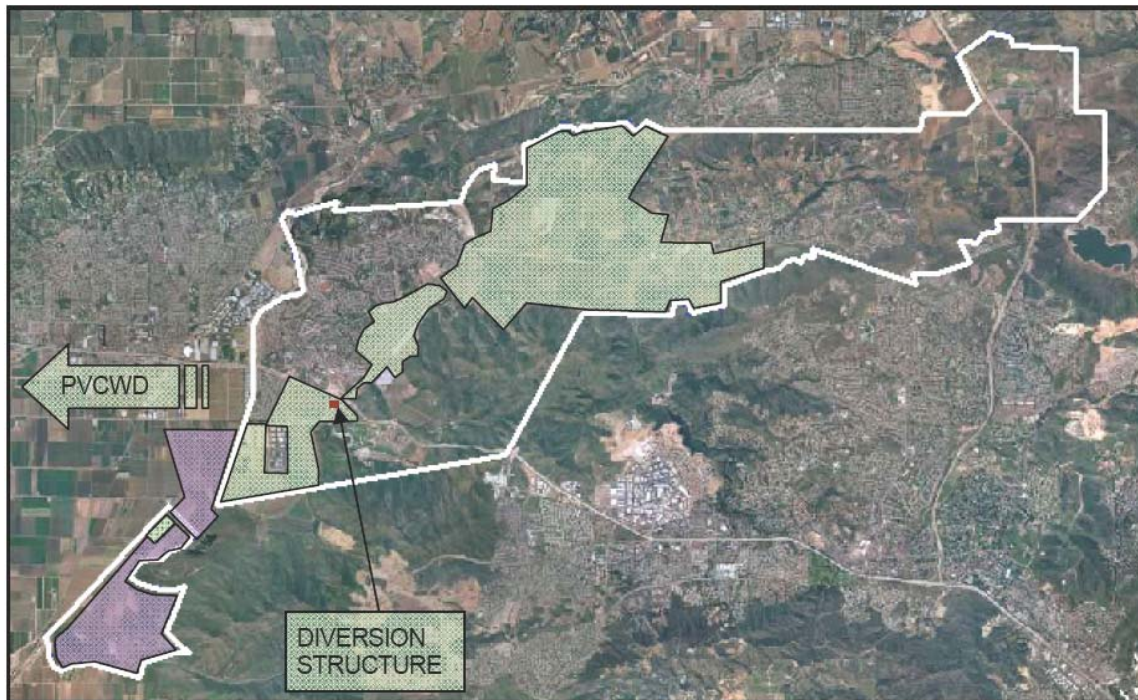
Over the years the treatment plant has undergone several modifications to increase its capacity and to incorporate new technologies. Construction is underway to install tertiary filtration to the treatment train to produce recycled water that meets all DHS Title-22 requirements. The plant currently treats about 4.0 million gallons of wastewater each day, with a maximum capacity of 6.75 million gallons.

#### **D. Non-Potable Irrigation Water Service**

Camrosa Water District has two distinct non-potable water distribution systems; one that distributes tertiary-treated, Title-22 product from Camrosa's Water Reclamation Facility and the other that delivers a blend of non-potable surface water diverted from Conejo Creek and local, non-potable groundwater. Due to significant differences in health code regulations and legal definitions between diverted surface water and Title-22 recycled water, the two systems are completely separate within the District; each has its own distribution system and storage facilities. The current service area for Title-22 recycled water from the CWRP is highlighted in purple in Figure 3 below. The service area encompasses all of the parcels adjacent to and surrounding CSUCI, including the campus itself and neighboring farmland, with the exception of the County-owned parcels in the northwest of the Campus Area.

The Conejo Creek Diversion Project was inaugurated in 2000. Non-Potable Surface Water, originally discharged from the City of Thousand Oaks' Hill Canyon Wastewater Treatment Plant 6.8 miles upstream from the diversion structure, is diverted from Conejo Creek and used for both landscape and agricultural irrigation in the areas highlighted in green in Figure 3. In some areas of the District, this water is augmented with groundwater to meet peak irrigation demands.

Areas that receive non-potable surface water include the County-owned property near CSUCI, farmland surrounding the Adolfo Industrial Park, farmland near the diversion structure and adjacent to the non-potable irrigation system pipeline into Santa Rosa Valley and the large agricultural area that lies within the Santa Rosa Valley Greenbelt area. Approximately 240 residential parcels, formerly a part of the Santa Rosa Mutual Water Company, receive both potable water as well as non-potable surface water to meet outdoor irrigation needs. In 2008, Leisure Village, a 415-acre retirement community, transferred over 550 AF/Y of landscape irrigation to the non-potable distribution system. Non-Potable irrigation water surplus to the District's needs is delivered to PVCWD and stored in the PVCWD reservoir located near the Camarillo airport.



**Figure 3 – Non-Potable Irrigation Water Service Areas**

Although the two classes of non-potable water Camrosa serves are distinct and are delivered via separate distribution systems, they are both comprised primarily of tertiary-treated product from wastewater treatment plants and are therefore extremely reliable sources of non-potable irrigation water supply, even in the driest of years. For the purposes of this UWMP, in order to streamline calculations and condense explanation, the volume of non-potable water from the CWRP and the volume diverted from Conejo Creek are considered together and referred to collectively as “Non-Potable Irrigation Water” since both are used to meet irrigation demand within the District.

## **E. Topography and Climate**

The majority of the developed area within the District is in three connected valleys. The Tierra Rejada Valley connects to the Santa Rosa Valley through a narrow gap in the hills cut by the Arroyo Santa Rosa. From there, the floor of the Santa Rosa Valley slopes gently down in a westerly direction to meet the broader Pleasant Valley near the western edge of the District. The Conejo Hills, which run along the Southern edge of the District, reach elevations of over 1,000 feet (about 700-800 feet higher than the adjoining valley floor). Owing to their steep nature, much of this hilly area remains undeveloped. To the north, the Las Posas Hills are not quite as steep as the Conejo Hills and have been subject to substantially more development.

The climate within Camrosa’s service area is typical of Ventura County, Mediterranean in nature with generally mild temperatures and moderate rainfall. Based on precipitation stations maintained by Ventura County Flood Control District, Camrosa’s service area receives an average of almost 15 inches of rainfall per year, varying from less than six inches in the driest years to more than 30 inches in the wettest years. On average, more than 90 percent of the annual rainfall occurs during the six-month period extending from November through April.

The average temperature fluctuates between an average low of about 44 degrees (January) and an average high of about 75 degrees (August). Table 2, based on the period of record May 1998 through January 2010 for the Oxnard California WFSO 045672 station, lists the monthly average climatic data for the Camrosa Water District Service area.

The Evapotranspiration (ET<sub>o</sub>) averages for the service area are also contained in Table 2. These monthly averages are based on historical data obtained from Station 156 – Camarillo, CA for the period October 2001 through January 2010.

| <b>Table 2. Monthly Average Climatic Data</b> |  |  |  |   |
|---|--|--|--|---|
| Month   | Standard<br>Monthly Average<br>ET <sub>o</sub><br>(inches per month) | Monthly<br>Average<br>Maximum<br>Temperature<br>(°F) | Monthly<br>Average<br>Minimum<br>Temperature<br>(°F) | Monthly<br>Average Total<br>Precipitation<br>(inches) |
| January                                       | 1.83   | 66.8   | 45.6   | 2.91  |
| February                                      | 2.20   | 65.9   | 45.7   | 3.76  |
| March   | 3.42   | 66.9   | 47.0   | 1.75  |
| April   | 4.49   | 67.6   | 48.1   | 1.24  |
| May   | 5.25   | 70.0   | 52.8   | 0.44  |
| June  | 5.67   | 72.5   | 56.4   | 0.03  |
| July  | 5.86   | 75.8   | 59.5   | 0   |
| August  | 5.61   | 76.0   | 59.2   | 0   |
| September                                     | 4.49   | 74.8   | 57.7   | 0.10  |
| October                                       | 3.42   | 73.7   | 53.7   | 0.63  |
| November                                      | 2.36   | 70.3   | 48.8   | 1.19  |
| December                                      | 1.83   | 66.4   | 44.8   | 1.60  |
| <b>Total</b>                                  | <b>46.43</b>   | <b>N/A</b>   | <b>N/A</b>   | <b>13.64</b>  |

## F. Demographic Factors

With the exception of the last several years of economic downturn, the number of connections and volume of water served within the District has grown slowly, but steadily since the formation of the District. Ventura County was predominantly an agricultural area when the District was formed and has struggled to maintain a viable agricultural economy in spite of pressures to develop agricultural acreage into more intensive urban uses. Primarily in response to these pressures, the voters of Ventura County and the City of Camarillo approved separate Save Open Space and Agricultural Resources (SOAR) initiatives designed to protect and preserve the community's agricultural and greenbelt resources. In accordance with the initiatives and the resulting adopted ordinances, any lands designated as Agricultural, Open Space or rural within the Ventura County's General Plan or within the City of Camarillo General Plan Map will remain so designated at least until December 31, 2020, unless the re-designation is approved by a vote of the people. Within Camrosa Water District, SOAR will have its greatest impact by preserving the Santa Rosa Valley and Tierra Rejada Greenbelt areas. This plan assumes that existing zoning designations and land uses will continue through the year 2020 and, even if the SOAR initiative lapses the existing land use and zoning designations will not change appreciably in the 15 years between 2020 and 2035.



## **1. Historical Development with the City of Camarillo**

### ***a. Development within the City of Camarillo***

In 1981, voters in the City of Camarillo approved a ballot measure limiting residential development to 400 units per year. In November 2005, the City Council took action to extend the growth ordinance for a period of 10 years, to expire in 2015. Since there still appears to be broad support for this annual growth restriction within the Camarillo city limits and there is no reason to believe the ordinance will not be extended again when it nears expiration.

During the planning horizon of this Urban Water Management Plan, the City of Camarillo is expected to reach full build-out. While projected growth rate within the City limits is bound by the City's growth ordinance, as a practical matter few parcels remain to be developed in that portion of the City that lies within the District service area and it is assumed that those parcels will be fully developed within the timeline of this UWMP.

### ***b. Population Growth within the City of Camarillo***

Overall, the growth rate for the City of Camarillo is projected by the Ventura Council of Governments (VCOG) to average approximately 1.2% per year through 2025 (VCOG projections for 2030 and 2035 – Not Available). On the whole, the City of Camarillo is growing at a slightly faster pace than the County of Ventura in its entirety. The pace is expected to slow considerably as the City approaches build-out. Growth in the unincorporated area of Ventura County is projected to be slightly less at 1.0 % per year while growth in the County as a whole, including all incorporated cities and the unincorporated areas, is projected to be slightly less than 0.9% per year.

### ***c. Population Growth on the CSUCI Campus***

The population estimates available from 2010 census tracts provide reasonable population growth-rate estimates for five of the six planning divisions in the District. The sixth planning division, the Campus Area, must be considered separately. CSUCI's projected development of additional housing units in the eastern Campus Area and ultimate build-out of dormitories to 2,000 beds will add approximately 3,300 new residents to the District over the planning period. Nearly two-thirds of that growth is expected to occur in the next 10 years. The daily commuter population will add additional demand for both water and wastewater services.

CSUCI has prepared a comprehensive master plan that estimates the future water and wastewater requirements for the Campus properties. The university has a reserved capacity of 700,000 GPD in the CWRP and has reserved sufficient capacity to provide for future wastewater flows. Further, CSUCI has estimated future water needs and has determined that it can live within existing water service agreements if recycled water is provided to meet irrigation demand. A separate recycled water system is complete and is now serving the campus. CSUCI existing and future potable and recycled water demands have been defined and are considered within this UWMP.

### ***d. Population Growth within the District***

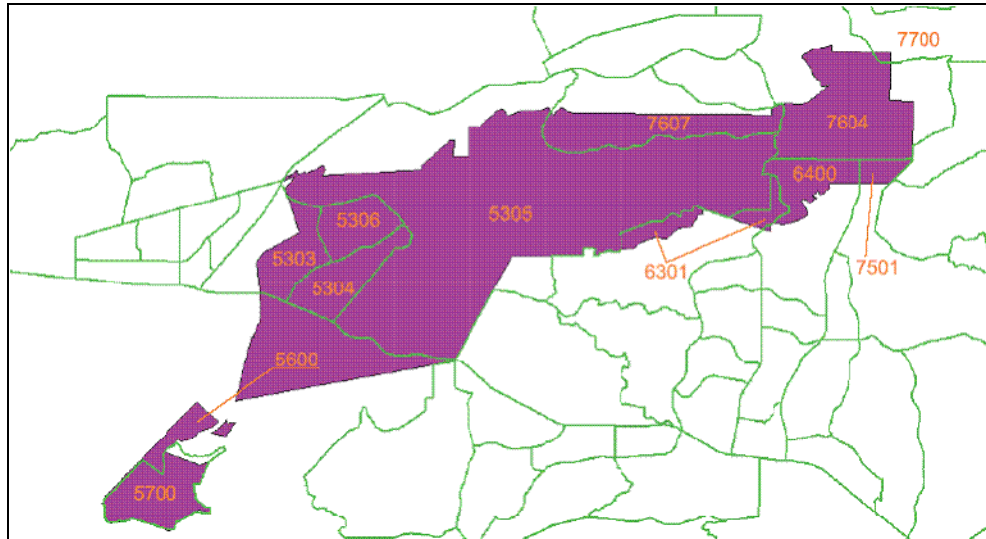
The principal residential demand served by Camrosa comes from the eastern portion of the City of Camarillo. The remainder of the population is in Santa Rosa Valley, which does not expect any appreciable growth. It is therefore reasonable to assume that the rate of growth within Camrosa Water District urban areas outside of the CSUCI campus will mirror projected urban growth rates for the City of Camarillo.

Although the official projected growth rate for the unincorporated area of the County as a whole is 1.0%, non-urban growth within the District is not expected to be that high. The large greenbelt areas within Santa Rosa Valley and Tierra Rejada Valley will likely result in rural growth rates substantially less than that projected for the unincorporated areas of the County as a whole. It is expected that the growth rate for unincorporated areas within the District as a whole will likely average 0.75% or less as the Countywide SOAR initiative dampens growth in the Santa Rosa Valley for the foreseeable future. An even lower growth rate of 0.25% for the greenbelt areas will be assumed for the 25-year planning horizon.



## 2. District Population Projections

Census tract information as shown in Figure 4 below was obtained from the County of Ventura to establish the actual District population as of the 2010 Census. That data provided population counts and average parcel density for those parcels included in each tract.



**Figure 4 – 2010 Census Tract Number and District Boundaries**

*Source: Ventura County Resource Management Agency*

Because the census tracts do not exactly coincide with District boundaries, the census tract boundaries were overlaid with the service boundaries and, using a count of parcels contained both within the service area and the Census tract multiplied by the average parcel densities for that census tract, to estimate District population in 2010. To project future population, growth projections for the City of Camarillo and the unincorporated County were applied to 2010. Table 3 contains the resulting population determinations.

| <b>Table 3. Population - Current and Projected</b> |  |             |             |             |             |             |
|--|--|-------------|-------------|-------------|-------------|-------------|
|  | <b>2010</b>  | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
| Service Area Population                            | 26,931   | 30,701      | 32,850      | 34,164      | 35,531      | 36,242      |
| Source   | Ventura County RMA derived from California DOF and US Census Bureau Data |             |             |             |             |             |

## Section 3 System Demands

### LAW

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

10631 (e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors including, but not necessarily limited to, all of the following uses:

(A) Single-family residential; (B) Multifamily; (C) Commercial; (D) Industrial; (E) Institutional and governmental; (F) Landscape; (G) Sales to other agencies; (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof; and (I) Agricultural.

(2) The water use projections shall be in the same 5-year increments described in subdivision (a).

#### A. Water Demand Analysis

Camrosa Water District serves potable water to a number of different water uses including residential, commercial & industrial, agricultural, institutional and governmental. Within these different water uses there are various categories ranging from high-density residential condominiums and apartments to low-density, large estate-style homes, master-metered communities, business parks, agricultural growers and other uses. It is a complex matter to determine the distribution of potable water demand over the District's service area.

Projected demands were calculated using current and estimated demands received from large users and in-house estimates based on current use and zoning designations. Future demand was estimated based on expected growth within the District, changes in zoning designations, and the transfer of potable water use to non-potable irrigation water distribution system. All related projects are discussed at length in the District's *Facilities Master Plan* and are summarized in Section 4.F.

##### 1. 2010 Total Demand

The total 2010 demand by customers served by the Camrosa Water District was approximately 15,025 AF, as shown in Table 4, below. This includes all of the demand for water within the District, including potable water (imported and groundwater wells), diverted non-potable surface water and non-potable recycled water. These totals do not include surplus deliveries outside the boundaries of the District.

2010 was an extremely wet and cool year and demand was far below the preceding several years. In order to establish a more accurate approximation of current usage on which to base future demand projections, a normalized current year was established by averaging usage of the previous five years, as explained below in Section 3.B, Water Demand Projections.

**Table 4. Total Demand: Accounts and Volume – 2005 & 2010**

|   | 2005          |               | 2010          |               |
|---|---------------|---------------|---------------|---------------|
| Potable Water Sectors                     | # of accounts | Volume (AF/Y) | # of accounts | Volume (AF/Y) |
| Residential (all) <sup>1</sup>            | 7,027         | 6,478         | 9,918         | 5,397         |
| Commercial/Industrial                     | 178           | 1,036         | 207           | 579           |
| Institutional and governmental            | 16            | 781           | 116           | 422           |
| Landscape                                 | 581           | 624           | 581           | 653           |
| Agriculture                               | 249           | 1,299         | 89            | 506           |
| Other (Misc)                              | 130           | 94            | 113           | 12            |
| Other (Potable Line Loss)                 | N/A           | 843           | N/A           | 691           |
| <b>Total Potable</b>                      | <b>8,181</b>  | <b>11,155</b> | <b>11,024</b> | <b>8,261</b>  |
| <b>Non-Potable Irrigation Water</b>       |               |               |               |               |
| Municipal & Industrial (all) <sup>1</sup> | 248           | 566           | 244           | 1,253         |
| Agriculture                               | 37            | 3,443         | 126           | 5,512         |
| Other (Non-Potable Line Loss)             | N/A           | N/A           | N/A           | N/A           |
| <b>Total Non-Potable Irrigation</b>       | <b>285</b>    | <b>4,009</b>  | <b>370</b>    | <b>6,765</b>  |
| <b>Total District Demand</b>              | <b>8,466</b>  | <b>15,164</b> | <b>11,394</b> | <b>15,025</b> |

1) Breakdown between Single- and Multiple-Family Dwellings not available

**a. District M&I Demand**

Potable Municipal and Industrial (M&I) demands include demand by all non-agricultural sectors including residential, public, landscape, and commercial and industrial users. The Potable M&I service area is generally concentrated in the western end of the District, within the City of Camarillo and includes the Mission Oaks, and Camarillo Springs Divisions. Commercial usage is primarily community shopping centers with grocery stores, small restaurants, retail stores, and offices. Industrial uses are light industry, again with low water demands. The Camarillo Springs area also includes the Camarillo Springs Golf Course. There is also a golf course and driving range within the Tierra Rejada Division at the eastern end of the District that are part of this category.

As the District expands its non-potable water distribution systems, additional neighborhoods will be able to take advantage of non-potable surface water for landscape irrigation. The area formerly served by Santa Rosa Mutual Water Company is already a dual-plumbed neighborhood and the common landscape areas of the master metered community of Leisure Village in Eastern Camarillo were converted to non-potable surface water in 2009.

**b. District Agricultural Demand**

Amongst agricultural users in the District, there is a demand for potable water and both classes of non-potable irrigation water: Title-22 WRF product and non-potable surface water diverted from Conejo Creek. The three primary areas within the District where agricultural demand exists is in the Eastern end of the District in Tierra Rejada Valley, in the Central Greenbelt area just east of the Camarillo City limits and extending into Santa Rosa Valley, and in the vicinity of the CSUCI campus in the Southwestern portion of the District.

Agricultural lands in the vicinity of the University and Camrosa's Water reclamation facility are the primary users of recycled water produced by the CWRF. Recycled water is the primary source of supply for these customers and is used almost exclusively due to its low cost, abundance and superior quality to local groundwater in the perched aquifer.

Non-potable irrigation water is supplied to agricultural users in the Central Greenbelt area. This surface water is augmented with untreated groundwater to meet demands in the eastern-most extremes of the service area. For some avocado growers in the northern-most portion of the Greenbelt, this water is blended with imported water to reduce the chloride level in the finished water.

Finally, SWP imported water is used to supply agricultural users in the upper pressure zones in Santa Rosa Valley and the Tierra Rejada Valley as well as some agricultural customers in the lower pressure zones who demand the higher quality water and are willing to pay the much higher cost for water. For some of these customers, non-potable surface water is not available at the present time. It is expected that some of the demand for potable agricultural water will decline as the non-potable distribution system is expanded further and the cost of imported water continues to rise.

As can be seen from Table 4, the number of agricultural accounts decreased significantly between 2005 and 2010. This is due primarily to the reassessment of agricultural parcels within the Camrosa Water District in 2008. When Metropolitan Water District ended the Interim Agricultural Water Management Program, which had offered discounted water rates to agricultural customers, Camrosa followed suit and established one cost scale for potable water. Even though classification as agricultural producers no longer affected customers' water rates, Camrosa thought it pertinent at the time to assess how many of its accounts were primarily or exclusively agriculture operations. Approximately 150 customers that had previously been identified as agricultural users were found to not meet the minimum acreage/crop requirements and were reclassified as residences. The reclassification also affected the volume of water considered agricultural irrigation, as shown in the decrease between 2007 and 2008 in Table 5 below, though the exceedingly low agricultural demand in 2010 (506 AF) was the result of abnormally cool and wet weather all year.

#### ***c. Sale of Surplus Water***

In 2005, 5,503 AF of surplus water was delivered to Pleasant Valley County Water District and out-of-bounds irrigators. The availability of surplus water, however, has declined considerably as demand for non-potable water increases within the District's service area. In 2010, only 4,880 AF of surplus water was available. However, as additional non-potable water becomes available through increases in wastewater plant output, and the quality improves making supplies more marketable, surplus water available for sale is expected to fluctuate between 5,000 and 6,500 AF/Y after 2015 (see Table 9 below).

### **B. Water Demand Projections**

Future demands in the District for 2010 through 2035 were projected based on an evaluation of existing zoning, planning data and land use maps for the various areas within the District, population projections, and discussions with City, County, and various special district staff. Anticipated land use changes from current zoning were incorporated into the analysis. It must be noted that the demand projections depend on the long-term accuracy of the available planning documents. If the Cities, County, or special districts, significantly revise their land use maps or general plans, the population projections and corresponding demands may also change significantly.

It was assumed land designated on current land-use maps for commercial or residential use would be "fully developed" over the next 20 years and would reflect the population projections contained in Table 3 above. It was assumed that parcels currently in agricultural but zoned for M&I use would be developed over the next 20 years.

It was assumed that parcels currently zoned agricultural will remain in agriculture during the planning period, primarily due to the impacts of SOAR and the apparent desire of the community to maintain the greenbelt and agricultural aspect of the undeveloped land within the District. There is little undeveloped land suitable for agricultural use within the District boundaries and there is little likelihood there will be significant increases to the base irrigation demands. Much of this agricultural and otherwise undeveloped land will be transferred from the potable distribution to the non-potable irrigation water distribution system.

The current water use for 2010 is presented in Table 4 above, along with 2005 historical usage. Because 2010 was an abnormally wet and cool year, agriculture and landscape irrigation demand was extremely low. In order to assume a realistic baseline demand off of which to more accurately project growth, the previous five years' demands were averaged. These five years were assumed to be an adequate cross-section of demand extremes, as they included the driest year on record (2006), two other dry years (2007 and 2008), an average year (2009) and a very wet year (2010). Table 5 displays the previous five years and their average, which is used as the projection baseline.

| <b>Table 5. Baseline Demand for Projection: Average Demand 2006-2010 (AF/Y)</b> |               |               |               |               |               |                          |
|---|---------------|---------------|---------------|---------------|---------------|--------------------------|
| <b>Potable Water Sectors</b>  | <b>2006</b>   | <b>2007</b>   | <b>2008</b>   | <b>2009</b>   | <b>2010</b>   | <b>AVG</b>               |
| Residential   | 7,393         | 7,011         | 7,285         | 6,312         | 5,397         | <b>6,680</b>             |
| Commercial/Industrial   | 970           | 1,023         | 880           | 728           | 579           | <b>836</b>               |
| Institutional and governmental  | 527           | 567           | 642           | 476           | 422           | <b>527</b>               |
| Landscape   | 854           | 748           | 713           | 747           | 653           | <b>743</b>               |
| Agriculture   | 2,231         | 2,359         | 1,585         | 1,061         | 506           | <b>1,548</b>             |
| Other (Misc)  | 109           | 17            | 36            | 11            | 12            | <b>37</b>                |
| Other (Potable Line Loss)   | N/A           | N/A           | N/A           | N/A           | 691           | <b>519<sup>1</sup></b>   |
| <b>Total Potable</b>  | <b>12,084</b> | <b>11,725</b> | <b>11,141</b> | <b>9,335</b>  | <b>8,261</b>  | <b>10,890</b>            |
| <b>Non-Potable Irrigation Water</b>   |               |               |               |               |               |                          |
| Municipal & Industrial <sup>1</sup>   | 167           | 839           | 1,166         | 1,436         | 1,253         | <b>1,285<sup>2</sup></b> |
| Agriculture   | 6,169         | 5,050         | 5,301         | 5,820         | 5,512         | <b>5,570</b>             |
| Other (NP Line Loss)  | N/A           | N/A           | N/A           | N/A           | N/A           | <b>343<sup>1</sup></b>   |
| <b>Total Non-Potable Irrigation Water</b>                                       | <b>6,336</b>  | <b>5,889</b>  | <b>6,467</b>  | <b>7,256</b>  | <b>6,764</b>  | <b>7,198</b>             |
| <b>Total District Demand</b>  | <b>18,420</b> | <b>17,614</b> | <b>17,608</b> | <b>16,591</b> | <b>15,025</b> | <b>18,088</b>            |

1) Line Loss is estimated 5% of total potable and non-potable, respectively, prior to its inclusion.

2) Because of real transfer of over 500 AF/Y of NP demand to Leisure Village in 2008, Non-Potable Irrigation Water M&I use was averaged from only three previous years, 08-10

Transfers of potable irrigation to the non-potable distribution system make up the bulk of the changes in Tables 4, 6 and 7; while non-potable demand is projected to increase 3,217 AF/Y over the planning horizon, total District demand is only projected to increase 2,495 AF/Y. New development within the District will add an estimated 932 AF/Y of (primarily indoor) potable demand, but the transfer of roughly 2,658 AF/Y from potable to non-potable use resulting from the expansion of the non-potable distribution system (see Section 4.F – Future Water Projects) combine for a net 1,065 AF/Y reduction in Districtwide use of potable water.

Based upon the future growth within the District, the total water demand within the District by 2015, shown in Table 6, is expected to increase to 18,453 AF/Y including imported water, recycled water, groundwater and Conejo Creek surface water. This is an increase of about 22% over total 2005 demand for water within the service area and reflects increased use of non-potable water as the non-potable distribution system is expanded. M&I demands in 2015, which include all residential, public, commercial and industrial and landscape uses of both potable and non-potable water, are projected to be approximately 11,506 AF. 2020 and 2025 projections are also included in Table 6.

Table 6 includes projection estimates for 2030 and 2035. By 2035, the M&I Demand is expected to increase to 15,057 AF/Y. This represents an increase of approximately 23% over current demand and reflects the general population growth expected in the District.

During the same period, agricultural demands placed upon the District will not change very much, and are projected to be 4,664 AF/Y by 2035. Some reduction in agricultural demand is expected as parcels are developed. However, the significant increase in projected non-potable demand is primarily a result of making non-potable water available to Tierra Rejada Valley to displace pumping of high quality groundwater from the Tierra Rejada Basin.

In addition to demand forecasted for the various classes of water delivered within the District, some line-loss is experienced. Line loss is the difference between the total meter readings for water produced or imported, and the aggregated meter readings of water delivered and billed and is usually the result of minor pipe leakage, meter inaccuracy, or pipe ruptures. Historically, line loss has averaged approximately 4.8% of production, but it approached 7.5% in 2005. The District has initiated action to evaluate the existing delivery systems to ensure line losses are minimized, the success of which is evidenced by the decrease to just under 6% line loss in 2010. Line loss for future years has been projected at about 5% and is included in the tables below.

Camrosa plans to meet the Water Conservation Act of 2009's (SBX7-7) requirements for achieving interim 2015 and final 2020 urban water use reduction targets by continuing to shift commercial and residential irrigation and agricultural water demands from potable to non-potable irrigation water supplies. Using this strategy, the District has already demonstrated a reduction in imported, potable State Water Project water and local groundwater supplies between 2005 and 2010, as shown in Table 4 above. With further expansion of the non-potable system and augmentation of non-potable irrigation water supplies, additional reductions in potable water use are anticipated over the planning period.

**Table 6. Projected Demand: Accounts and Volume – 2015-2025**

|  | 2015          |               | 2020          |               | 2025          |               |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| Potable Water Sectors                      | # of accounts | Volume (AF/Y) | # of accounts | Volume (AF/Y) | # of accounts | Volume (AF/Y) |
| Residential (all) <sup>1</sup>             | 10,186        | 6,517         | 11,486        | 6,176         | 12,686        | 6,069         |
| Commercial/Industrial                      | 202           | 883           | 202           | 1,093         | 202           | 1,190         |
| Institutional and governmental             | 116           | 570           | 128           | 634           | 136           | 685           |
| Landscape                                  | 581           | 909           | 479           | 750           | 323           | 506           |
| Agriculture                                | 89            | 1,376         | 71            | 1,187         | 53            | 1,030         |
| Other (Misc)                               | 113           | 41            | 113           | 100           | 113           | 100           |
| Other (line Loss)                          | N/A           | 515           | N/A           | 497           | N/A           | 479           |
| <b>Total Potable</b>                       | <b>11,287</b> | <b>10,811</b> | <b>12,479</b> | <b>10,437</b> | <b>13,513</b> | <b>10,059</b> |
| <b>Non-Potable Irrigation Water</b>        |               |               |               |               |               |               |
| Municipal & Industrial (all <sup>1</sup> ) | 394           | 1,708         | 3,330         | 4,291         | 4,826         | 5,102         |
| Agriculture                                | 126           | 5,570         | 121           | 4,090         | 121           | 4,090         |
| Other (Non-Potable Line Loss)              | N/A           | 364           | N/A           | 419           | N/A           | 460           |
| <b>Total Non-Potable Irrigation Water</b>  | <b>520</b>    | <b>7,642</b>  | <b>3,451</b>  | <b>8,800</b>  | <b>4,947</b>  | <b>9,652</b>  |
| <b>Total District Demand</b>               | <b>11,807</b> | <b>18,453</b> | <b>15,930</b> | <b>19,237</b> | <b>18,460</b> | <b>19,711</b> |

1) Breakdown between Single- and Multiple-Family Dwellings not available



**Table 7. Projected Demand: Accounts and Volume – 2030-2035**

|  | 2030          |               | 2035          |               |
|--|---------------|---------------|---------------|---------------|
| Potable Water Sectors                      | # of accounts | Volume (AF/Y) | # of accounts | Volume (AF/Y) |
| Residential (all) <sup>1</sup>             | 12,686        | 6,069         | 12,686        | 6,069         |
| Commercial/Industrial                      | 202           | 1,190         | 202           | 1,190         |
| Institutional and governmental             | 136           | 695           | 136           | 695           |
| Landscape                                  | 150           | 235           | 150           | 235           |
| Agriculture                                | 35            | 574           | 35            | 574           |
| Other (Misc)                               | 113           | 100           | 113           | 100           |
| Other (Potable Line Loss)                  | N/A           | 443           | N/A           | 443           |
| <b>Total Potable</b>                       | <b>13,322</b> | <b>9,306</b>  | <b>13,322</b> | <b>9,306</b>  |
| <b>Non-Potable Irrigation Water</b>        |               |               |               |               |
| Municipal & Industrial (all <sup>1</sup> ) | 5,169         | 5,829         | 5,169         | 5,829         |
| Agriculture                                | 121           | 4,090         | 121           | 4,090         |
| Other (Non-Potable Line Loss)              | N/A           | 496           | N/A           | 496           |
| <b>Total Non-Potable Irrigation Water</b>  | <b>5,290</b>  | <b>10,415</b> | <b>5,290</b>  | <b>10,415</b> |
| <b>Total District Demand</b>               | <b>18,612</b> | <b>19,721</b> | <b>18,612</b> | <b>19,721</b> |

1) Breakdown between Single- and Multiple-Family Dwellings not available

**a. Projected Low Income Housing Demands**

Camrosa Water District boundaries overlap with four jurisdictions: the City of Camarillo, unincorporated areas of Ventura County, the City of Thousand Oaks, and CSUCI. Of the approximately 31 square miles encompassed by the Camrosa Water District's boundaries, about 7 square miles are within the City of Camarillo, 22 square miles lie in unincorporated Ventura County, and 1.5 square miles are attached to the City of Thousand Oaks. Each of these municipalities has a general plan with housing element classifications.

Ventura County, the City of Camarillo, and the City of Thousand Oaks all use the Department of Housing and Urban Development income criteria for the Oxnard–Thousand Oaks–Ventura Metropolitan Statistical Area (MSA) in determining eligibility for affordable housing programs. Senate Bill 1087 requires that water use projections of a UWMP include the projected water use for single-family and multi-family residential housing for lower income households as identified in the housing element of any city, county, or city and county in the service area of the supplier. None of the housing elements of the *General Plans* of Ventura County, the City of Camarillo and the City of Thousand Oaks identifies the number or specific location of low income households in the City. Nor do the housing elements in any of these plans project the number or location of low-income households in the future. For this reason, it is not possible to project water use for lower income households separate from overall residential demand. The District will not deny or condition approval of water services applied for by a proposed development that includes low-income affordable housing units, unless one of the following occurs:

- the District specifically finds that it does not have sufficient water supply
- the District is subject to a compliance order issued by the State Department of Health Services that prohibits new water connections

- the applicant has failed to agree to reasonable terms and conditions relating to the provision of services.

Within the Camrosa Water District boundaries, there are currently no single or multi-family residential tracts designated as low-income housing. There are three large-plan developments scheduled for completion by 2025, at which point the District will near full build-out. Of the residential tracts that are planned for development, none are designated as low-income housing. Projections are shown in Table 8 below.

| <b>Table 8. Low-Income Projected Water Demands</b> |             |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|
| <b>Low Income Water Demands</b>                    | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
| Single-family residential                          | 0           | 0           | 0           | 0           | 0           |
| Multi-family residential                           | 0           | 0           | 0           | 0           | 0           |
| <b>Total</b>                                       | <b>0</b>    | <b>0</b>    | <b>0</b>    | <b>0</b>    | <b>0</b>    |
| Units of Measure (AF/Y)                            |             |             |             |             |             |

## 2. Additional Water Uses

Surplus non-potable water is delivered to users outside the District Boundaries and is accounted for in Table 9 below. These sales include surplus recycled water from the Camrosa CWRP sold to nearby agricultural users and non-potable irrigation water sold to the Pleasant Valley County Water District. Sales of surplus water are considered interruptible to satisfy demands within the District's service area. Table 9 reflects the excess non-potable supplies available for delivery to satisfy demand outside the district after all District non-potable demands have been met. In past years, all surplus non-potable irrigation water has been sold. For the foreseeable future it is expected that all surplus non-potable water will continue to be sold to agricultural use outside the District.

Camrosa anticipates no demand related to saline intrusion barriers or groundwater recharge.

| <b>Table 9. Deliveries to Other Agencies (AF/Y)</b> |             |             |             |             |             |             |             |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Name of Agency</b>                               | <b>2005</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
| Pleasant Valley CWD                                 | 5,503       | 4,880       | 6,433       | 5,829       | 5,541       | 5,138       | 6,280       |
| Units of Measure (AF/Y)                             |             |             |             |             |             |             |             |



Table 10 sums the total water uses expected within the District over the next 25 years.

| <b>Table 10. Total Water Use (AF/Y)</b>                      |               |               |               |               |               |               |               |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Water Use</b>   | <b>2005</b>   | <b>2010</b>   | <b>2015</b>   | <b>2020</b>   | <b>2025</b>   | <b>2030</b>   | <b>2035</b>   |
| Total Water Deliveries within District (from Tables 4, 6, 7) | 15,164        | 15,025        | 18,453        | 19,237        | 19,711        | 19,721        | 19,721        |
| Sales to Other Water Agencies (from Table 9)                 | 5,503         | 4,484         | 6,433         | 5,829         | 5,541         | 5,138         | 6,280         |
| Additional Water Use   | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| <b>Total</b>   | <b>20,667</b> | <b>19,509</b> | <b>24,886</b> | <b>25,066</b> | <b>25,252</b> | <b>24,859</b> | <b>26,001</b> |
| Units of Measure (AF/Y)                                      |               |               |               |               |               |               |               |

Table 11 below details the demand projections provided to Calleguas Municipal Water District, Camrosa's sole wholesale potable water supplier. Both the existing and projected water volumes reflect a decrease in reliance on State Water Project water over the planning period. This is mainly due to the District's current and continued efforts to expand the non-potable distribution system within the District.

| <b>Table 11. Retail Agency Demand Projections Provided to Wholesale Suppliers</b> |                          |             |             |             |             |             |             |
|---|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Wholesaler</b>   | <b>Contracted Volume</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
| Calleguas Municipal Water District  | 7,900                    | 5,639       | 5,448       | 5,017       | 4,878       | 4,878       | 4,878       |
| Units of Measure (AF/Y)   |                          |             |             |             |             |             |             |

## C. Baselines and Targets

### LAW

10608, 12 (b) "Base daily per capita water use" means any of the following:

(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period, ending no earlier than December 31, 2004, and no later than December 31, 2010.

(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

10608.22 Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

The Water Conservation Act (SBX7-7) of 2009 directs urban retail water suppliers to set both interim 2015 and final 2020 urban water use targets with goals of achieving a 10 percent per capita reduction by 2015 and 20 percent by 2020. Additionally the Act requires urban water suppliers to define a 10 to 15 year base (or baseline) period for water use that will be used to develop their target levels of per capita water use.

Water suppliers must also calculate water use for a 5 year baseline period, and use that value to determine a minimum required reduction in water use by 2020. The longer baseline period applies to a water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water.

There are four overall steps a water supplier must complete to meet the 2010 UWMP requirements identified in the Water Conservation Bill of 2009:

#### 1. Step 1: Determine Base Daily Per Capita Water Use

Base daily per capita water use, measured in GPCD (gallons per capita per day), is established for an initial period of time, which is referred to as the 10-to-15-year base period. Three technical methodologies have been developed to support a water supplier in determining its base daily per capita water use:

- Methodology 1 – Gross Water Use
- Methodology 2 – Service Area Population
- Methodology 3 – Base Daily Per Capita Water Use

The percentage of non-potable water used to satisfy irrigation demands to total water deliveries for 2008 is used to determine the number of continuous years an urban water supplier may use in calculating average GPCD. This provides some flexibility as well as acknowledges the advances of water suppliers that have already begun using recycled water to reduce potable demands. Table 12 below summarizes the 2008 total and non-potable irrigation water deliveries for the District and defines the continuous 10-to-15 and 5 year base periods that will be used.

| <b>Table 12. Base Period Ranges</b> |  |              |              |
|-------------------------------------|--|--------------|--------------|
| <b>Base</b>                         | <b>Parameter</b>   | <b>Value</b> | <b>Units</b> |
| 10 to 15 year base period           | 2008 total water deliveries  | 18,387       | AF           |
|                                     | 2008 total volume of delivered non-potable irrigation water        | 5,341        | AF           |
|                                     | 2008 non-potable irrigation water as a percent of total deliveries | 29           | %            |
|                                     | Number of years in base period range                               | 10           | years        |
|                                     | Year beginning base period range                                   | 1998         |              |
|                                     | Year ending base period range                                      | 2007         |              |
| 5 year base period                  | Number of years in base period                                     | 5            | years        |
|                                     | Year Beginning base period range                                   | 2003         |              |
|                                     | Year ending base period range                                      | 2007         |              |
| Units of Measure: <b>AF/Y</b>       |  |              |              |

If an urban retail water supplier's recycled water deliveries for 2008 meet or exceed 10 percent of total deliveries, then the supplier may choose a longer continuous base period of up to 15 years ending no earlier than December 31, 2004 and no later than December 31, 2010. Non-potable irrigation water represents the combined deliveries of two separate non-potable systems. Camrosa has relied upon this resource to offset the use of imported SWP water for the past nine years, will continue to do so and has general plans to further expand the non-potable irrigation water distribution system in order to offset potable SWP water imports. As demonstrated in Table 12, non-potable irrigation water deliveries for the District in 2008 comprised 29 percent of total deliveries, exceeding the DWR requirement for a 10-15 year base period. Camrosa has chosen to use a ten-year period – 1998-2007 – as its base period to determine current GPCD and future GPCD targets.

#### **Gross Water Use**

For purposes of determining GPCD in this Plan, the District determined that Gross Water Use constitutes all potable water that entered the potable distribution system, including agricultural deliveries. In order to align with the requirements of other agencies requiring similar information, data was analyzed and calculated on the basis of a fiscal year (July 1 – June 31).

#### **Service Area Population**

Section 2.F.2 describes the methodology used and the process followed to arrive at District population for both past and future years. The Service Area boundaries are represented in that section in Figure 2.

#### **Base Daily Per Capita Water Use**

The District has determined the optimal baseline period is 10 fiscal years ranging from 1998 through 2007. Table 13 below provides the annual Gallons per Capita per Day (GPCD) calculation as a ratio of Daily Gross Water Use and Service Area Population for each baseline year from 1998 through 2007 with an average baseline GPCD of 454 gallons/person/day. Table 14 below details the 5 year base GPCD use for the years of 2003 through 2007 with an average 5 year baseline of 435 gallons/person/day.

**Table 13. Base Daily Per Capita Water Use: 10-15 Year Range**

| Base Period Year   |               | Distribution System Population <sup>1</sup> | Daily System Gross Water Use (MGD) | Annual Daily per Capita Water Use (GPCD) |
|--|---------------|---|------------------------------------|--|
| Sequence Year  | Calendar Year |   |                                    |  |
| 1  | 1998          | 22,197                                      | 8.472                              | 382                                      |
| 2  | 1999          | 22,659                                      | 10.513                             | 464                                      |
| 3  | 2000          | 22,820                                      | 11.417                             | 500                                      |
| 4  | 2001          | 22,820                                      | 11.194                             | 491                                      |
| 5  | 2002          | 23,219                                      | 12.151                             | 523                                      |
| 6  | 2003          | 23,475                                      | 11.607                             | 494                                      |
| 7  | 2004          | 23,932                                      | 11.17                              | 467                                      |
| 8  | 2005          | 25,987                                      | 10.049                             | 387                                      |
| 9  | 2006          | 26,682                                      | 10.195                             | 382                                      |
| 10   | 2007          | 26,809                                      | 11.921                             | 445                                      |
| Base Daily Per Capita Water Use  |               |   |                                    | <b>454</b>                               |
| <sup>1</sup> Source: Ventura County RMA derived from California DOF and US Census Bureau Data overlaid with District parcels as described in Section 2 |               |   |                                    |  |

## 2. Step 2: Determine Urban Water Use Target

Retail water suppliers can choose from four compliance methods as follows:

- Method 1 – Eighty percent of the water supplier's baseline per capita use
- Method 2 – Per capita daily water use estimated using the sum of performance standards applied to indoor residential use; landscaped area water use; and commercial, industrial, and institutional uses
- Method 3 – Ninety-five percent of the applicable state hydrologic region target as stated in the State's April 30, 2009, draft 20x2020 Water Conservation Plan
- Method 4: Requires reduction of Base Daily Per Capita Water Use a specific amount for different water sectors:
  - Indoor residential water use to be reduced by 15 GPCD or an amount determined by use of DWR's "BMP Calculator".
  - A 20 percent savings on all unmetered uses.
  - A 10 percent savings on baseline CII use.
  - A 21.6 percent savings on current landscape and water loss uses.

The District has chosen to use method 1 (80% of average base daily per capita water use) in determining its preliminary urban water use target. From Table 13 above the Base Daily Per Capita Water Use is 454 GPCD. Therefore the District's preliminary Urban Water Use Target is 363 GPCD, as follows:

$$80\% \times 454 \text{ GPCD} = \underline{363 \text{ GPCD}}$$

### 3. Step 3: Confirm Urban Water Use Target

Step 3 confirms the water supplier's urban water use target determined in Step 2. It compares the urban water use target determined in Step 2 to a 5-year base daily per capita water use value to confirm that the urban water use target has met a minimum reduction established by statute.

In determining the 5 year base period, an urban water supplier may choose a continuous base period ending no earlier than December 31, 2007, and no later than December 31, 2010. Table 14 below details the 5 year base GPCD use for the years of 2003 through 2007 with 5-year average baseline of 435 gallons/person/day.

| <b>Table 14. Base Daily Per Capita Water Use: 5-Year Range</b> |                      |                                       |   |   |
|--|----------------------|---------------------------------------|---|---|
| <b>Base Period Year</b>  |                      | <b>Distribution System Population</b> | <b>Daily System Gross Water Use (MGD)</b> | <b>Annual Daily per Capita Water Use (GPCD)</b> |
| <b>Sequence Year</b>   | <b>Calendar Year</b> |                                       |   |   |
| 1  | 2003                 | 23,475                                | 11.607                                    | 494   |
| 2  | 2004                 | 23,932                                | 11.170                                    | 467   |
| 3  | 2005                 | 25,987                                | 10.049                                    | 387   |
| 4  | 2006                 | 26,682                                | 10.195                                    | 382   |
| 5  | 2007                 | 26,809                                | 11.921                                    | 445   |
| <b>Base Daily Per Capita Water Use</b>                         |                      |                                       |   | <b>435</b>                                      |

If an urban retail water supplier's base daily per capita water use calculated using the 5-year base period is 100 GPCD or less, then the supplier is exempt from the 5 percent minimum required reduction. However, the District exceeds this amount and must therefore calculate 95 percent of the base daily per capita water use in Table 13 to confirm its urban water use target:

$$.95 \times 435 = \underline{413 \text{ GPCD}}$$

From Step 2 above, the urban water use target is less than 95% of the base daily per capita water use. Therefore the District's Urban Water Use Target is confirmed to be:

$$\underline{363 \text{ GPCD}}$$

### 4. Step 4: Determine Interim Urban Water Use Target

As previously mentioned, SBX7-7 also directs urban retail water suppliers to set an interim urban water use target with a goal of achieving a 15 percent per capita reduction by 2015. The interim urban water use target is one-half the sum of the urban water use target (from step 2) and the base daily per capita water use (from step 3). The District's interim target is 399 GPCD, as follows:

$$(363 + 435) \div 2 = \underline{399 \text{ GPCD}}$$

## **5. Conclusion**

Based on the methodology described above, the District has already met its Urban Water Use Target, as GPCD in 2010 was 309. Because 2010 was such an abnormally wet year, GPCD for 2009 was calculated, and found to be 363. The District will continue to monitor GPCD in the years ahead, and will report the District's GPCD to DWR, as required by California Water Code 10608.40, when the standardized forms for doing so become available. While the District has already achieved a decreasing trend in GPCD usage for the last several years due in large part to shifting irrigation demand off of the potable distribution system and through concerted conservation efforts, some of that has also been a result of response to significant regional drought and the general economic downturn. Between continued education and conservation efforts, and the current general strategy of offsetting potable water use with non-potable water through expanding the non-potable distribution system, the District expects GPCD to not only maintain this current level of GPCD, but in addition continue to decline farther below the urban water use target in the future. Section 4F, Future Water Projects, describe several options for expanding the non-potable distribution system to meet the SBX7-7, 2015 and 2020 reduction goals.

## Section 4 System Supplies

### LAW

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

10631 (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

(1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management; an indication of whether a groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management; a copy of the plan of authorization.

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater.

For those basins for which a court or the board has adjudicated the rights to pump groundwater: a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.

For basins that have not been adjudicated: information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

1631(i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

### Water Supply Sources

The current sources of water supply for the customers and properties within the Camrosa Water District service area are a complex mix of public and private sources including imported SWP water; public and private wells in three groundwater basins; surface water diverted from Conejo Creek and recycled water from two wastewater treatment facilities. A single parcel, particularly agricultural parcels, may have more than one source of supply.

Approximately 85% of the water supply for Camrosa Water District residents and property owners is provided by Camrosa Water District. The remaining supply is provided by property owners who own their own wells. During the drought period that peaked in 1990, Camrosa Water District found that agricultural customers moved from public to private water sources to obtain sufficient supplies and to avoid restrictions imposed by public water supply agencies. Since that experience, the District has adopted a more



comprehensive approach to water resource planning with many of the District's water analyses accounting for both public and private sources and demands.

Having multiple water sources gives the District considerable flexibility and improved reliability when compared to other nearby purveyors. Sources available to Camrosa Water District include imported SWP water from Metropolitan Water District of Southern California (imported through Calleguas Municipal Water District), local groundwater and non-potable irrigation water from various sources.

Camrosa has wells in the Tierra Rejada, Santa Rosa, Pleasant Valley and Perched groundwater basins. The Woodcreek well in the Pleasant Valley groundwater basin was completed in 1996. As it is an injection/extraction well, in addition to providing potable ground water can also be operated as a small, internal aquifer storage and recovery facility that can inject discounted imported water in years when the water is available.

Non-potable irrigation water supplies include surface water diverted by the Conejo Creek Project as well as recycled water from the Camrosa Water Reclamation Facility and, in the near future, recycled water from the Camarillo Sanitation District. These sources have been developed to augment the supply for expansion of the District's non-potable distribution system. The agreement regarding Camrosa's primary access to HCWWTP discharge in Conejo Creek was executed in 1994. This 25-year contract will expire in 2019. Camrosa is currently in the process of renegotiating the agreement to retain rights to HCWWTP recycled water product.

Table 15 presents the project water supplies available to the District over the next 25 years.

| <b>Table 15. Water Supplies - Current and Projected (AF/Y)</b> |               |               |               |               |               |               |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Water Supply Sources</b>                                    | <b>2010</b>   | <b>2015</b>   | <b>2020</b>   | <b>2025</b>   | <b>2030</b>   | <b>2035</b>   |
| <b>Purchased from wholesaler</b>                               |               |               |               |               |               |               |
| Calleguas MWD  | 5,639         | 7,900         | 7,900         | 7,900         | 7,900         | 7,900         |
| <b>Supplier produced groundwater</b>                           |               |               |               |               |               |               |
| Tierra Rejada Basin  | 428           | 928           | 928           | 928           | 928           | 928           |
| Santa Rosa Basin   | 2,312         | 3,530         | 3,530         | 3,530         | 3,530         | 4,650         |
| Pleasant Valley Basin  | 807           | 860           | 935           | 935           | 935           | 935           |
| Perched Zone   | 0             | 1,120         | 1,620         | 1,620         | 1,620         | 1,620         |
| Transfers In   | 0             | 0             | 0             | 0             | 0             | 0             |
| Exchanges In   | 0             | 0             | 0             | 0             | 0             | 0             |
| <b>Non-Potable Irrigation Water</b>                            |               |               |               |               |               |               |
| Conejo Creek/HCWWTP (Surface)                                  | 8,853         | 10,667        | 10,667        | 10,667        | 10,667        | 10,667        |
| Camrosa WRF (Recycled)   | 1,522         | 1,696         | 1,870         | 2,044         | 2,044         | 2,044         |
| CamSan WWTP (Recycled)   | 0             | 440           | 680           | 1,070         | 1,430         | 1,825         |
| Desalinated Water  |               |               |               |               |               |               |
| Other  | 0             | 0             | 0             | 0             | 0             | 0             |
| <b>Total</b>   | <b>19,561</b> | <b>27,141</b> | <b>28,130</b> | <b>28,694</b> | <b>29,054</b> | <b>30,569</b> |

#### **A. Imported Water**

Imported SWP water has been used to supplement the available local water supplies since 1965. Camrosa Water District has 12 active water turnouts that receive water by gravity feed from Calleguas Municipal Water District's Oxnard-Santa Rosa Feeder transmission lines. Blending imported water with local groundwater supplies has improved the water quality significantly and allows the use of groundwater that does not otherwise meet DPH water quality requirements. Camrosa blends imported water with



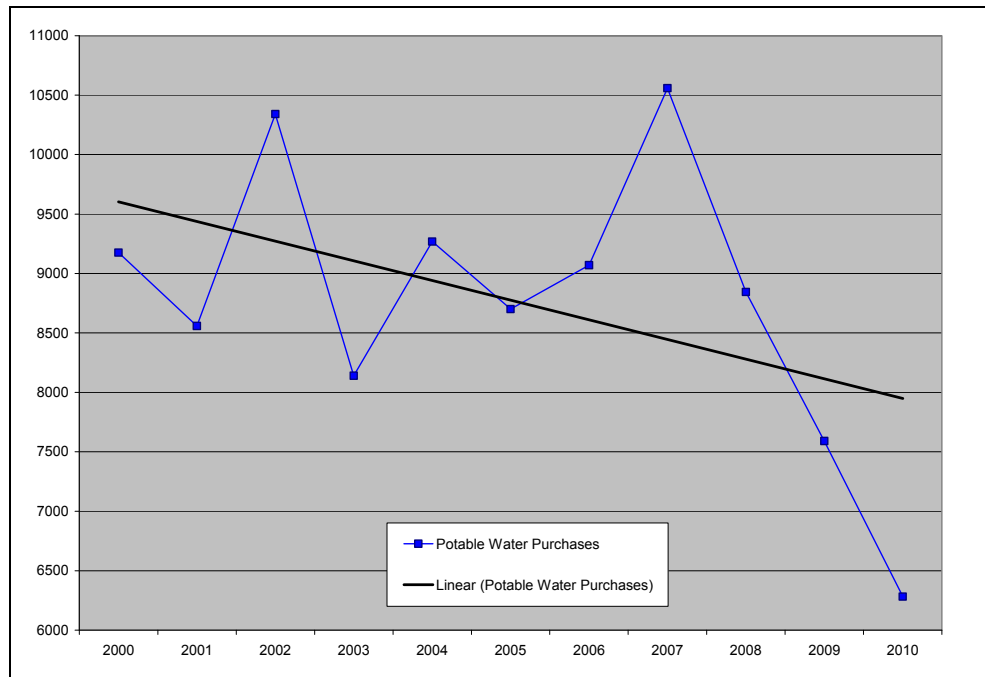
groundwater to control the level of nitrates and Total Dissolved Solids (TDS) that would otherwise limit the use of groundwater.

Camrosa Water District purchases of imported water peaked in 1990, a drought year when the District purchased 12,900 AF of imported water from Calleguas MWD. Faced with dramatically rising water costs, several large agricultural customers shifted from Camrosa to alternative private sources such as wells or private surface water diversions. Even though the drought continued into early 1992, imported water purchases in 1991 totaled only 7,100 AF. Since 1991, imported water purchases have stayed below 8,900 AF/Y with the exception of FY 1998-99, which was a particularly dry year locally.

During the 1986-1992 droughts, the State Water Project was not able to meet the total water demand of all its contract member agencies. Calleguas Municipal Water District, like all of Metropolitan Water District member wholesalers, instituted a rationing program to reduce purchases by 30 percent. Calleguas chose to charge significant surcharges for water purchases greater than 80 percent of the 1989-90 domestic levels and greater than 50 percent of the 1989-90 agricultural levels. Since the last major drought, Metropolitan Water District and its member wholesale purveyors such as Calleguas MWD have developed local water sources to insulate their customers from such large cutbacks during future droughts. Recent projects completed by Calleguas MWD include a treatment plant to treat water stored in Lake Bard, the Las Posas Aquifer Storage and Recovery well field, an interconnection with the Los Angeles Department of Water and Power, and Camrosa's Conejo Creek Diversion Project.

In the 20 years since the end of the drought, imported water purchases have averaged only 8,110 AF/Y. Development in the late 1990s and early 2000s increased potable consumption, bringing the average of the second half of that 20-year period to 9,025 AF/Y.

At the same time, recent conversions of potable irrigation demand to the non-potable distribution system, such as the 2008 conversion of Leisure Village, have reversed the growth trend. In 2010, Camrosa purchased a total of 6,282 AF of imported water. Figure 6 below summarizes potable water purchases for the period 2000 through 2010. Taking into account that the purchase spike in FY2007-08 was the result of one of the driest years on record, it is apparent there is a decidedly downward trend in the purchases of imported water. It is not expected that future imported water purchases will exceed 7,900 AF/Y in even the driest years.



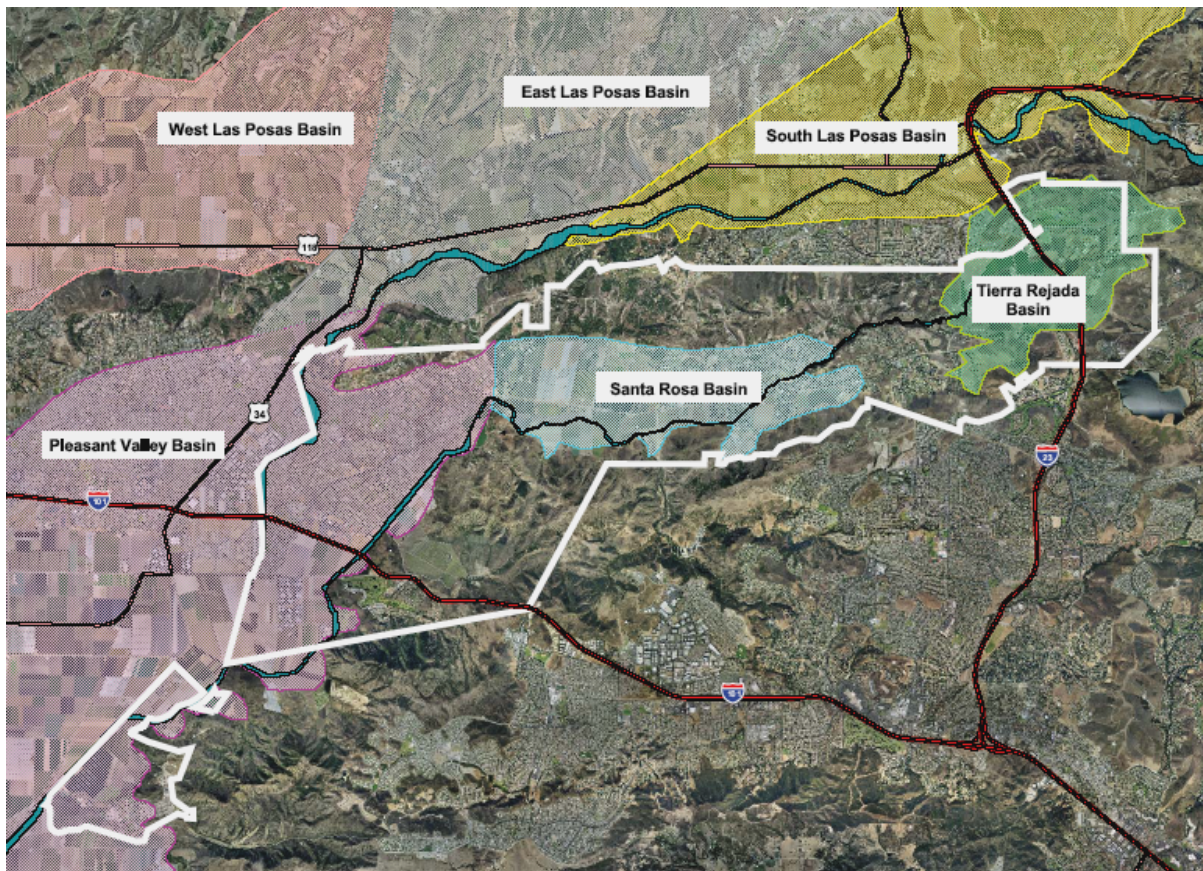
**Figure 6 – Imported Water Purchases 2000-2010**

Table 16 presents the existing and planned water supplies from Camrosa's wholesaler, Calleguas Municipal Water District, through 2035.

| Table 16. Wholesale Supplies: Existing and Planned Sources of Water (AF/Y) |                   |       |       |       |       |       |
|--|-------------------|-------|-------|-------|-------|-------|
| Wholesale Source   | Contracted Volume | 2015  | 2020  | 2025  | 2030  | 2035  |
| Calleguas Municipal Water District   | 7,900             | 7,900 | 7,900 | 7,900 | 7,900 | 7,900 |

## B. Groundwater

Camrosa Water District covers three major groundwater basins including Tierra Rejada Basin in the eastern portion of the District, the centrally located Santa Rosa Basin and the Pleasant Valley Basin in the western portions of the District. A fourth groundwater source is the shallow perched groundwater aquifer of poorer quality at the base of the Conejo and Santa Monica Mountains adjacent to the Pleasant Valley Basin. Figure 7 below represents graphically the groundwater basins available to the District. Detailed descriptions of these groundwater basins follow the figure, after which pumping history and projections are provided.



**Figure 7 – Groundwater Basins Surrounding the District**

### **1. Tierra Rejada Basin**

The Tierra Rejada Basin is about 1,900 acres in size. According to J.P. Schaaf's 1998 MA thesis, *Hydrogeology of the Tierra Rejada Groundwater Basin*, the Tierra Rejada Basin is approximately 1,900 acres in size and is recharged by a watershed area of approximately 4,500 acres.

Rainfall provides about 85% of basin water supply. The peripheral drainage area is underlain by non-water bearing rocks or sediments. Groundwater is stored primarily in sandstones and conglomerates with a matrix predominantly composed of volcanic rock of the Topanga Formation, and in fractured basalts and basalt breccias of the Conejo Volcanics. Bedrock formations of marine and non-marine origin present in the basin area include the Saugus Formation, Las Posas Sand, Monterey Shale, Topanga or Calabasas Formation, Conejo Volcanic, and Sespe Formation. Surficial deposits generally overlay the bedrock formations in the basin and include alluvium, and colluvium. The rock sequence in which fresh groundwater is present ranges in age from Oligocene (38 million years ago) to Recent.

Within the basin, the oldest Sespe Formation is water-bearing and known to generally underlie the Conejo Volcanics. The Sespe Formation outcrops on the northern and southern ridges. The compacted formation is mostly sandstone of various colors and contains metavolcanic and quartzitic rocks. This base formation is estimated to be a mile thick. The Conejo Volcanics underlie the entire basin south of the Semi fault and were formed during the Miocene (25 to 5 million years ago) period. Thickness estimates range from 1,000 to 2,000 feet, with deeper wells penetrating fractured upper layers providing ample rates of water extraction. The upper portion has been described as predominantly andesitic-basaltic flows and breccias; gray, maroon-gray and brown aphanitic porphyritic rocks, vaguely stratified, flows range from platy to massive,



coherent but much fractured; deposited as flows and breccias; contain some epiclastic volcanic sediments and minor reddish, scoriaceous pyroclastic horizons; probably emplaced sub aerially" (Dibblee, 1992).

Camrosa's well encountered the fractured volcanics at 290 foot depth where brown sandstones of the overlying Topanga formation ends and the gray Conejo Volcanics begins. The concrete well is sealed to 300 feet and produces water from from 300 to 620 feet below the surface.

The Topanga Formation overlying the Conejo Volcanics was deposited during the same era. Rocks of the formation were deposited during a period of marine exposure and consist mainly of medium to coarse grained sandstone and volcanic pebble conglomerate. Marine influence is also seen in Monterey shale outcrops in the hills south of the basin and along the Semi fault within the northwest area of the basin. Some Los Posas sand of marine origin lies on the south side of the fault. Also in contact with the fault is the Saugus formation which runs toward the northwest. Finally, the main basin is covered by younger sediments of Holocene era (10,000 years ago to the present), with recent alluvium accumulation along stream courses with a maximum thickness of 50 to 80 feet in the central basin.

The water table elevation decreases from approximately 600 feet mean sea level (MSL) in the eastern portion of the basin to 450 feet in the western portion of the basin. The saturated thickness increases from east to west across the basin. In the north central portion of the basin the aquifer reaches a maximum thickness of approximately 700 to 800 feet.

In December 2009, Norman N. Brown, PhD, P.G., conducted a second analysis of the Tierra Rejada Basin, *Groundwater Geology and Yield Analysis of the Tierra Rejada Basin*, on behalf of the District. Brown concluded:

- Groundwater levels observed over a long-term base period including two wet-dry climatic cycles shows that the average groundwater production was within the basin yield over the period 1944-1996
- Current and recent conditions indicate that existing production and possibly new production can be managed within basin yield. It is unknown if production from a proposed new District well would result in total basin production greater than or less than the historic average over the base period 1944-1996
- An increase in basin yield may be possible by active management of basin storage and pumping distribution
- Limited water quality data for the basin show increases in TDS, chloride and sulfate during the last 10 years; concentrations are within drinking water standards. Nitrates concentrations in 2008 exceeded the drinking water standards for four wells in the central portion of the basin

Inflows and outflows for the Tierra Rejada Basin currently total about 6,200 AF in an average rainfall year. Current pumping rates of 1,900 AF/Y for private agricultural wells and an additional 428 AF/Y for Camrosa Water District brings the current groundwater production to approximately 2,330 AF/Y for the Tierra Rejada Basin. The District currently operates one well in the Tierra Rejada basin and has shown a gradual reduction in pumping from 2006 to 2010. Construction of a second well in the basin is being considered as part of the District's Capital Improvement Plan. This second well would augment production in the basin by 500 AF/Y starting in 2015, which would bring total production estimates to 928 AF/Y through 2035. Construction of this second well within the basin has been postponed until the Tierra Rejada Groundwater Management Plan is completed, which is scheduled to be by the end of 2012.

## 2. Santa Rosa Basin

The Santa Rosa Groundwater Basin underlies about 3,800 acres (5.9 square miles) and is wholly contained within the District boundaries. It is a broad, elliptical, and flat-bottomed valley. The dominant structural element of the basis is the Santa Rosa Syncline, a downward trending fold lying east to west and extending from the east end of Tierra Rejada Valley westward into Pleasant Valley. Several major faults

occur in the Santa Rosa Basin, the largest of the geologic strata of 500 to 5,000 feet along the northern edge of the basin. The other major fault, the Bailey Fault, runs northeast to southwest near the western end of the basin, and separates the northwestern third of the basin from the rest of the basin. The Bailey Fault is geologic and political boundary within the basin.

Groundwater in the Santa Rosa Basin is extracted from sediments of Holocene, Pleistocene, Upper Pleistocene, and Miocene age. There are four major water-bearing zones within the basin; conglomerate beds within the Conejo Volcanics, conglomerate and sandstone within the Santa Margarita Formation, sand and gravel in the Saugus Formation, and alluvium. Structurally, the Conejo Volcanics underlie the basin and form the base on which the formations lie. The Santa Margarita Formation is peculiar to the area of the basin lying east of the Bailey Fault and lies atop the Conejo Volcanics. Over the Santa Margarita Formation lies a confining layer and over that, the alluvium. The area west of the Bailey Fault consists primarily of the Saugus Formation, a combination of Fox Canyon and San Pedro Formations. The Saugus Formation evident within the Santa Rosa Basin is the result of an outcropping of the larger Fox Canyon and San Pedro Formations west of the valley. This outcropping pinches off at the western end of the valley and then fans out into the valley, stopping at the Bailey Fault barrier. Due to the pinching off of the Saugus Formation, the Santa Rosa Groundwater Basin is considered to be a confined basin, separate from the larger western water bearing zones.

In 1975, the California Department of Water Resources (DWR) estimated the total groundwater storage capacity of the Santa Rosa Basin to be 94,000 AF. In 1994, a detailed groundwater basin model was developed in conjunction with the implementation of the Santa Rosa Groundwater Management Plan (see Appendix F). That model estimated the groundwater capacity to be 170,000 AF and recoverable storage to be about 69,000 AF. While the model estimated the basin safe yield at 4,700 AF/Y based on well records for 1989 to 1995, the SRGMP Council adopted a more conservative safe yield estimate of 4,200 AF/Y since it was not readily apparent at the time that inflows would be sustained at the rate assumed in the model. In his 1998 dissertation, however, Schaaf estimated the outflow from the Tierra Rejada Basin into the Santa Rosa Basin was 540 AF/Y, which is significantly higher than the 300 AF/Y assumed in the 1997 model.

Even by the most conservative estimates, Santa Rosa Basin has additional yield not currently utilized and the basin remains full even during the driest of years. The presence of nitrates above acceptable drinking water regulations require that Santa Rosa Basin groundwater be blended with imported water at an average ratio of between 1.5:1 and 2:1 (imported) to improve its quality before being injected into the potable distribution system. The Conejo Wellfield, where Santa Rosa Basin groundwater for potable use is pumped, is supplied through one imported water meter station (MS12), the upper capacity of which is 6,000 GPM. Recent combined pumping capacity of the four wells at the Conejo Wellfield is upwards of 3,300 GPM, meaning that the District is unable to utilize the full capacity of the Conejo Wellfield pumps. With the addition of the desalination facility, such as that discussed in Section 4.D.3, more water will be extracted from the basin. Additional yield may also be achieved by producing water for non-potable purposes in order to offset the significant irrigation demand now being met by potable water.

In the westernmost one-third, the Santa Rosa Basin overlies the Fox Canyon Aquifer. In this area, the Fox Canyon Groundwater Management Agency (FCGMA) has jurisdiction over the Santa Rosa Basin. The Fox Canyon GMA has established a program to bring basin pumping and recharge into balance within the over-drafted Fox Canyon Aquifer. Allocations have been established for each well based upon historical pumping records for 1985 to 1989. The allocations are reduced by 5% every five years until they reach 75 percent of historical extraction levels in the year 2010. An alternative to historical allocations has been adopted for agricultural pumpers. Agricultural wells are allowed to pump more than their historical allocations as long as the water pumped does not exceed the required irrigation water at an 80 percent efficiency rate for the crop under cultivation.

While Camrosa Water District does not have any wells within the lower Santa Rosa Basin, each of the private well owners report their pumped volumes to the GMA semiannually. Because high penalties are applied to extractions above allowed levels, pumpers normally stay within their allocations.

### 3. Pleasant Valley Basin

The Pleasant Valley basin is one of the seven major basins within FCGMA's jurisdiction and underlies the western portion of the Camrosa Water District. The Pleasant Valley Groundwater Basin underlies Pleasant Valley in southern Ventura County. The basin is bounded on the north by the Camarillo and Las Posas Hills and the south by the Santa Monica Mountains. The eastern boundary is formed by a constriction in Arroyo Santa Rosa. The basin is bounded on the west by the Oxnard subbasin of the Santa Clara River Groundwater Basin. Ground surface elevations range from about 15 feet in the west to about 240 feet above sea level in the east. The upper stratum of the Pleasant Valley Basin is composed of recent and Upper Pleistocene alluvial sands, gravels, silts and clays. The aquifers in this zone are generally unconfined and vary in thickness from a few feet to several hundred feet. The permeable lenses yield little water to wells owing to rapid thinning and predominance of fine-grained materials. The shallow aquifers in the Pleasant Valley Basin are equivalent, but not connected with, the Oxnard aquifer lying to the West. Underlying the Pleasant Valley area at depths from 400 to 1500 feet is a prominent zone of marine sands and gravels known as the Fox Canyon Aquifer. The Fox Canyon Aquifer is the lower most member of the Pleistocene San Pedro formation and forms the major producing zone of the Pleasant Valley Ground water Basin. The aquifer is confined and is 100 to 300 feet thick. Permeable deposits within the upper Santa Barbara Formation underlie the Sand Pedro Formation and contain fresh groundwater of only minor importance.

Camrosa operates one well (Woodcreek) within the basin. In 1975, DWR estimated the total groundwater storage capacity of the Pleasant Valley Basin to be 1,886,000 AF. Between 198,000 and 247,000 AF are recoverable. Although the perennial yield of this basin has not yet been determined, in 1999 it was estimated the applied water recharge of the basin to be approximately 11,400 AF while the average annual extractions was estimated at 18,500 AF.

The Fox Canyon GMA's allocation for the Woodcreek Well is based on an allowance for the residential development overlying the Fox Canyon Aquifer at a rate of 1 acre-foot per acre of land developed. As of 2010, Camrosa's allocations are approximately 807 AF/Y. Due to additional development within the District, this allocation is expected to increase to approximately 916 AF/Y by the end of 2014 and then remain relatively stable through 2035. Because this is an annual allocation, water not pumped cannot be carried over from one year to the next.

The District has also operated the Woodcreek Well as an aquifer storage and recovery facility whenever surplus state water is available during the winter months. It is not likely, however, that any significant additional quantities of water will be injected until such an enterprise becomes economical again.

### 4. Perched Aquifer

The Perched Aquifer at the base of the Conejo Hills is part of the regional Pleasant Valley Basin, with the specific distinction of being categorized only as an Upper Aquifer System, unlike the Pleasant Valley Basin, which includes a Lower Aquifer System (LAS) and an Upper Aquifer System (UAS) as well as shallow aquifers. The Perched Aquifer is locally semi-confined, with local groundwater levels characteristics that correspond with semi-perched conditions. The aquifer is lenticular and laterally discontinuous in the basin margins. It is designated as the uppermost water-bearing unit in hydraulic connection with surface and associated stream flow of Calleguas and Conejo creeks.

The Bailey Fault is an extension of the Simi-Santa Rosa fault zone which separates the Perched Aquifer from the Pleasant Valley Basin system. Basin sediments, which lie unconformable on bedrock, consist primarily of Tertiary Conejo volcanic rocks. The subsurface geometry of the bedrock surface is associated with truncation of the lower aquifer system along a zone roughly contiguous with the surface location of Calleguas Creek. Lithologic relationships between wells in this vicinity indicate that portions of the basin close to the mountain-front are geologically irregular and likely disrupted by faulting. None of the bedrock units, whether sedimentary or volcanic, are meaningful sources of groundwater production, except for local water supply from fractured volcanics in some mountain-front areas.

From the late 1930s through 1979, Camarillo State Hospital, with a population of nearly 1,000 patients, relied exclusively on the Perched Aquifer to satisfy the irrigation demands of its 634 acres and all potable demands of the hospital and onsite residences. When California State drinking water quality standards changed in 1979 and the aquifer's constituent levels exceeded the newest regulation, the State contracted with Camrosa Water District to supply water to the site. The supply has not been used regularly in the interim.

Water quality tests have shown that the quality of the water in the perched aquifer has not improved in the intervening years. Camrosa has determined, however, that the water could be put to beneficial use if desalinated. Accordingly, the District has entered into an agreement with the California State University – Channel Islands, the new owner of the former state hospital site, to lease a perched zone well owned by the University. Plans are underway to develop a project to rehabilitate the well and begin desalinating the brackish water contained in the perched zone as an alternate supply for the University Campus. It is expected that by 2013, a 1MGD desalination facility, the Round Mountain Water Treatment Plant (RMWTP), will be fully functional and delivering a new supply of potable water within the District.

Another existing well within District boundaries taps the Perched Aquifer. The Adhor Well, which is currently non-operational, is situated on a large agricultural parcel just south of US Highway 101. That parcel is slated to be developed into a mixed commercial/residential subdivision called the Conejo Creek Development Project. When development begins, prior to 2020, the Adhor Well will likely be dedicated to Camrosa Water District. Based off of historical pumping records, the District expects the Adhor Well to make an additional 500 AF/Y available. The well's condition will have to be examined, the water quality analyzed and the aquifer yield/well drawdown tested prior to determining whether this well would be added to the potable or non-potable distribution system.

Due to the fact that the Perched Aquifer has not been used as a source to supply significant volumes of water for over thirty years, it is difficult to know how the aquifer will respond to renewed extraction at the proposed volumes.

## 5. Groundwater Pumping History and Projections

Table 17 provides a summary of groundwater pumping for the 5-year period ending in 2010.

| <b>Table 17. Groundwater Pumped 2006-2010 (AF/Y)</b>  |                             |             |             |             |             |             |                  |
|---|-----------------------------|-------------|-------------|-------------|-------------|-------------|------------------|
| <b>Basin</b>  | <b>Metered or Unmetered</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> | <b>2009</b> | <b>2010</b> | <b>Avg.</b>      |
| Tierra Rejada   | M                           | 740         | 510         | 504         | 459         | 428         | 528              |
| Santa Rosa  | M                           | 3,161       | 3,162       | 4,105       | 3,159       | 2,312       | 3,180            |
| Fox Canyon  | M                           | 544         | 814         | 820         | 807         | 807         | N/A <sup>1</sup> |
| Perched Aquifer   | M                           | 0           | 0           | 0           | 0           | 0           | 0                |
| 1) The Fox Canyon Allocation is determined every year by the FCGMA. This real number will be used in supply projections, and as an average is not used in to calculate future Fox Canyon supplies, an average was not calculated. |                             |             |             |             |             |             |                  |

Years 2006-2010 contained both very dry and very wet years, as well as two average rainfall years, and little growth was experienced within the District during that time. Therefore, an average of the last five years (4,466 AF) was used as a base estimate of the volume of groundwater projected to be pumped moving forward through the planning horizon.

Table 18 summarizes projected pumping, in 5-year increments, for the period 2015 to 2035. The 2015 pumping projections incorporate the increased Fox Canyon GMA allocation, the completion of the RMWTP



to put brackish Perched Aquifer water to beneficial use, and the construction of a second well in the Tierra Rejada Basin. By 2020, both the Fox Canyon GMA allocation and the Perched Aquifer yield are projected to increase, the latter as a result of rehabilitating the Adhor Well. The construction of a desalination facility to improve supplies in the Santa Rosa Basin is currently in the conceptual stages and is therefore slated for the end of the planning period, in 2035.

| <b>Table 18. Groundwater Projected to be Pumped (AF/Y)</b> |               |               |               |               |               |
|--|---------------|---------------|---------------|---------------|---------------|
| <b>Basin</b>   | <b>2015</b>   | <b>2020</b>   | <b>2025</b>   | <b>2030</b>   | <b>2035</b>   |
| Tierra Rejada  | 928           | 928           | 928           | 928           | 928           |
| Santa Rosa   | 3,530         | 3,530         | 3,530         | 3,530         | 4,650         |
| Fox Canyon   | 860           | 935           | 935           | 935           | 935           |
| Perched Aquifer  | 1,120         | 1,620         | 1,620         | 1,620         | 1,620         |
| <b>Total</b>   | <b>6,438</b>  | <b>7,013</b>  | <b>7,013</b>  | <b>7,013</b>  | <b>8,133</b>  |
| <b>% of Total Water Supply</b>                             | <b>23.72%</b> | <b>24.87%</b> | <b>24.05%</b> | <b>23.44%</b> | <b>25.32%</b> |

Groundwater will remain an important water supply, representing roughly 25 percent of the total supply used within the District.

### **C. Transfer or Exchange Opportunities**

The only transfer currently pursued by Camrosa is a groundwater pumping credit exchange between local agencies within the Fox Canyon Groundwater Management Agency Service Area boundaries. Although this transfer is not on a large scale, it represents a significant volume of water to Camrosa. In keeping with full explanation of Camrosa's water resources and supplies, this small, local transfer is included herein.

#### **1. Pumping Allocation in the Fox Canyon Aquifer**

As Camrosa Water District accepts new properties for potable service, existing ordinances require that groundwater wells on the property be abandoned and water rights be dedicated to the District. If the well is located in the Fox Canyon Aquifer, historical allocations in the aquifer can be transferred to the District. The District's pumping entitlement in the Fox Canyon Groundwater Basin could be adjusted upward as development occurs and is projected to increase by approximately 100 AF by the end of the planning period.

Table 19 indicates the transfer and exchange opportunities available the District.

| <b>Table 19. Transfer and Exchange Opportunities (AF/Y)</b> |                             |                           |                          |
|---|-----------------------------|---------------------------|--------------------------|
| <b>Source Transfer Agency</b>                               | <b>Transfer or Exchange</b> | <b>Short or Long-Term</b> | <b>Proposed Quantity</b> |
| Fox Canyon GMA  | Transfer                    | Long-Term                 | ≤100                     |
| <b>Total</b>  |                             | <b>935</b>                | <b>≤100</b>              |

The potential of developing new sources of supply through both short term and long-term potable water exchanges or potable water transfers is recognized. The District remains vigilant to exchange and transfer opportunities and would incorporate feasible strategies into its long range plan should such opportunities present themselves.

## **2. Groundwater Banking Programs**

The only groundwater banking currently available to Camrosa is its own Woodcreek Well in the Pleasant Valley Basin. This well is an injection/extraction and thus has the capability of being operated as an aquifer storage and recovery (ASR) facility whenever surplus SWP water is available, usually during the winter months. Although surplus water is not available every year, Camrosa has injected up to 300 AF of imported water a year. The injected water is later pumped during periods of high demand or left stored for future years. In recent years, very little water has been injected into the basin and for the most part the Woodcreek Well is used only for extraction. In December 2010 and January 2011, the District injected 46 AF. As the cost of imported water continues to rise, operating the Woodcreek Well as an ASR facility has become uneconomical. It is not likely that any significant additional quantities of water will be injected until such an enterprise becomes economical again.

## **D. Desalinated Water Opportunities**

The UWMP Act requires a discussion of potential opportunities for use of desalinated water (Water Code Section 10631[i]). Camrosa has explored such opportunities, and they are described in the following section, including opportunities for desalination of brackish water, groundwater and seawater. Camrosa Water District has several opportunities to develop more local groundwater for potable consumption through the construction of desalination facilities. Three areas have been identified as sources of local groundwater that, if desalinated, would increase locally produced potable supplies.

### **1. Brackish Water**

Two of the groundwater basins that offer opportunities for desalination contain water of sufficiently elevated salinity to be considered “brackish.”

#### ***a. Perched Aquifer***

As discussed above under Groundwater, the Perched Aquifer at the base of the Conejo Hills provides Camrosa Water District with an opportunity to desalinate local brackish groundwater for potable use. In the past, the Perched Aquifer provided Camarillo State Hospital with 100% of its potable water needs. The proposed Round Mountain Water Treatment Plant (RMWTP) will be designed as a 1.0 MGD capacity reverse osmosis (RO) treatment facility. A pipeline will interconnect the treated water with the existing District infrastructure that serves the CSUCI campus and a second pipeline will transport brine concentrate from the treatment plant through the regional Salinity Management Pipeline (SMP), built by Calleguas Municipal Water District, for ocean disposal. The new treatment plant is expected to remove approximately 85-90% of all constituents, while producing approximately 80% potable water and 20% brine. Construction is expected to commence in early 1012.

#### ***b. Northeast Pleasant Valley Basin – Regional Desalination Facility***

Another possible measure to develop local sources is to construct an additional desalination facility in the general area surrounding Camrosa Water District. Several agencies in the area are currently pursuing an investigation into the feasibility of constructing the Northeast Pleasant Valley Basin Groundwater Desalter just outside the District boundary in the City of Camarillo. A distinct advantage of this project is that the proposed wellfield would draw from the Northeast Pleasant Valley Basin (PVB), instead of the Fox Canyon Aquifer. This area is considered a sub-basin and is hydrogeologically restricted from the Pleasant Valley Aquifer and is easily recharged by surface flows.

The sub-basin is recharged from the Arroyo Las Posas (aka Arroyo Simi upstream and Calleguas Creek downstream) at a surface water inflow rate estimated between 10,000 and 15,000 AF/Y. The water levels in this sub-basin have risen dramatically (over 250') in the past 20 years from this recharge. As surface water in the Arroyo Las Posas originates as tertiary-treated effluent from wastewater treatment plants upstream, the supply recharging the northeast PVB is expected to remain stable for the foreseeable future.

Water quality in the area is declining, with TDS levels currently in the 1,180 mg/l range. Should the northeast PVB continue to fill at its current rate, it will eventually spill into the Pleasant Valley Forebay, potentially degrading the high-quality water there. The Northeast Pleasant Valley Basin Desalter would therefore accomplish several regional goals, including (but not limited to) reducing dependence on imported water, meeting water quality requirements, transporting salts off of the watershed and protecting higher-quality water within the central Pleasant Valley Basin.

Salty groundwater would be pumped from two existing City of Camarillo wells and one new well north of Las Posas Road and east of Somis Road. Salinity would be removed from the water by a RO treatment plant, producing approximately 4,500 gallons per minute (GPM) of drinking water, which equates to approximately 7,300 AF/Y. The project is estimated to cost around \$50M to construct and \$3.7M per year to operate. The cost of product water is expected to be in the vicinity of \$950 per AF. The brine stream from the desalter would be discharged into the Calleguas SMP.

## **2. Groundwater**

### **a. Santa Rosa Basin**

As mentioned briefly in Section 4.B.2, Camrosa Water District pumps its wells in the Santa Rosa Basin far short of both the Basin's sustainable yield and Camrosa's own pumping capacity. Sufficient groundwater may be available in the Basin to significantly increase production from local sources for potable consumption; current estimates are that an additional 1MGD could be pumped from the Basin. The District plans to update the Santa Rosa Basin Groundwater Management Plan in the near future to better define available yield. The quality of the water in the Basin, however, requires that the groundwater be blended with higher quality imported water to meet EPA drinking water regulations, but due to the wellfield's location, introducing greater quantities of imported water to the produced groundwater is not feasible.

A possible alternative is to treat a portion of the groundwater to a quality equal to that of blended groundwater served in the potable system and thereby increase the total groundwater produced from the Santa Rosa Basin. The proposed desalination facility would divert up to 1 MGD from the total groundwater pumped prior to it being blended, treat that stream to the appropriate quality, and inject it into the potable water distribution system. It is expected that, as with the Round Mountain Water Treatment Plant, 80% of the water introduced to the desalter would enter the District's distribution system and 20% would be disposed of in the SMP. This is not a near-term project, but is expected to become realized by the end of the planning horizon.

## **3. Seawater Desalination**

Because the Camrosa Water District is not in a coastal area, it is neither practical nor economically feasible for it to implement a seawater desalination program. However, Camrosa could provide financial assistance to other water suppliers in the construction of their seawater desalination facilities in exchange for other supplies, such as SWP water from Calleguas or for groundwater. Such opportunities will be monitored for feasibility.

## **E. Recycled/Non-Potable Irrigation Water Opportunities**

As described above, Camrosa Water District has two separate non-potable distribution systems, one that serves solely Title-22 recycled water directly from the Camrosa Water Reclamation Facility (CWRF) and the other which distributes non-potable surface water and local groundwater sometimes blended with imported

SWP water to control chloride levels. The content of the surface water, diverted from Conejo Creek, is primarily discharge from Hill Canyon Wastewater Treatment Plant in Thousand Oaks. Currently, Camrosa uses only about one half of the non-potable irrigation water available.

### **1. Recycled Water from Camrosa Water Reclamation Facility (CWRP)**

Camrosa Water District owns and operates a 1.5 MGD Water Reclamation Facility (CWRP). The tertiary-treated product is delivered directly to CSUCI and to surrounding growers as recycled irrigation supply before being sent for storage to Camrosa's storage ponds, which have a storage capacity of 300 AF.

The CWRP produced approximately 1,522 AF of tertiary-treated recycled water in calendar year 2010. About half that flow was distributed to several agricultural properties near the plant and to CSUCI. In addition, Camrosa provides surplus recycled water to properties outside the District boundaries. It is Camrosa's goal that all recycled water produced by the CWRP be put to beneficial use and that none be disposed of in any other way. In the rare event that treated CWRP product flows exceed the capacity of Camrosa's storage ponds and PVCWD will not accept the water, remaining or surplus flows are discharged into Calleguas Creek. When the Salinity Management Pipeline (SMP) is complete and accepts surplus CWRP product, discharges into the creek will cease altogether. The only discharge to the creek during the ten-year period since 2000 was approximately 90 AF during the severe storms of January and February, 2005.

In 2005, the CWRP produced 1,650 AF of tertiary-treated recycled water. Between 2005 and 2010, the volume of CWRP product decreased 7% from 1,650 AF to 1,522 AF, largely the result of a concerted effort made by CSUCI to upgrade the aging wastewater collection system on campus to minimize infiltration and otherwise reduce wastewater flows and also the success of the district-wide water conservation efforts. With these efforts complete, it is expected that moderate growth in wastewater flows will continue on campus over the next 20 years, until the campus reaches full build-out. Accordingly, forecasts for recycled water contained in this document project a recycled water availability of 2,044 AF/Y by 2035.

To accommodate the anticipated increase in wastewater flows, Camrosa is currently in the process upgrading the capacity of the CWRP to 2.25 MGD. Henceforth, the District intends to distribute all CWRP product, with no discharges to the SMP except in the wettest periods.

### **2. Non-Potable Surface Water (from HCWWTP)**

In 2002, non-potable surface water from the Hill Canyon Wastewater Treatment Plant (HCWWTP) became available to the District for the first time. The plant's product water is discharged into the Conejo Creek, where it joins the North and South Forks of the Arroyo Conejo, which are composed primarily of runoff from irrigation and city streets in and around Thousand Oaks. The combined volume of the two Forks of the Arroyo Conejo and the HCWWTP discharge constitute the total flow in what becomes Conejo Creek by the time water is diverted at Camrosa's Diversion Structure. The Arroyo Conejo Forks make up, on average, 20% of Conejo Creek. Between the origin of Conejo Creek and the Diversion Structure, an estimated 1 CFS is lost absorption, evaporation and limited use, called Creek Loss. As required by the water rights decision, another 6 CFS must be returned to Conejo Creek at the Diversion for environmental benefit downstream. Thus, the volume available to the District is the contents of the creek minus the 6 CFS. Table 20 displays the volumes and constituents of Conejo Creek for the previous six years and the total amount available to Camrosa Water District after creek loss and beneficial use.

Discharge from HCWWTP is measured year-round by the City of Thousand Oaks and is, within 1 MGD (10%), stable throughout the year. Using Parshall flumes, the City also measures the flows in the North and South Forks of Arroyo Conejo and provides Camrosa Water District with these flows in annual Flume Reports. This information was used in the calculations reflected in Table 20, below. The agreement regarding Camrosa's primary access to HCWWTP recycled water in Conejo Creek was executed in 1994.

This 25-year contract will expire in 2019. Camrosa is currently in the process of renegotiating the agreement to retain rights to Conejo Creek water.

| <b>Table 20. Conejo Creek/HCWWTP Product Available to Camrosa (AF/Y)</b>   |               |               |               |               |               |               |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
|  | <b>2005</b>   | <b>2006</b>   | <b>2007</b>   | <b>2008</b>   | <b>2009</b>   | <b>2010</b>   |
| Discharge from HCWWTP <sup>1</sup>   | 12,267        | 11,680        | 11,550        | 11,518        | 11,232        | 10,363        |
| North Fork <sup>1</sup>  | 1,822         | 1,477         | 986           | 1,080         | 765           | 902           |
| South Fork <sup>1</sup>  | 5,134         | 5,448         | 2,895         | 2,889         | 3,129         | 2,641         |
| <b>Total Conejo Creek<sup>1</sup></b>  | <b>19,223</b> | <b>18,605</b> | <b>15,431</b> | <b>15,486</b> | <b>15,126</b> | <b>13,907</b> |
|  |               |               |               |               |               |               |
| Beneficial Use Return (6 CFS)  | 4,343         | 4,343         | 4,343         | 4,343         | 4,343         | 4,343         |
| Creek Loss (1 CFS) <sup>2</sup>  | 1,086         | 1,086         | 1,086         | 1,086         | 1,086         | 1,086         |
| <b>Available to Camrosa</b>  | <b>13,795</b> | <b>13,176</b> | <b>10,002</b> | <b>10,058</b> | <b>9,697</b>  | <b>8,478</b>  |
| <b>Diverted from Conejo Creek<sup>3</sup></b>  | <b>7,862</b>  | <b>9,152</b>  | <b>9,053</b>  | <b>8,224</b>  | <b>8,895</b>  | <b>8,853</b>  |
|  |               |               |               |               |               |               |
| Difference/Amount Left in Creek <sup>4</sup>   | 5,933         | 4,024         | 949           | 1,834         | 802           | -375          |
| Percent of Creek Diverted  | 56.99%        | 69.46%        | 90.51%        | 81.77%        | 91.73%        | 104.43%       |
| 1) Data extrapolated from annual HCWWTP Flume Reports<br>2) Creek Loss estimate determined by Camrosa engineers in mass balance analysis of Conejo Creek<br>3) Data actual numbers from Camrosa Water District production reports<br>4) After 7.5 CFS of Beneficial Use and Creek Loss |               |               |               |               |               |               |

Creek Loss is a combination of volume reduction due to seepage into the creek bed, water loss along the creek sides, evaporation, water rights and use below HCWWTP but above the Diversion Structure. As can be seen by the difference between the volume Available to Camrosa and Diverted in 2010, the 1.5 CFS Creek Loss estimate is not exact, for it is not possible that Camrosa diverted more water than was available, and as the Creek Loss is only theoretical, it is in that estimate that the error occurred. Depending on the saturation of the underlying creek bed, ambient temperatures and humidity throughout the year, less than 1.5 CFS may be lost. In 2010, the District diverted 8,853 AF of non-potable surface water from Conejo Creek for delivery through the Non-potable Surface Water Distribution System. These quantities are expected to even out at 10,667 AF/Y, mirroring a leveling off of growth in Thousand Oaks and attendant production of tertiary-treated recycled water at HCWWTP. From 2015 through 2035, it is expected that 10,667 AF of non-potable irrigation water will be available to the District from HCWWTP (see Table 23 for projected available volumes).

The District will continue to depend on Conejo Creek to supply non-potable irrigation water demand throughout the District, and much of the new demand that will be created with the expansion of the non-potable distribution system (see Section 4.F) will be met with Conejo Creek flows. Although the table above indicates that Camrosa diverted nearly every available acre-foot of the creek in 2010, this does not mean that the District is at risk of exhausting an integral supply source. The multiagency agreement that allowed for the creation of the Diversion Structure states that Camrosa has first rights to as much water as it can use prior to passing any surplus through to Pleasant Valley County Water District (PVCWD). As can be seen from Table 21, over the previous six years, more and more diverted Conejo Creek water has stayed within District boundaries. As of 2010, nearly 4,900 AF/Y of the Conejo Creek remain available to Camrosa, and it is in part from this remaining portion of Conejo Creek that Camrosa will supply non-potable demand as it continues to grow.



**Table 21. Use of Conejo Creek Diversions: District vs. PVCWD (AF/Y)<sup>1</sup>**

|   | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  |
|---|-------|-------|-------|-------|-------|-------|
| Total Diverted  | 7,862 | 9,152 | 9,053 | 8,224 | 8,895 | 8,853 |
| Passed Through to PVCWD   | 5,656 | 6,440 | 6,040 | 4,612 | 3,998 | 4,880 |
| Used in Camrosa Water District                                    | 2,206 | 2,712 | 3,013 | 3,612 | 4,897 | 3,973 |
| 1) All information from Camrosa Water District production reports |       |       |       |       |       |       |

### 3. Recycled Water from Camarillo Sanitation District

The Camarillo Sanitary District (CamSan) was formed in 1955 to provide wastewater treatment for most of what is now the City of Camarillo. The treatment plant occupies a 20-acre site on Howard Road next to Conejo Creek within the Camrosa Water District boundaries. The plant currently treats about 4.0 million gallons of wastewater each day, with a maximum capacity of 6.75 million gallons. Over the years, the treatment plant has undergone several modifications to increase its capacity and to incorporate new technologies. Construction to upgrade treatment from “secondary” to “tertiary” levels, in order to meet all DHS was recently completed. After primary treatment the wastewater undergoes tertiary treatment using an “activated sludge treatment” process and is then sent into secondary clarifiers and tertiary filters ultimately disinfected in a contact basin using chlorine. Dechlorination is accomplished with sulfur dioxide before the effluent is delivered for agricultural purposes or discharged to Conejo Creek.

On December 15, 2005, the District executed an agreement with CamSan to pursue a phased approach to jointly resolving salts accumulation, increasing local water supply and enhancing its quality. One of the projects entailed the future delivery of up to 7,500 AF/Y of tertiary-treated recycled water from CamSan via Camrosa’s Non-Potable Irrigation Water Distribution System. At the time, the City of Camarillo did not anticipate operating its own separate recycled water distribution system. The initial agreement included the construction of additional facilities by CamSan to treat CamSan’s WWTP effluent and deliver it to Camrosa. To date, CamSan has completed upgrading the treatment process at its WWTP with nitrification/denitrification and tertiary filtration equipment necessary to meet Title-22 requirements and has completed the design for 80% of the pipeline to deliver effluent to Camrosa’s distribution system. Camrosa has completed the construction necessary for interconnection to Calleguas’s SMP and completed design for a new discharge point south of Potrero Road, which CamSan partially funded.

In August, 2010, CamSan staff notified Camrosa staff that the original agreement to provide up to 7,500 AF/Y of recycled water required modification due to the City of Camarillo’s intent to construct its own non-potable recycled water distribution system and make non-potable recycled water available to its water customers to meet recent water conservation mandates imposed by Metropolitan Water District and the State of California. CamSan has provided updated estimates of recycled volumes that will be made available to the District. These numbers are reflected in Table 22 below. Camrosa will continue to pursue opportunities for mutually beneficial interagency cooperation and anticipates that deliveries of up to 3,400 AF/Y of non-potable recycled water will eventually be available from CamSan as the City of Camarillo nears build-out. Initial deliveries of 440 AF/Y are expected to begin in 2015. Information received from CamSan indicates specific projections through 2030, and then a more general projection of what will eventually be available when the City of Camarillo reaches full build-out. This CamSan has labeled simply “Future.” In order to arrive at a more precise estimate of the amount of water available from CamSan in 2035, Camrosa averaged the rate of growth over the period 2010-2030 of Total Recycled Water Produced by CamSan (107%) and applied this to the projected Total Recycled Water Produced by CamSan 2030, arriving at 5,925 AF. Being as CamSan projects always delivering 4,100 AF to the City of Camarillo, even at build-out,

Camrosa subtracted that same volume from the Total Recycled Water Produced to arrive at an estimate of 1,825 AF of CamSan water available for delivery to Camrosa in 2035, as displayed in Table 22 below.

| <b>Table 22. Discharges from Camarillo Sanitation Department (AF/Y)</b>                         |             |             |             |             |             |                           |                         |
|---|-------------|-------------|-------------|-------------|-------------|---------------------------|-------------------------|
|   | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>Future<sup>1</sup></b> | <b>2035<sup>2</sup></b> |
| Total Recycled Water Produced by CamSan   | 4,200       | 4,340       | 4,780       | 5,170       | 5,530       | 7,500                     | 5,925                   |
| Recycled Water Deliveries to City of Camarillo  | 1,110       | 3,900       | 4,100       | 4,100       | 4,100       | 4,100                     | 4,100                   |
| Recycled Water Available to Camrosa   | 0           | 440         | 680         | 1,070       | 1,430       | 3,400                     | 1,825                   |
| 1) CamSan's estimate of recycled water availability and use at City of Camarillo full build-out |             |             |             |             |             |                           |                         |
| 2) Camrosa's estimate based on average growth over 2010-2030                                    |             |             |             |             |             |                           |                         |

#### **4. Total Non-Potable Recycled Water Available to Camrosa Water District**

Table 23 indicates the total recycled water projected to be available to Camrosa Water District between now and 2035.

| <b>Table 23. Total Combined Recycled Water Available to Camrosa (AF/Y)</b> |               |               |               |               |               |               |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
|  | <b>2010</b>   | <b>2015</b>   | <b>2020</b>   | <b>2025</b>   | <b>2030</b>   | <b>2035</b>   |
| Camrosa WRF  | 1,522         | 1,696         | 1,870         | 2,044         | 2,044         | 2,044         |
| HCWWTP   | 8,853         | 10,667        | 10,667        | 10,667        | 10,667        | 10,667        |
| CamSan   | 0             | 440           | 680           | 1,070         | 1,430         | 1,825         |
| <b>Total</b>   | <b>10,375</b> | <b>12,803</b> | <b>13,217</b> | <b>13,781</b> | <b>14,141</b> | <b>14,536</b> |

#### **5. Non-Potable Irrigation Water Use**

As described in Section 3, the use of non-potable irrigation water has been steadily increasing in the District since the completion of the Conejo Creek Diversion Structure in 2002. Prior to that, the District's non-potable irrigation water distribution system supply was limited to the Water Reclamation Facility (WRF) product. When the Diversion came online, deliveries were made initially to agricultural users. As time went on, the use of non-potable irrigation water diverted from Conejo Creek for landscape irrigation increased as areas built with dual-plumbing connected to the system and others began to install new infrastructure to accommodate the transfer. In 2007, Leisure Village, a retirement community located in the District, began converting its common area, open space, landscape and golf course irrigation to the non-potable distribution system. Completed in 2008, this accounts for roughly 500 AF/Y of the increase over the previous five years. Table 24 indicates the previous five years (2006-2010) of non-potable irrigation water use within the District, as well as the 2005 UWMP projection for 2010 use, as a point of reference. Line loss was not accounted for prior to 2010.



**Table 24. Non-Potable Irrigation Water: Past Use (AF/Y)**

| User Type              | 2006         | 2007         | 2008         | 2009         | 2010         | Projected 2010 <sup>1</sup> |
|------------------------|--------------|--------------|--------------|--------------|--------------|-----------------------------|
| Municipal & Industrial | 167          | 839          | 1,166        | 1,436        | 1,253        | N/A                         |
| Agriculture            | 6,169        | 5,050        | 5,301        | 5,820        | 5,512        | N/A                         |
| <b>Total</b>           | <b>6,336</b> | <b>5,889</b> | <b>6,467</b> | <b>7,256</b> | <b>6,764</b> | <b>6,800</b>                |

1) Projected in Camrosa's 2005 UWMP

Moving forward, line loss of 5% is assumed and accounted for in non-potable irrigation water use projections. The substantial growth in non-potable demand between 2015 and 2030 is due to the estimated potable landscape/agriculture irrigation offset of the proposed non-potable expansion described in Section 4.F, below, which reflects the current strategy of the District in improving self-reliance and lessening dependence on imported SWP water.

**Table 25. Non-Potable Irrigation Water: Current & Potential Future Use (AF/Y)**

| User Type                  | 2015         | 2020         | 2025         | 2030          | 2035          |
|----------------------------|--------------|--------------|--------------|---------------|---------------|
| Municipal & Industrial     | 1,708        | 4,291        | 5,102        | 5,829         | 5,829         |
| Agriculture                | 5,570        | 4,090        | 4,090        | 4,090         | 4,090         |
| Other (NP Line Loss of 5%) | 364          | 419          | 460          | 496           | 496           |
| <b>Total</b>               | <b>7,642</b> | <b>8,800</b> | <b>9,652</b> | <b>10,415</b> | <b>10,415</b> |

## 6. Rate Incentives

In order to encourage use of non-potable irrigation water within the District, significant price incentives have been established. The current (2010) price per acre-foot of potable water for irrigation is \$1,102; non-potable irrigation water served from the Non-potable Irrigation Water Distribution System costs \$305 per AF and non-potable water in the Blended-Ag area, which contains on average roughly 60% potable water to control chloride levels, costs \$862 per AF. The vast majority of customers who will be offered non-potable irrigation water through the expansion described above would receive unblended non-potable irrigation water at a substantially reduced rate to provide sufficient incentive to use this alternate source of supply.

The Board of Directors has adopted a policy that requires developers to install dual piping systems for all new developments. While the potential increase in non-potable demand resulting from such a policy is difficult to quantify due to the unpredictability of the housing market, such a policy should ensure an increase in demand for non-potable irrigation water to serve M&I irrigation needs.

## F. Future Water Projects Under Consideration

Camrosa Water District has developed two strategies to reduce dependency on imported State Water Project water: increasing the production of potable water from local groundwater sources and expanding the non-potable irrigation water distribution system. These two strategies are not contingent upon one

another, nor are they mutually exclusive. The projects presented below represent portions of these two strategies, which Camrosa has included in this plan to demonstrate ways in which the dependency on imported SWP water may be reduced, and are considered a non-exclusive list of alternatives currently under consideration by District staff and its Board. Various projects to pursue each strategy have begun and some have even been completed, others are being planned and still others remain only conceptual. What follows below is a general outline of the two strategies; individual projects will be presented to Camrosa's Board of Directors for approval after in-depth economic analysis and feasibility studies.

### **1. Potable Water Production Projects Under Consideration**

The main components of the District's plan to develop local groundwater sources have been discussed in Section 4.D – Desalinated Water Opportunities. In addition to these three desalination projects, the District also plans to construct an additional well in the Tierra Rejada Valley. As the Round Mountain Water Treatment Plant and the second well in the Tierra Rejada Valley are both expected to come online before the next update of this Urban Water Management Plan in 2015, the volumes they are expected to produce have already been taken into account in supply and demand projections throughout this document. The other two desalination facilities are still conceptual and therefore are not considered in potable water supply projections.

#### ***a. Round Mountain Water Treatment Plant***

One of the old wells that tap the Perched Aquifer at the base of the Conejo Hills, the University Well, has been rehabilitated for the express purpose of feeding a 1 MGD desalination facility. Preliminary yield and drawdown tests indicate that the well will easily produce the desired 1 MGD and initial water quality assessments indicate that the brackish groundwater within the Perched Aquifer should respond well to basic RO filtration. A contract to design the Round Mountain Water Treatment Plant (RMWTP) has been awarded. Easements necessary for pipelines to connect the University Well to the RMWTP are being acquired. A brine line to the regional SMP has been completed. It is estimated that the RMWTP will be operational and providing up to 1 million gallons per day (1,120 AF/Y) of potable water to the potable distribution system by early 2013.

#### ***b. Regional Desalination Facility***

On February 23, 2011, Camrosa's Board of Directors approved an agreement with the Calleguas and the cities of Camarillo, Thousand Oaks and Simi Valley to jointly fund a preliminary study to determine the possibility of a regional desalination facility, the Northeast Pleasant Valley Basin Groundwater Desalter, as described in Section 4.D.2. The objectives of this initial study include: determining water quality/level monitoring, Basin Management Objectives, contingency plans, potential sustainable extractions, and the necessary number, depth and location of wells; defining cones of depression; analyzing the project's potential impacts; and preparing necessary CEQA documentation.

#### ***c. Desalination of Conejo Wellfield Water***

Desalinating Conejo Wellfield water to increase local potable production is contingent upon the SMP, for without that interagency project, disposing of the brine stream from a desalination facility located in this area of the District would be prohibitively expensive. Further investigation and cost-benefit analyses are necessary prior to determining the feasibility of such a project; a schedule for the process is therefore not available.

#### ***d. Second Well in Tierra Rejada Valley***

The water in the Tierra Rejada Basin is currently of sufficiently high quality to not require blending prior to being injected into the potable water distribution system. The District's single well there produces less than its design capacity due to the tendency for a cone of depression to develop when the well is pumped. Developing a second well in the Tierra Rejada Groundwater Basin would allow the District to increase the volume of high-quality water produced in the District's easternmost service area. In addition, the new well would allow the introduction of groundwater into in the highest elevations in the District, an area now served

exclusively with imported water received through a Calleguas meter station. Service reliability would be improved in that pressure zone as a redundant source of potable water would be available in the event of an interruption of imported water service.

This project is predicated upon the prior completion of a Ground Water Management Plan for the Tierra Rejada Basin, as no GWMP for the basin currently exists.

## **2. Non-Potable Irrigation Water Distribution System Expansion Projects Under Consideration**

Another potential strategy of the District's to decrease dependence on imported water is to expand the non-potable irrigation water distribution system so that as many customers in the District service area as possible can irrigate with non-potable irrigation water. Between the District's three sources of non-potable irrigation water described in Section 2.C, there is far more than enough non-potable irrigation water to meet irrigation demand within the District for the foreseeable future. Therefore, the majority of the projects described herein are concerned with expanding the distribution system infrastructure, rather than developing additional sources of non-potable irrigation water. Only one project, rehabilitating the Penny Well, will develop a brand new non-potable water source. The interconnection to the CamSan non-potable water distribution system has been described several places in this document and will not be elaborated upon here. Descriptions of the infrastructure improvements and expansion will be brief and aimed at providing sufficient explanation of the schedule for the transfer of demand from the potable to the non-potable systems first presented in Tables 6 and 7, detailed here in Table 26 and assumed throughout the remainder of this plan.

The specific potential non-potable demand displayed in Table 26 below was calculated based on estimated outdoor irrigation of the parcels that would be provided non-potable service under the expansion strategy outlined herein, which is only one of several options under consideration. In order to estimate this demand, the actual 2008 potable demand of each parcel to potentially be transferred was obtained through Camrosa's CIS/GIS interface. 2008 demand was then multiplied by 80 percent, which is the estimated average of usage per parcel that goes to outdoor irrigation. Parcels were then grouped into phases according to their general geographical area. Although plans for expansion are still general in nature and the descriptions attendant to Table 26 are non-exclusive, specific volumes of potential non-potable irrigation demand are listed here in order to substantiate the information presented in Tables 6 and 7 above.

Of the significant volume of water available from the Hill Canyon Wastewater Treatment Plant, diverted at the Conejo Creek Diversion Structure, the District retained roughly half for use within the District's service area in 2010. The remainder was sent to PVCWD as per the multiagency agreement described in Section 2.C.3. Considering current use and projected development, the potential exists to offset 2,658 AF/Y of potable water use within the District, which is a significant portion of what will be available to the District over the same time frame.

As currently conceived, the expansion would take place in several distinct segments, each of which contains several phases. The location of new storage reservoirs and the alignment of their attendant pipelines will determine which and how many parcels could be provided non-potable irrigation water and the timeframe the water would become available; Table 26 and the discussion that follows are based on one, non-exclusive set of options for this expansion.

**Table 26. Non-Potable Distribution System Expansion  
(Current/Non-Exclusive Conception of Phases)**

| Project Segments               | Parcels      | Scheduled Completion | New Non-Potable Demand | Average AF/parcel |
|--------------------------------|--------------|----------------------|------------------------|-------------------|
| a. Rehabilitate Penny Well     | 37           | 2012                 | 75                     | 2.03              |
| b. Santa Rosa Valley           | 723          | 2015-2030            | 1,696                  | 2.35              |
| c. Seminary & Surrounding Area | 651          | 2020                 | 568                    | 0.87              |
| d. Non-Potable Pressure Zone 1 | 572          | 2030                 | 319                    | 0.56              |
| <b>TOTAL NEW NP DEMAND</b>     | <b>1,926</b> | <b>2030</b>          | <b>2,658</b>           | <b>1.38</b>       |

**a. Rehabilitate Penny Well**

The Penny Well was initially used as a potable water supply and the well is still listed as a standby well in the potable distribution system. In an abundance of caution, the well was taken offline in the spring of 1999, when trace concentrations (well below CDPH MCLs) of agricultural pesticides were found in the wellwater. Subsequently, the winter storms of 2005 washed out the pipeline and power lines leading to the well and it has not been used since.

As the contaminants found in the wellwater are not a concern for non-potable water, it is the District plans to return the Penny Well to use as part of the non-potable distribution system. The Penny Well's immediate impact will be to provide additional pressure to feed Wildwood Estates, located just south of Santa Rosa Road. This residential housing tract is dual-plumbed, but is currently not using its non-potable system due to insufficient pressure. Initially, the well will be pumped far short of its 400 GPM capacity and will contribute just enough to meet the limited Wildwood demand. Based on historical pumping and the general condition of the Santa Rosa Basin (in which the Penny Well lies), the District expects an additional 350 AF/Y from the Penny Well. This is the volume that has been added to supply projections throughout this Plan. Rehabilitation and interconnection is expected to be complete by the end of 2012.

Should the contaminant plume that took the Penny Well out of commission in 1999 have moved on and should water quality be sufficiently high, water produced from the Penny Well may be piped into the potable distribution system. Whether it is used in the potable or non-potable system, the Penny Well's output should reduce the volume of SWP water that must be imported.

**b. Santa Rosa Valley**

Should eastward expansion occur in Santa Rosa Valley, the non-potable irrigation water distribution system would need a significant increase in both storage and pumping capacity in the valley. Currently, two new storage reservoirs – NP 4C Tank and NP 3D Tank – are proposed to provide the needed storage and pressure for the expansion. Parcels near these tanks and their pipelines would begin receiving non-potable irrigation water upon completion of construction.

The main backbone of the Santa Rosa Valley non-potable irrigation water distribution system would extend southeastward in stages, as presented in Table 26, displacing an estimated 1,696 AF/Y of imported potable water use with non-potable irrigation water. Two large residential areas, which would comprise the final two phases of the expansion, may require the introduction of another source of non-potable water and, because of their elevation, more storage and/or new pump stations. Nevertheless, the 456 AF/Y of potential potable

water offset is a goal of the District's and is included in the 2030 supply/demand projections throughout this Plan.

***c. St. John's Seminary and Surrounding Service Area***

Several housing tracts in the western area of the District, near St. John's Seminary, are either dual-plumbed or will be conditioned to be dual-plumbed upon development. At the present time, this entire area is being irrigated with potable water, both agricultural parcels and housing tracts. Due to the area's elevation, a new pump station and reservoir would have to be built to provide sufficient volume and pressure to the 651 parcels that are estimated to demand 568 AF/Y of non-potable irrigation water.

The area has an existing well located within the Fox Canyon Groundwater Management Agency jurisdiction. As part of the proposed development agreement between Shea Homes and the District, Camrosa will seek to have the well and the 104.9 AF/Y allocation dedicated to the District.

***d. Non-Potable Pressure Zone 1***

Several areas in the lower elevations of the District's service area are potential candidates for conversion to the non-potable irrigation water distribution system. As can be seen in Table 26, these projects have low estimated acre-foot per parcel demands. No other operational constraints would necessarily be alleviated by providing non-potable water to these areas. Nonetheless, the offset of potable water is significant: transferred non-potable demand represents 2% of the total water used in the District, and roughly 5% of the annual imported potable water.

**G. Summary of Current and Projected Water Supplies**

The total water supply available to Camrosa Water District was approximately 19,561 AF in 2010. These sources reflect the continued diversion of non-potable surface water from Calleguas Creek, production of recycled water from Camrosa's water reclamation facility, sustained groundwater pumping, and imported State Water Project deliveries through Calleguas Municipal Water District. By 2015, through renewed negotiation, interconnection with the Camarillo Sanitation District is anticipated to bring an additional supply of 440 AF of recycled water to the District. Small pockets of additional urban growth will increase GMA credits by another 100 AF during the planning period. Potential new supplies could be developed by treating water pumped from Santa Rosa Groundwater Basin and desalinating brackish groundwater in the Perched Zone. Water supplies are projected to grow to 32,190 AF by the year 2035.

## Section 5 Water Supply Reliability & Water Shortage Contingency Planning

### A. Water Supply Reliability

#### LAW

10620(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

10631(c)(2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

10634 The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision 9A0 of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

10631(c) (2) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following: (A) An average water year, (B) A single dry year, (C) Multiple dry water years.

10635(a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state regional, or local agency population projections within the service area of the urban water supplier.

The potential issues that could result in reduction of the amount of water supply from each of the Water Supply Sources (listed in Table 14) are discussed below. All water sources are available at consistent levels of use; changes to those levels of use would be brought around by significant and gradual changes in environmental factors, water quality and/or the climate. Where legal agreements are applicable, it is the District's policy to renew or renegotiate current agreements or search out alternative sources far enough in advance to offer ample opportunity to ensure supply prior to the current agreement's expiry. Large-scale conservation and other Demand Management Measures are discussed elsewhere in this Section.

#### 1. Imported Water from Calleguas

As Camrosa depends exclusively upon Calleguas Municipal Water District for its imported potable water supply, and because that supply constitutes roughly two-thirds of the District's total potable supply, the reliability of Camrosa's potable distribution system is dependent upon and equal to the reliability of Calleguas. The main and primary threat to Camrosa's supply of potable State Water Project water imported from Metropolitan Water District via Calleguas Municipal Water District is the relative health and ability to convey water from the Sacramento-San Joaquin Delta. As discussed throughout this plan, the District's primary strategy to conserve imported water and employ alternate sources to SWP water is the large-scale conversion of outdoor, landscape and agriculture irrigation to non-potable irrigation water use. Aside from increasing the use of desalination of various water sources (projects which are presented in



Sections 4.D and 4.F), the District does not have a viable alternative to importing some high-quality, potable SWP water from Metropolitan via Calleguas.

## **2. Groundwater**

Groundwater available to the Camrosa Water District in the four aquifers the District overlays is used to augment imported SWP water, thereby increasing self-reliance and reducing demand on the Sacramento-San Joaquin Delta. As discussed in detail in the remainder of this Section, conservation efforts have proven a great benefit to reducing the amount of imported SWP water the District demands. As the District becomes increasingly capable of utilizing more and more groundwater, the need to import SWP water will continue to decline.

### ***a. Tierra Rejada Basin***

Unexpected reductions in the water table height and water level quality are the primary threats to the Tierra Rejada Basin's reliability. Should water table levels fall, the Tierra Rejada Well's contribution to Camrosa's supply would have to be made up for with increased imported SWP water. Should water quality degrade, water from the Tierra Rejada Basin could potentially be blended with SWP water or, if quality is poor, directed into the non-potable irrigation water distribution system. In either case, more SWP water would have to be imported for the potable system.

The Tierra Rejada Basin does not currently have a groundwater management plan, but the District plans to complete that in the near future.

### ***b. Santa Rosa Basin***

Even by the most conservative estimates, Santa Rosa Basin has additional yield not currently utilized and the basin remains full even during the driest of years. Unexpected reductions in the water table height in the Santa Rosa Basin could negatively affect the District's dependence on the Basin. The project to increase production from the Conejo Wellfield by desalinating a portion of the water extracted there is designed to reduce the District's dependence on imported water under normal conditions and provide additional supply during periods of high demand. Should water levels in the Santa Rosa Basin fall or the water quality significantly degrade, potable supply extracted from the Basin would have to be replaced with imported SWP water; non-potable supply would be substituted with non-potable irrigation water. None of these eventualities is likely to occur, however, and the reliability of the Basin is relatively sure.

The District has plans to update the Santa Rosa Basin Groundwater Management Plan (SRGMP) in the near future.

### ***c. Pleasant Valley Basin***

The Fox Canyon GMA's allocation for the Woodcreek Well is based on an allowance for the residential development overlying the Fox Canyon Aquifer at a rate of 1 acre-foot per acre of land developed. As of 2010, Camrosa's allocations are approximately 807 AF/Y. Due to additional development within the District, this allocation is expected to increase to approximately 916 AF/Y by the end of 2014 and then remain relatively stable through 2035. Because this is an annual allocation, water not pumped cannot be carried over from one year to the next. However, because it is based on developed land, the allocation is considered extremely reliable. As the Woodcreek Well, which produces water from the Fox Canyon Basin, currently produces water that is injected directly into the potable distribution system, should its water quality deteriorate mildly, the water could still be used in the potable system, provided it were blended with SWP. If it were to degrade further, it could be used in the non-potable distribution system, and its contribution to potable supply would have to be fulfilled with SWP water.

### ***d. Perched Aquifer***

Due to the fact that the Perched Aquifer has not been used as a source to supply significant volumes of water for over thirty years, it is difficult to know how the aquifer will respond to renewed extraction at the



proposed volumes. However, based on the most recent hydrogeologic investigation, extractions are planned at a level that can be sustained indefinitely.

### 3. Recycled Water & Non-Potable Irrigation Water

The Title-22 recycled water directly from Camrosa's WRF and CamSan's WWTP, and the non-potable surface water from HCWWTP that is diverted from Conejo Creek, all come from consistent wastewater flows. They are therefore extremely reliable sources of non-potable irrigation water supply, even in the driest of years.

During the planning period 2010-2035, it is expected that the Conejo Creek Diversion will consistently produce more water than needed to satisfy demands within the District and the surplus water will continue to be delivered to the Pleasant Valley County Water District under the existing agreement.

Table 27 indicates the disposal breakdown of the three sources of recycled water available to the District for use in the non-potable irrigation water distribution system.

| <b>Table 27. Disposal of Treated Wastewater (AF/Y)</b> |                     |             |             |             |             |             |             |
|--|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Method of Disposal</b>                              |                     | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
| CWRF   | Discharged to Creek | 0           | 0           | 0           | 0           | 0           | 0           |
|  | Recycled            | 1,522       | 1,696       | 1,870       | 2,044       | 2,044       | 2,044       |
| CamSan   | Discharged to Creek | 0           | 0           | 0           | 0           | 0           | 0           |
|  | Recycled            | 4,200       | 4,340       | 4,780       | 5,170       | 5,530       | 5,996       |
|  | Ag Delivery         | 840         | 840         | 840         | 840         | 840         | 840         |
| HCWWTP   | Discharged to Creek | 3,167       | 4,053       | 4,053       | 4,053       | 4,053       | 4,053       |
|  | Recycled            | 9,939       | 10,667      | 10,667      | 10,667      | 10,667      | 10,667      |
| Estimates based upon plant capacity                    |                     |             |             |             |             |             |             |

The only foreseeable interruptions in supply service of the three sources of non-potable irrigation water are pipeline ruptures on the short-term side and contract/agreement expirations on the long-term. In order to avoid the latter, it is Camrosa's policy to renegotiate contracts well in advance of their expiry. This policy is intended to allow the District sufficient time to develop alternative supplies to ensure that the non-potable irrigation water distribution systems receive adequate supply.

## **B. Water Shortage Contingency Planning**

### **LAW**

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

- (a) 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 which are applicable to each stage.
- (b) 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.
- (c) 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.
- (d) 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.
- (e) 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.
- (f) Penalties or charges for excessive use, where applicable.
- (g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), 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.
- (h) A draft water shortage contingency resolution or ordinance.
- (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

### **1. Imported Water**

In 2010, approximately 40% of the water used within Camrosa Water District was State Water Project water imported from Metropolitan Water District through Calleguas Municipal Water District. Approximately two-thirds of the District's potable water is imported SWP water and the non-potable irrigation water system contains about 10% imported water to curb chloride content in certain portions of the supply served to agricultural users. As Camrosa relies exclusively on Calleguas Municipal Water District for its SWP water supply, and that supply constitutes the majority of the potable water system, the reliability of Camrosa's potable water system is dependent upon Calleguas. Accordingly, the table below presents Calleguas's own local supply projections.

Over the next 10 years, shortages in local supplies will have little impact upon the District's water supply. The quantities of imported State Water Project water that Camrosa relies on to meet normal year demands are significantly reduced from historical levels. This reduction from historical import levels will continue as the non-potable distribution system expands, as demonstrated by the conversion of Leisure Village to non-potable irrigation. Furthermore, Metropolitan has maintained that they will be 100% reliable for the next 20 years, and Camrosa will rely upon augmentation of its imported supply up to historical levels to meet dry- and multiple dry-year demands.

Camrosa will continue to import SWP water to blend with well water to meet potable demand. However, the quantities may be subject to increases in the future should water quality in the Santa Rosa Basin or the Fox Canyon Aquifer deteriorate. Similarly, should chloride levels in SWP water rise precipitously, greater quantities may be necessary to achieve an acceptable blend for potable water quality purposes.

Since 1991, Metropolitan has made significant investments in conservation, water recycling, storage and improved supplies. Groundwater storage programs with Semitropic Water Storage District and Arvin-Edison Water Storage District increase Metropolitan's out-of-region storage capacity of state water project water by 600,000 AF. Additional groundwater storage programs have been established with the San Bernardino Valley MWD, and Kern-Delta Water District that will expand that capacity further. The completion of Diamond Valley Reservoir has added 800,000 AF of supply to southern California's mix of resources available to meet dry year needs. The adoption of a "Water Surplus and Drought Management" (WSDM) Plan in 1999 by the Metropolitan Board of Directors has resulted in more effective management of water resources to further improve the reliability of water deliveries by Metropolitan Water District.

In addition, Metropolitan's 2010 Urban Water Management Plan outlines several other projects being pursued by Metropolitan and the State of California to protect and increase imported SWP supplies. These include flexible Central Valley storage and transfer programs, the Delta Action Plan, the Two-Gate System in the Delta, the Bay Delta Conservation Plan and the Water Supply Allocation Plan.

Table 28 outlines the projected reserves for Metropolitan Water District for Average, Dry Year and Multiple Dry Year conditions. As can be seen from this table, the conservation efforts undertaken by Metropolitan Water District and its member agencies over the previous several years have reduced demand totals well below available supply totals under Normal Year rainfall conditions.

| <b>Table 28. Projected Reserves for Metropolitan Water District (1,000 AF)</b>            |               |               |               |               |               |
|---|---------------|---------------|---------------|---------------|---------------|
| <b>Normal Year</b>  | <b>2015</b>   | <b>2020</b>   | <b>2025</b>   | <b>2030</b>   | <b>2035</b>   |
| Supply Totals   | 2,395         | 2,522         | 2,553         | 2,580         | 2,603         |
| Demand totals   | 1,928         | 1,763         | 1,808         | 1,874         | 1,931         |
| <b>Reserves (Supply – Demand)</b>   | <b>467</b>    | <b>759</b>    | <b>745</b>    | <b>706</b>    | <b>672</b>    |
| <b>Reserves as a % of Demand</b>  | <b>24.22%</b> | <b>43.05%</b> | <b>41.21%</b> | <b>37.67%</b> | <b>34.80%</b> |
|   |               |               |               |               |               |
| <b>Single Dry Year</b>  | <b>2015</b>   | <b>2020</b>   | <b>2025</b>   | <b>2030</b>   | <b>2035</b>   |
| Supply Totals   | 2,260         | 2,322         | 2,366         | 2,405         | 2,419         |
| Demand totals   | 2,094         | 1,993         | 2,025         | 2,080         | 2,146         |
| <b>Reserves (Supply – Demand)</b>   | <b>166</b>    | <b>329</b>    | <b>341</b>    | <b>325</b>    | <b>273</b>    |
| <b>Reserves as % of Demand</b>  | <b>7.93%</b>  | <b>16.51%</b> | <b>16.84%</b> | <b>15.63%</b> | <b>12.72%</b> |
|   |               |               |               |               |               |
| <b>Multiple Dry Years</b>   | <b>2015</b>   | <b>2020</b>   | <b>2025</b>   | <b>2030</b>   | <b>2035</b>   |
| Supply Totals   | 2,171         | 2,305         | 2,343         | 2,378         | 2,402         |
| Demand totals   | 2,154         | 2,049         | 2,106         | 2,163         | 2,224         |
| <b>Reserves (Supply – Demand)</b>   | <b>17</b>     | <b>256</b>    | <b>237</b>    | <b>215</b>    | <b>178</b>    |
| <b>Reserves as % of Demand</b>  | <b>0.79%</b>  | <b>12.49%</b> | <b>11.25%</b> | <b>9.94%</b>  | <b>8.00%</b>  |
| 1) Information from Calleguas Municipal Water District's 2010 Urban Water Management Plan |               |               |               |               |               |

Since 1991, Calleguas Municipal Water District, has also implemented a strategy for meeting rising water demands in its service area by implementing both regional and local supply augmentation and demand management programs. The Las Posas Aquifer Storage and Recovery Project has been an ongoing

project that will store up to 300,000 AF of imported water for use during drought. The project is approximately 70% complete and has an extraction capacity of approximately 70 cubic feet per second (CFS). It is anticipated that a maximum extraction rate of 100 CFS will be available upon completion of the project. Expansion of Lake Bard Water Treatment Plant to 100 CFS has been completed. Finally, Calleguas has invested in regional recycling projects to reduce demand on imported water.

Table 29 below outlines the projected reserves for Calleguas Municipal Water District for Average, Dry Year and Multiple Dry Year conditions:

| <b>Table 29. Projected Reserves for Calleguas Municipal Water District (1,000 AF)<sup>1</sup></b> |              |               |               |               |               |               |
|---|--------------|---------------|---------------|---------------|---------------|---------------|
| <b>Normal Year</b>  | <b>2010</b>  | <b>2015</b>   | <b>2020</b>   | <b>2025</b>   | <b>2030</b>   | <b>2035</b>   |
| Supply Totals   | 118.5        | 129           | 137           | 140.8         | 142.4         | 143.8         |
| Demand totals   | 116.9        | 113.4         | 118.3         | 121.4         | 124.8         | 128.1         |
| <b>Reserves (Supply – Demand)</b>   | <b>1.6</b>   | <b>15.6</b>   | <b>18.7</b>   | <b>19.4</b>   | <b>17.6</b>   | <b>15.7</b>   |
| <b>Reserves as a % of Demand</b>  | <b>1.37%</b> | <b>13.76%</b> | <b>15.81%</b> | <b>15.98%</b> | <b>14.10%</b> | <b>12.26%</b> |
| <b>Single Dry Year</b>  | <b>2010</b>  | <b>2015</b>   | <b>2020</b>   | <b>2025</b>   | <b>2030</b>   | <b>2035</b>   |
| Supply Totals   | 121.3        | 131.9         | 140           | 143.8         | 145.5         | 147           |
| Demand totals   | 120.8        | 118.6         | 123.2         | 126.7         | 132           | 135.2         |
| <b>Reserves (Supply – Demand)</b>   | <b>0.5</b>   | <b>13.3</b>   | <b>16.8</b>   | <b>17.1</b>   | <b>13.5</b>   | <b>11.8</b>   |
| <b>Reserves as % of Demand</b>  | <b>0.41%</b> | <b>11.21%</b> | <b>13.64%</b> | <b>13.50%</b> | <b>10.23%</b> | <b>8.73%</b>  |
| <b>Multiple Dry Years</b>   | <b>2010</b>  | <b>2015</b>   | <b>2020</b>   | <b>2025</b>   | <b>2030</b>   | <b>2035</b>   |
| Supply Totals   | N/A          | 131.1         | 140           | 145.3         | 148.5         | 149.5         |
| Demand totals   | N/A          | 125.4         | 129.9         | 132.7         | 138.7         | 142.6         |
| <b>Reserves (Supply – Demand)</b>   | <b>N/A</b>   | <b>5.7</b>    | <b>10.1</b>   | <b>12.6</b>   | <b>9.8</b>    | <b>6.9</b>    |
| <b>Reserves as % of Demand</b>  | <b>N/A</b>   | <b>4.55%</b>  | <b>7.78%</b>  | <b>9.50%</b>  | <b>7.07%</b>  | <b>4.84%</b>  |
| 1) Information from Calleguas Municipal Water District's 2010 Urban Water Management Plan         |              |               |               |               |               |               |

Calleguas expects to be able to meet all demands for imported water throughout the 25-year planning period, for all three rainfall category years. As a result, the wholesale supply available to the District is considered to be 100% reliable for normal, single dry and multiple dry years. There are no known inconsistencies in the supply that would reduce the amount of water available under non-emergency conditions.

| <b>Table 30. Wholesale Supply Reliability (% of Normal Supply)</b> |                            |                        |                           |               |               |
|--|----------------------------|------------------------|---------------------------|---------------|---------------|
|  | <b>Average/Normal Year</b> | <b>Single Dry Year</b> | <b>Multiple Dry Years</b> |               |               |
|  |                            |                        | <b>Year 1</b>             | <b>Year 2</b> | <b>Year 3</b> |
| Calleguas MWD  | 7,900                      | 100%                   | 100%                      | 100%          | 100%          |

In 1991, the District was importing more than 12,000 AF of State Water Project per year. In developing the inventory of water supplies (Table 14) in 2005, the District expected to import an average of 8,700 AF/Y

between 2010 and 2030. Due to statewide reassessment of the Sacramento-San Joaquin Delta's overall health and sustainability Metropolitan has reduced the amount of water it will allow its constituent agencies to purchase. Thus, quantities expected to be imported for 2015 through 2035 are not expected to exceed 7,900 AF/Y, even in the driest years. Due to the conscious effort on the part of the District to develop alternate water supplies in order to reduce dependence upon imported supplies, and the continued success of conservation efforts on the part of customers, the District will likely stay well below this amount.

## **2. Water Supply Shortage Stages & Conditions**

On June 24, 2009, the Camrosa Water District adopted Ordinance 40-10, "Rules and Regulations Governing the Provision of Water and Sanitary Services." Among other things, the ordinance establishes conditions of service for all classes of water and establishes prohibitions against water waste and provisions for staged reductions in water service during water shortage emergencies. The Ordinance is included as Appendix C in its entirety; applicable portions are quoted below:

### **5.14. Prohibition of Water Waste**

*No person shall cause or permit water under his/her control to be wasted. Willful waste of water may result in additional fees, charges and/or termination of service as directed by the Board of Directors. The following prohibitions are in effect at all times, regardless of whether any declared water supply shortage or water emergency condition is in effect:*

- 1. Gutter Flooding - No person shall cause or permit any water furnished to any property within the District to run or to escape from any hose, pipe, valve, faucet, sprinkler or irrigation device into any gutter or to otherwise escape from the property, if such running or escaping can reasonably be prevented.*
- 2. Leaks - No person shall permit leaks of water that he/she has the authority to eliminate. Any detected leak, break or malfunction shall be corrected within 72 hours after a person discovers or receives notice from the District.*
- 3. Positive Hose-end Shutoff - All garden and utility hoses shall be equipped with a positive hose-end shutoff nozzle.*
- 4. Vehicle Washdown - Vehicles, including but not limited to any automobile, truck, van, bus, motorcycle, boat or trailer shall be cleaned only by use of a hand-held bucket or a hand-held hose with a shutoff nozzle device.*
- 5. Restaurant Equipment - Restaurants are required to use water-conserving dish washing spray valves in all food preparation and utensil cleaning areas.*
- 6. Water Fountains and Decorative Water Features – Operating a water fountain or other decorative water feature that does not use re-circulated water is prohibited*
- 7. Single Pass Cooling Systems - Installation of single pass cooling systems in buildings requesting new water service is prohibited.*

### **5.17. Water Supply Shortage or Water Emergencies**

*"Water Supply Shortage" is a condition when Camrosa Water District determines, in its sole discretion, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions. A "Water Emergency" is a condition resulting from some catastrophic event or events, which cause or threaten to cause an impairment, reduction, or severance of the district's water supply or access to its water supplies in a manner that may result in district's inability to meet ordinary water demands for potable water service. In the event of an imminent inability of the District to*



meet ordinary water demands for a period beyond what can reasonably be considered routine system repairs the General Manager shall report to the Board of Directors on the extent, estimated duration, cause, and estimated severity of the event or events leading to the water supply shortage or water emergency and by resolution the Board of Directors may declare a Water Supply Shortage or Water Emergency and activate one or more of the following emergency provisions of this ordinance:

### **Stage One Water Supply Shortage or Water Emergency**

The goal of a stage one water supply shortage or water emergency declaration is a 10% potable water demand reduction to preserve water supplies for district and or the region until the emergency has ended. The district shall notify its customers via newspaper, radio, television and direct mail or by any other means determined by the district to be prudent that a Water Supply Shortage or Water Emergency has been declared and that the District is requesting all customers to reduce water use by 10%. In addition to the prohibited uses of water outlined in Section 5.14, the following water conservation requirements apply during a declared Stage One Water Supply Shortage or Water Emergency;

1. Leaks - No person may permit leaks of water that he/she has the authority to eliminate. Any detected leak, break or malfunction shall be corrected within 48 hours after a person discovers or receives notice from the District.
2. Wash-Down of Hard or Paved Surfaces – Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by with a hose equipped with a positive self-closing water shut-off device, a low-volume, high-pressure cleaning machine, or a low-volume high-pressure water broom.
3. Drinking Water Served Upon Request Only – Eating or drinking establishments, including but not limited to a restaurant, hotel, café, cafeteria, bar, or other public place where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested.
4. Limits on Watering Durations – Watering of lawns, landscape or other vegetated area with potable water is limited to non-peak demand times and only when necessary. Use of a hand held hose with positive shutoff nozzle; bucket or micro irrigation systems/equipment may be required.
5. Limits on Watering Hours - Watering or irrigating of lawn, landscape or other vegetated area with potable water may be prohibited between the hours of 9:00 a.m. and 5:00 p.m. on any day.

### **Stage Two Water Supply Shortage or Water Emergency**

The goal of a stage two water supply shortage or water emergency declaration is a 20-30% reduction in potable water demands while preventing the loss of property and protecting the health and safety of the community and region. The district shall notice all of its customers via newspaper, radio, television and direct mail or by any other means determined by the district to be prudent that a Water Supply Shortage or Water Emergency has been declared and that the District is requesting customers to reduce water use. In addition to the prohibitions listed in the Stage One Water Supply Shortage or Water Emergency and the prohibited uses of water in Section 5.14 above, the following water conservation requirements to prudently preserve water supplies shall be observed;

1. *Leaks - No person may permit leaks of water that he/she has the authority to eliminate. Any detected leak, break or malfunction shall be corrected within 24 hours after a person discovers or receives notice from the District.*
2. *Limits on Watering Days – Water or irrigating of landscape or other vegetated area with potable water may be limited to three days per week on a schedule established and posted by the District.*
3. *Limits on Filling Residential Swimming Pools & Spas – Use of water to fill or refill swimming pools and spas may be limited to maintain the level of water only when necessary. Draining of pools and spas or refilling shall be done only for health or safety reasons.*
4. *Substitution of Non-potable water - No person shall permit the outdoor use of potable water for irrigation or dust abatement where non-potable or recycled water is available.*

**Stage Three Water Supply Shortage or Water Emergency**

*The goal of a stage three water supply shortage or water emergency is to reduce potable water demands by 30-50% while protecting the health and safety of the community and the region. The district shall notice all of its customers via newspaper, radio, television and direct mail or by any other means determined by the district to be prudent that a Water Supply Shortage or Water Emergency has been declared and that the District is requesting customers to reduce water use. In addition to the actions and requirements of a stage two emergency and the prohibited uses of water in outlined in Section 5.14 above the following water conservation requirements to prudently preserve water supplies shall be observed;*

1. *Irrigation restrictions – Watering or irrigation of lawn, landscape or other vegetated area with potable water may be prohibited by the Board.*
2. *New Potable Water Service – No new potable water service will be provided, no new temporary meters or permanent meters will be provided and no statements of immediate ability to serve or provide potable water service will be issued, except as approved on an individual review by the District.*
3. *Other Prohibited Uses – The District may implement other water use requirements as determined by the District to meet water supply shortage or water emergency conditions.*

*Other Prohibited Uses – The District may implement other water use requirements as determined by the District to meet water supply shortage or water emergency conditions.*

Table 31 below summaries the shortage stages and conditions and expected response in each case.

**Table 31. Water Supply Shortage Stages & Conditions**



| Stage | Water Supply Condition and Staged Responses   | % Reduction |
|-------|---|-------------|
| One   | <u>Condition:</u> Total net supply potable supply (imported and local sources) at 90% of firm supply (e.g. loss of a local groundwater source).<br><u>Response:</u> Voluntary reduction to preserve water supplies.   | 10%         |
| Two   | <u>Condition:</u> Total net supply potable supply (imported and local sources) at 70% to 80% of firm supply (e.g. loss of multiple groundwater sources or a limitation in the availability of imported water).<br><u>Response:</u> Mandatory reduction to prevent property loss & protect health & safety of community. | 20-30%      |
| Three | <u>Condition:</u> Total net supply potable supply (imported and local sources) below 70% of firm supply (e.g. loss of all groundwater sources or significant reduction in the availability of imported water).<br><u>Response:</u> Mandatory reduction to protect health and safety of community.                       | 50%         |

The ordinance allows the Board of Directors to progress through three stages of action in the event of a water shortage emergency. Each stage conserves progressively more water from 10% in Stage 1 to 50% in Stage 3. Since all water delivered by the District is metered both as production supply and as delivered to customers, actual reductions can be measured over time.

Emergency stages are declared by resolution of the Board. An attached draft resolution is attached as Appendix D. The ordinance is specifically written to preserve the Board's discretion to prescribe rates, fees, charges and penalties at the time the emergency is declared. This ensures that the charges will be set appropriately considering the circumstances of the emergency and prevailing factors that would influence the effectiveness of such measures.

### 3. Estimated three-year Minimum Water Supply

Groundwater in the District Service Area is pumped at rates that are sustainable even in multiple-dry year scenarios. Sufficient water is available from imported sources, and levels of non-potable irrigation water available remain constant, as displayed in Table 32. For these reasons, the District's ability to provide water in multiple-dry year scenarios is not adversely affected.

| Table 32. Three-Year Estimated Minimum Water Supply |               |               |               |               |
|---|---------------|---------------|---------------|---------------|
| Source  | 2011          | 2012          | 2013          | Normal        |
| Imported Water                                      | 7,900         | 7,900         | 7,900         | 7,900         |
| Groundwater   | 6,998         | 6,998         | 6,998         | 6,998         |
| Non-Potable Irrigation Water                        | 10,336        | 10,336        | 10,336        | 10,336        |
| <b>Total</b>  | <b>25,234</b> | <b>25,234</b> | <b>25,234</b> | <b>25,234</b> |

### 4. Emergency Response Plan

The District maintains an Emergency Response Plan, separate from this Urban Water Management Plan that outlines procedures necessary to respond to emergency disasters. The purpose of that plan is to:

- Minimize damaging effects of natural or man-made disasters on the water production, water distribution, sewage collection and sewage treatment systems of Camrosa Water District;
- Restore those systems to working order as quickly as possible in the event of disasters,
- Provide local, area and state assistance where and when required during and after disasters as directed by the Ventura Operational Area Emergency Operations Center; and,
- Implement training procedures by going through mock exercises to make certain all employees are well versed in their roles.
- Pursuant to the Public Health Security and Bio-Terrorism Preparedness and Response Act of 2002, Camrosa Water District conducted a vulnerability assessment and submitted a certified copy of that assessment to the U.S. Environmental Protection Agency in June 2004. The confidential report identified known vulnerabilities and countermeasures and responses to be implemented to safeguard against this potential threat. This report was in response to an isolated request and has not been updated. Camrosa Water District, however, continues to improve the security and surveillance of all its facilities.

The District's emergency procedures are fully integrated with the Standard Emergency Management System (SEMS) to ensure effective multi-agency and multi-jurisdictional responses to emergencies. Internally, Camrosa uses the Incident Command System (ICS) structure to provide a scalable, flexible response to emergencies.

The ICS provides procedures for designation of an Incident Commander who is ultimately responsible for all operations, planning, logistics, finance and public interface associated with any given emergency. Employee recall lists are published and contact lists for emergency assistance from outside contractors, utility companies, and other agencies have been pre-prepared. The plan fully contemplates full and open cooperation with the public media and individual customers throughout any emergency condition.

In terms of facilities and equipment to meet catastrophic emergencies, nearly 16 million gallons of tank storage is available within the District to provide immediate gravity-powered water service for most of the District in the event of a power outage. The District has two portable diesel backup generators, one in the District Office yard and another semi-permanently positioned at the Conejo Wellfield. A permanent generator is attached to the Tierra Rejada Well, and another permanent generator will be installed at the Woodcreek Well by the end of 2011. The Camrosa Water Reclamation Facility has installed electrical generation equipment to ensure continued operations for extended periods of time and uninterrupted recycled water service. Each District vehicle is equipped with emergency food and water supplies for extended deployment as well as a full set of system plans. An emergency response trailer is also equipped with supplies and equipment to manage emergency field operations. The water system's SCADA system is set up on an independent radio system with solar-powered instrumentation and radio transmission to maintain system monitoring independent of the electrical grid.

The District maintains sufficient reserves to fund most contemplated emergencies. Extensive replacement of infrastructure, in the most catastrophic circumstances, would require additional funding from sources that would need to be determined at the time of the emergency.

Table 33 below summarizes actions in response to emergency conditions that might reasonably occur in the District.

**Table 33. Catastrophe Response Actions**

| Possible Catastrophe  | Summary of Actions   |
|---|--|
| Regional Power Outage   | <ul style="list-style-type: none"> <li>▪ Evaluate need to initiate the Incident Command System</li> <li>▪ Lock off large interruptible service meters</li> <li>▪ Shift to fixed electrical generators</li> <li>▪ Position portable electrical generators</li> <li>▪ Evaluate need to implement water shortage contingency plan</li> </ul>                                  |
| Earthquake, Flood, or Fire - Caused Catastrophic Damage to Camrosa's Water System | <ul style="list-style-type: none"> <li>▪ Evaluate need to initiate the Incident Command System</li> <li>▪ Isolate damaged sections of system</li> <li>▪ Lock off large interruptible service meters</li> <li>▪ Fill system storage</li> <li>▪ Shift to electrical generators as necessary</li> <li>▪ Evaluate need to implement water shortage contingency plan</li> </ul> |
| Interruption of Supply from Water Wholesaler                                      | <ul style="list-style-type: none"> <li>▪ Evaluate need to initiate the Incident Command System</li> <li>▪ Fill system storage</li> <li>▪ Lock off large interruptible service meters</li> <li>▪ Evaluate need to implement water shortage contingency plan</li> </ul>  |

## 5. Mandatory Prohibitions

Pursuant to Camrosa Ordinance 40-10, Table 34 below summarizes existing mandatory prohibitions that are part of the existing water shortage contingency plan. Additional measures may be implemented at the discretion of the District Board of Directors.

| Table 34. Mandatory Prohibitions  |                                     |
|---|-------------------------------------|
| Examples of Prohibitions  | Stage when Prohibition is Mandatory |
| Potable water for street washing  | Stages 2 and above                  |
| Outdoor potable water use where non-potable irrigation water is available         | Stages 2 and above                  |
| Dust abatement, car washing, driveway and sidewalk washing                        | Stages 2 and above                  |
| Outdoor potable water use except to prevent the loss of perennial plants or trees | Stage 3                             |

## 6. Consumption Reduction Methods

Pursuant to Ordinance 40-10, the following table summarizes consumption reduction methods that would be instituted in the staged water shortage contingency planning by the District. Additional measures may be implemented at the discretion of the District Board of Directors.

| Table 35. Consumption Reduction Methods |
|---|
|---|

| Consumption Reduction Method   | Stage When Method takes Effect | Projected Reduction (%) |
|--|--------------------------------|-------------------------|
| Voluntary Reductions, Public Information                             | Stage 1                        | 10%                     |
| Prohibit aesthetic outdoor water use                                 | Stage 2                        | 20% to 30%              |
| Prohibit all outdoor use except to maintain perennial plants & trees | Stage 3                        | 50%                     |

## 7. Penalties and Charges

In the event of a water shortage emergency, Ordinance 40-10 contemplates that special rates, fees, and/or penalty fees may be required to meet demand reductions necessary to preserve water supply. Since the circumstances prevailing at the time of the water shortage emergency will affect the management of the emergency, the existing ordinance does not presume that such fees will be applicable nor does it attempt to establish the basis for such penalties or charges in advance of the circumstances of the emergency.

| Table 36. Penalties & Charges |   |
|-------------------------------|---|
| Penalty or Charge             | Stage When Penalty Takes Effect   |
| Penalty for excess use        | TBD at Stages 2 or 3 at the discretion of the District Board of Directors |
| Charge for excess use         | TBD at Stages 2 or 3 at the discretion of the District Board of Directors |

## 8. Non-Potable Water Service

As discussed above, some classes of interruptible water service would be curtailed to meet potable water supply reductions. This section discusses the basis for interruptible water service. All Classes of non-potable service and certain classes of potable water service are interruptible as outlined in the following excerpts from Ordinance 40-10:

### 4.2.1.2 Agricultural Water Service Classifications

*Agricultural Water Service is a class of service intended to serve commercial agriculture. This service, unlike Municipal Water Service is interruptible. Agricultural services may be interrupted for extended periods as a result of general water shortages, drought, maintenance requirements, and operational requirements. Agricultural Water Service may not be promptly restored following emergencies. Therefore, Agricultural service shall not be eligible for conversion to the Municipal Service without satisfying all “Will Serve” requirements as set forth in the “Camrosa Water District Will Serve Water Policy”.*

#### **4.2.1.2.1. Agricultural Irrigation Water Service**

*Agricultural Irrigation Water Service is intended for commercial agricultural properties, which raise food crops, floral crops, nursery crops, or commercial livestock. It is not the intent of this ordinance to classify home gardens, home orchards, or pets as agricultural operations. To be eligible for Agricultural Irrigation Water Service the “Property” must include a minimum of one full contiguous, irrigated acre dedicated to commercial agriculture. The “Property” must meet all the general requirements of “Potable Water” service and have a certified backflow prevention device at the meter service.*

#### **4.2.1.2.2. Domestic Agricultural Water Service**

*Domestic Agricultural Water Service is intended for commercial agricultural properties, which raise food crops, floral crops, nursery crops, and commercial livestock where the “Property” includes a dwelling or dwellings in which the residential water requirements are incidental to the agricultural operation. It is not the intent of this ordinance to classify home gardens, home orchards, or pets as agricultural operations. To be eligible for Domestic Agricultural Water Service the “Property” must include a minimum of one full, contiguous, irrigated acre dedicated to commercial agriculture. The “Property” must meet all the general requirements of “Potable Water” service, have a certified backflow prevention device at the meter service, and comply with all “Will Serve” requirements as set forth in the “Camrosa Water District Will Serve Water Policy.”*

### **9. Economic Considerations**

Any reductions in water use will certainly reduce revenues projected by the District to meet planned expenses. Production costs may increase as a result of higher rates and/or penalties placed on pumped or imported water.

The impact of Stage 1, 2 and 3 emergencies upon revenues was examined in detail and is outlined in Table 37 below.

| <b>Table 37. Revenue Impact from Reduced Potable Sales<sup>1</sup></b> |   |                                |                                |                                |
|--|---|--------------------------------|--------------------------------|--------------------------------|
|  |   |                                | <b>Stages of Emergency</b>     |                                |
|  | <b>Average/<br/>Normal<br/>Water Year</b> | <b>Stage 1<br/>10% Cutback</b> | <b>Stage 2<br/>30% Cutback</b> | <b>Stage 3<br/>50% Cutback</b> |
| <b>Water Production Costs</b>  |   |                                |                                |                                |
| Import Purchases   | \$5,908,566                               | \$5,317,709                    | \$4,135,996                    | \$2,954,283                    |
| Non-Potable Irrigation Purchases                                       | \$550,051                                 | \$550,051                      | \$550,051                      | \$550,051                      |
| Energy Costs   | \$974,421                                 | \$898,689                      | \$760,824                      | \$653,046                      |
| <b>Total Water Costs</b>   | <b>\$7,433,038</b>                        | <b>\$6,766,449</b>             | <b>\$5,446,871</b>             | <b>\$4,157,380</b>             |
| <b>Water Revenues</b>  |   |                                |                                |                                |
| Potable Water Sales  | \$8,031,803                               | \$7,228,623                    | \$5,622,262                    | \$4,015,902                    |
| Potable Meter Service Charge   | \$1,518,565                               | \$1,518,565                    | \$1,518,565                    | \$1,518,565                    |
| Non-Potable Sales  | \$1,880,878                               | \$1,880,878                    | \$1,880,878                    | \$1,880,878                    |
| Non-Potable Meter Service Charge                                       | \$87,921                                  | \$87,921                       | \$87,921                       | \$87,921                       |
| NP Irrigation Sales  | \$118,703                                 | \$118,703                      | \$118,703                      | \$118,703                      |
| NP Irrigation Meter Service Charge                                     | \$906                                     | \$906                          | \$906                          | \$906                          |
| <b>Total Water Revenues</b>  | <b>\$11,638,776</b>                       | <b>\$10,835,596</b>            | <b>\$9,229,235</b>             | <b>\$7,622,875</b>             |
| <b>Net from Water Operations</b>                                       | <b>\$4,205,738</b>                        | <b>\$4,069,146</b>             | <b>\$3,782,364</b>             | <b>\$3,465,494</b>             |
| 1) Information garnered from CY 2009 Revenues/Expenses                 |   |                                |                                |                                |

Substantial reductions in revenues resulting from reduced water sales are dampened to a large extent by reductions in imported water purchases. While revenues may be reduced during a Stage 3 Water Emergency by more than \$4 Million compared to a Normal Water Year, water purchase costs are reduced by more than \$3 Million, as well. The estimated net revenue reduction would be \$740,244. In a single year

of water delivery cutbacks, the revenue reductions could be accommodated through the Rate Stabilization Fund and the suspension of Capital Contribution.

The Board of Directors has several options available to maintain financial stability in the event an emergency lasted more than one accounting period.

- Non-capital expenses may be reduced in an attempt to balance reduced revenues.
- The Variation in Water Sales reserve, established to dampen price fluctuations driven by changes in delivered volumes of water and increased production costs, may be used to offset added expenses attributable to a stage 2 or stage 3 water shortage emergency.
- Additional reserves, beyond the Variation in Water Sales reserve may be used to meet costs.
- In the longer term, rates may be restructured to reflect increased costs and/or reduced deliveries.
- Added capital investment may allow accelerated expansion of non-potable supplies or may allow development of lower quality supplies to dampen the need to enter more severe emergency stages.

In all cases, the Board will assess the financial impacts at the point an emergency is declared and will apply the appropriate measures to overcome those impacts.

#### **10. Draft Water Shortage Contingency Resolution**

Consistent with Ordinance 40-05, a draft resolution to serve as a model of the Board of Directors declaration of a water shortage emergency and establishing an appropriate emergency stage is attached as Appendix D.

#### **11. Water Use Monitoring Mechanisms**

The District meters all water production sources and customer water services. In the event of a water shortage emergency, metering would be the primary means to monitor whether reductions are being met. Production metering is automated, real-time, and measured to the nearest gallon. Given the volume of supply, the metering is converted to acre-feet under normal operations. Production metering would provide a broad measure of overall quantity of use in generalized zones. Customer service metering provides quantification of water use by customer. Meters are typically read monthly, but could be read on a more frequent basis as necessary. Customer meter reads are read to the nearest HCF.



| <b>Table 38. Water Use Monitoring Mechanisms</b>   |  |
|--|--|
| <b>Mechanisms for Monitoring Actual Reductions</b> | <b>Type and Quality of Data Expected</b>   |
| Production Metering                                | Production Metering: Real time production metering for all sources of supply, computer compiled and generated trend graphs with quantities measured to the gallon and reported in acre-feet                            |
| Service Metering                                   | Customer service meters: All water use is metered and in normal operations read monthly. More frequent reading could be implemented to evaluate response to staged reduction plan. Metered services calibrated in HCF. |
| Interruptible Service                              | Visual confirmation as needed that locked off meters remain locked off and not providing service   |
| Prohibited Uses                                    | Community monitoring   |

## **C. Water Quality**

### **1. Known and Potential Water Quality Issues**

The quality of the District's water supply is relatively stable and is not currently threatened by contaminants. The quality of imported water is excellent and relatively constant although a trend of increasing chlorides in the water has been noted in recent years. Increasing chlorides in non-potable irrigation water, as a result, may cause some concern for growers who may irrigate salt sensitive crops. It is difficult, however, to determine if the trend will continue and, because cropping patterns can change, it is equally difficult to determine if there will be any impact as a result.

### **2. Water Quality Effects on Reliability**

Increasing nitrate levels in groundwater may require short-term increases in imported water to blend the nitrates levels down to acceptable DHS levels. However, in the long-term, desalination of supplies pumped from the Santa Rosa Aquifer will ensure that supply remains viable. There are no other contaminant issues involving District groundwater supplies. Therefore, the projected volumes of water available to the District, as described in Table 14 are not expected to be affected by water quality issues.

## **D. Drought Planning**

### **1. Supply and Demand – All Water Combined**

The total water supply, from both potable and non-potable sources in 2015 is expected to be 26,791 AF. That quantity is expected to grow to 30,569 AF by 2035. In terms of the 19,561 AF of supplies available to the District in 2010, supplies will increase by 37% by 2015 and will be approximately 56% above 2010 supply by 2035. Projected normal water year supply for all water combined is presented in Table 39.

| <b>Table 39. Projected Normal Water Year Supply: All Water Combined (AF/Y)</b> |             |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|
|  | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
| Projected Supply   | 27,141      | 28,130      | 28,694      | 29,054      | 30,569      |
| % of Year 2010 Supply  | <b>139%</b> | <b>144%</b> | <b>147%</b> | <b>149%</b> | <b>156%</b> |

Demand within the District will grow at a slower rate, allowing surplus water to be made available for delivery outside the District boundaries. Agreements are already in place to provide surplus non-potable irrigation surface water to PVCWD and out-of-bounds deliveries are expected to expand as additional non-potable demands are brought online. In terms of the demand for 2010, demand is expected to be about 21% higher in 2015 and grow to about 30% above 2010 demand as the University grows and the non-potable system is expanded to Tierra Rejada Valley. As 2010 was a relatively wet year, the District thought it pertinent to develop a normalized year to approximate realistic growth over the planning horizon. Due to the economic situation over the last several years, there has been little growth in the District's Service Area. Therefore, an average of the previous four years, which included one dry, one very dry and one normal year, was assumed to represent an adequate approximation of current normalized annual use. As can be seen in Table 40 below, District demand is expected to increase less dramatically over normalized current use than over actual 2010 use: 6% by 2015 and 14% by full build-out.

| <b>Table 40. Projected Normal Water Year Total Demand: All Water Combined (AF/Y)</b> |             |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|
|  | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
| Demand   | 18,203      | 18,990      | 19,464      | 19,475      | 19,475      |
| % of 2010 Demand   | <b>121%</b> | <b>126%</b> | <b>130%</b> | <b>130%</b> | <b>130%</b> |
| % of 2010 Normalized Demand  | <b>106%</b> | <b>111%</b> | <b>114%</b> | <b>114%</b> | <b>114%</b> |

Tables 41 through 43 summarize and compare the supply and demand data previously presented in Tables 4-6 and 15 for normal, single-dry and multiple-dry year scenarios. The Supply totals reflect the sum of all sources from Tables 4, 6 and 7, and include both recycled water from both Camrosa's WRF and CamSan's WWTP as well as and non-potable surface water from the Hill Canyon WWTP. Demand totals reflect all normal demands including line loss. The resulting difference represents projected water surplus for each 5-year increment of the planning period.

Using demand factors previous established, single-dry year demand is expected to increase by 6% over normal-year demand and multiple-dry year demand is expected to increase by 14% over normal-year demand. All water supply is expected to remain the same in all scenarios. In all scenarios, the availability of non-potable irrigation water is flat and represents no change in expected indoor demand.

**Table 41. Projected Normal Water Year Total Supply/Demand: All Water Combined (AF/Y)**

|                                  | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Supply Totals                    | 27,141      | 28,130      | 28,694      | 29,054      | 30,569      |
| Demand totals                    | 18,203      | 18,990      | 19,464      | 19,475      | 19,475      |
| Difference (Supply – Demand)     | 8,938       | 9,140       | 9,230       | 9,579       | 11,094      |
| <b>Difference as % of Supply</b> | <b>33%</b>  | <b>32%</b>  | <b>32%</b>  | <b>33%</b>  | <b>36%</b>  |
| <b>Difference as % of Demand</b> | <b>49%</b>  | <b>48%</b>  | <b>47%</b>  | <b>49%</b>  | <b>57%</b>  |

**Table 42. Projected Single Dry Year Total Supply/Demand: All Water Combined (AF/Y)**

|                                  | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Supply Totals                    | 27,141      | 28,130      | 28,694      | 29,054      | 30,569      |
| Demand totals                    | 19,296      | 20,129      | 20,632      | 20,643      | 20,643      |
| Difference (Supply – Demand)     | 7,845       | 8,001       | 8,062       | 8,411       | 9,926       |
| <b>Difference as % of Supply</b> | <b>29%</b>  | <b>28%</b>  | <b>28%</b>  | <b>29%</b>  | <b>32%</b>  |
| <b>Difference as % of Demand</b> | <b>41%</b>  | <b>40%</b>  | <b>39%</b>  | <b>41%</b>  | <b>48%</b>  |

**Table 43. Projected Multiple Dry Year Total Supply/Demand: All Water Combined (AF/Y)**

|                                  | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Supply Totals                    | 27,141      | 28,130      | 28,694      | 29,054      | 30,569      |
| Demand totals                    | 20,752      | 21,648      | 22,189      | 22,201      | 22,201      |
| Difference (Supply – Demand)     | 6,389       | 6,482       | 6,505       | 6,853       | 8,368       |
| <b>Difference as % of Supply</b> | <b>24%</b>  | <b>23%</b>  | <b>23%</b>  | <b>24%</b>  | <b>27%</b>  |
| <b>Difference as % of Demand</b> | <b>31%</b>  | <b>30%</b>  | <b>29%</b>  | <b>31%</b>  | <b>38%</b>  |

## 2. Supply and Demand – Potable Water

Because the supply of non-potable water available to the District cannot be readily substituted for potable supplies to serve potable demand in case of emergencies or other disruptions of imported potable water service, the projected supply and demand for potable water under various weather scenarios is provided separately from the projected supply and demand for non-potable water. Table 44 displays projected normal water year supplies of potable water, both locally produced and imported.

| <b>Table 44. Projected Normal Water Year Supply: Potable Water (AF/Y)</b> |             |             |             |             |             |
|---|-------------|-------------|-------------|-------------|-------------|
|   | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
| Supply  | 12,926      | 13,501      | 13,501      | 13,501      | 14,173      |
| % of 2010 Supply  | <b>156%</b> | <b>162%</b> | <b>162%</b> | <b>162%</b> | <b>171%</b> |

Although the total supply of imported water available to the District is determined by renewable ten-year agreement, the volume that is actually brought into the District is not fixed. Rather, the District imports sufficient water to blend with local supplies to meet expected demand. During the drought that peaked in 1990, that demand was nearly 12,900 AF, but it has not exceeded 8,900 AF in the intervening years. As discussed in Section 4.A, the District does not expect to import more than 7,900 AF/Y even the very driest years. In developing all of the scenarios, therefore, the District has limited imported water to 7,900 AF/Y. See Appendix E for full justification and supporting documentation from Metropolitan.

With increasing amounts of non-potable supply available to satisfy irrigation demand and an aggressive program to expand the non-potable distribution system, demand for potable water is expected to decline from historical levels and remain relatively level, even though growth will add to the demand. This demand trend reflects continued expansion of non-potable irrigation water use within the District. Table 45 represents projected normal potable demand over the course of the planning horizon.

| <b>Table 45. Projected Normal Water Year Total Demand: Potable Water (AF/Y)</b> |             |             |             |             |             |
|---|-------------|-------------|-------------|-------------|-------------|
|   | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
| Demand  | 11,238      | 10,921      | 10,585      | 9,868       | 9,781       |
| % of 2010 Demand  | <b>136%</b> | <b>132%</b> | <b>128%</b> | <b>119%</b> | <b>118%</b> |
| % of Normalized Current Year Demand   | <b>108%</b> | <b>105%</b> | <b>102%</b> | <b>95%</b>  | <b>94%</b>  |

Tables 46-48 indicate projected potable supply and demand volumes in normal, single-dry and multiple-dry year scenarios. All three scenarios have a goal of limiting imported water to 7,900 AF, an artificial constraint that can be exceeded if necessary.

**Table 46. Projected Normal Water Year Total Supply/Demand: Potable Water (AF/Y)**

|                                  | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Supply Totals                    | 12,926      | 13,501      | 13,501      | 13,501      | 14,173      |
| Demand totals                    | 11,238      | 10,921      | 10,585      | 9,868       | 9,781       |
| Difference (Supply – Demand)     | 1,688       | 2,580       | 2,916       | 3,633       | 4,392       |
| <b>Difference as % of Supply</b> | <b>13%</b>  | <b>19%</b>  | <b>22%</b>  | <b>27%</b>  | <b>31%</b>  |
| <b>Difference as % of Demand</b> | <b>15%</b>  | <b>24%</b>  | <b>28%</b>  | <b>37%</b>  | <b>45%</b>  |

**Table 47. Projected Single Dry Year Total Supply/Demand: Potable Water (AF/Y)**

|                                  | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Supply Totals                    | 12,926      | 13,501      | 13,501      | 13,501      | 14,173      |
| Demand totals                    | 11,912      | 11,576      | 11,220      | 10,461      | 10,368      |
| Difference (Supply – Demand)     | 1,014       | 1,925       | 2,281       | 3,040       | 3,805       |
| <b>Difference as % of Supply</b> | <b>8%</b>   | <b>14%</b>  | <b>17%</b>  | <b>23%</b>  | <b>27%</b>  |
| <b>Difference as % of Demand</b> | <b>9%</b>   | <b>17%</b>  | <b>20%</b>  | <b>29%</b>  | <b>37%</b>  |

**Table 48. Projected Multiple Dry Year Total Supply/Demand: Potable Water (AF/Y)**

|                                  | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Supply Totals                    | 12,926      | 13,501      | 13,501      | 13,501      | 14,173      |
| Demand totals                    | 11,912      | 11,576      | 11,220      | 10,461      | 10,368      |
| Difference (Supply – Demand)     | 1,014       | 1,925       | 2,281       | 3,040       | 3,805       |
| <b>Difference as % of Supply</b> | <b>8%</b>   | <b>14%</b>  | <b>17%</b>  | <b>23%</b>  | <b>27%</b>  |
| <b>Difference as % of Demand</b> | <b>9%</b>   | <b>17%</b>  | <b>20%</b>  | <b>29%</b>  | <b>37%</b>  |

Sufficient supply is available to meet expected potable demand in normal, single-dry years and multiple-dry years. Because contracts have not been renegotiated for the planning horizon, the District is unsure what Metropolitan and, therefore, Calleguas will do should suppliers exceed their allocations in extended drought conditions

### 3. Supply and Demand – Non-potable Irrigation water

Ample supplies of non-potable irrigation water are available to meet expected irrigation demands within the District. As new supplies are brought on line, the District will greatly increase the volume of non-potable water available for distribution.

| <b>Table 49. Projected Normal Water Year Supply: Non-Potable Irrigation Water (AF/Y)</b> |             |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|
|  | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
| Supply   | 14,215      | 14,629      | 15,193      | 15,553      | 16,396      |
| % of 2010 Supply   | 124%        | 128%        | 133%        | 136%        | 143%        |

Demand for non-potable supplies are expected to grow as well as this economical supply is made available to ever-widening areas within the District. Table 50 displays projected normal water year total non-potable demand over the course of the planning horizon.

| <b>Table 50. Projected Normal Water Year Total Demand: Non-Potable Irrigation Water (AF/Y)</b> |             |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|
|  | <b>2015</b> | <b>2020</b> | <b>2025</b> | <b>2030</b> | <b>2035</b> |
| Demand   | 7,642       | 8,800       | 9,652       | 10,415      | 10,415      |
| % of 2010 Demand   | 113%        | 130%        | 143%        | 154%        | 154%        |
| % of Normalized Current Year Demand  | 111%        | 128%        | 141%        | 152%        | 152%        |

It was assumed that demand for non-potable irrigation water would increase by 6% in single dry year scenarios. Sufficient non-potable irrigation water is available to serve expected demands in even the driest scenarios and in multiple-dry years, which are projected to see an 18% increase in demand. It is expected that surplus water will continue to be available for delivery outside the district boundaries in even the driest years and multiple-dry year scenarios, as displayed in Tables 51-53.



**Table 51. Projected Normal Water Year Total Supply: Non-Potable Irrigation Water (AF/Y)**

|                                  | 2015       | 2020       | 2025       | 2030       | 2035       |
|----------------------------------|------------|------------|------------|------------|------------|
| Supply Totals                    | 14,215     | 14,629     | 15,193     | 15,553     | 16,396     |
| Demand totals                    | 7,642      | 8,800      | 9,652      | 10,415     | 10,415     |
| Difference (Supply – Demand)     | 6,114      | 5,829      | 5,541      | 5,138      | 5,981      |
| <b>Difference as % of Supply</b> | <b>46%</b> | <b>40%</b> | <b>36%</b> | <b>33%</b> | <b>36%</b> |
| <b>Difference as % of Demand</b> | <b>86%</b> | <b>66%</b> | <b>57%</b> | <b>49%</b> | <b>57%</b> |

**Table 52. Projected Single Dry Year Total Supply/Demand: Non-Potable Irrigation (AF/Y)**

|                                  | 2015       | 2020       | 2025       | 2030       | 2035       |
|----------------------------------|------------|------------|------------|------------|------------|
| Supply Totals                    | 14,215     | 14,629     | 15,193     | 15,553     | 16,396     |
| Demand totals                    | 8,101      | 9,328      | 10,231     | 11,040     | 11,040     |
| Difference (Supply – Demand)     | 6,114      | 5,301      | 4,962      | 4,513      | 5,356      |
| <b>Difference as % of Supply</b> | <b>43%</b> | <b>36%</b> | <b>33%</b> | <b>29%</b> | <b>33%</b> |
| <b>Difference as % of Demand</b> | <b>75%</b> | <b>57%</b> | <b>49%</b> | <b>41%</b> | <b>49%</b> |

**Table 53. Projected Multiple Dry Year Total Supply/Demand: Non-Potable Irrigation (AF/Y)**

|                                  | 2015       | 2020       | 2025       | 2030       | 2035       |
|----------------------------------|------------|------------|------------|------------|------------|
| Supply Totals                    | 14,215     | 14,629     | 15,193     | 15,553     | 16,396     |
| Demand totals                    | 9,018      | 10,384     | 11,389     | 12,290     | 12,290     |
| Difference (Supply – Demand)     | 5,197      | 4,245      | 3,804      | 3,263      | 4,106      |
| <b>Difference as % of Supply</b> | <b>37%</b> | <b>29%</b> | <b>25%</b> | <b>21%</b> | <b>25%</b> |
| <b>Difference as % of Demand</b> | <b>58%</b> | <b>41%</b> | <b>33%</b> | <b>27%</b> | <b>33%</b> |

## Section 6 Demand Management Measures

### LAW

10608.36. Urban wholesale water suppliers shall include in the urban water management plans required pursuant to Part 2.6 (commencing with Section 10610) an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this part.

10631 (f) (1) and (2) Describe and provide a schedule of implementation for each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following: (A) water survey programs for single-family residential and multifamily residential customers; (B) residential plumbing retrofit; (C) system water audits, leak detection and repair; (D) metering with commodity rates for all new connections and retrofit of existing connections; (E) large landscape conservation programs and incentives; (F) high-efficiency washing machine rebate programs; (G) public information programs; (H) school education programs; (I) conservation programs for commercial, industrial and institutional accounts; (J) wholesale agency programs; (K) conservation pricing; (L) water conservation coordinator; (M) water waste prohibition; (N) residential ultra-low-flush toilet replacement programs.

10631 (f) (3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

10631 (f) (4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.

10631 (g) An evaluation of each water demand management measure listed in paragraph (1) subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following: (1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors; (2) Include a cost-benefit analysis, identifying total benefits and total costs; (3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost; (4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.

Improving water supply reliability and maintaining its affordability have been ongoing priorities of the District. During the most recent drought, the District was subjected to 30% cutbacks in imported water deliveries and immediately began developing alternative water sources. Camrosa has been a leader among local water Districts in promoting non-potable irrigation water use and has placed 12,000 AF of non-potable water on-line to reduce demand on imported water. In addition to developing new supplies, the District has found it prudent to implement demand management measures as well to ensure long-term reliability.

#### A. Conservation Programs

Camrosa Water District is committed to implementing water conservation and water recycling programs. As a signatory to the California Urban Water Conservation Council's (CUWCC) Memorandum of Understanding, the District is actively involved in implementing a prescribed set of urban water conservation best management practices (BMPs).

Camrosa Water District has implemented or plans to implement all of the required Demand Management Measures outlined in the CUWCC's BMPs. Annual reports are filed with the CUWCC on activities conducted by the District to effect implementation. Coverage Reports are provided in Appendix B.

On December 24, 2010, DWR approved of Camrosa's Self-Certification Statement regarding the implementation of its Urban BMPs, declaring that Camrosa's implementation is consistent with AB 1420 and, therefore, is eligible to receive water management grant or loan funds (see Appendix F for DWR Certification).

The CUWCC has indicated that should it receive FY2010 BMP Reports from water agencies by May 31, 2011, it would gauge compliance in time to include approval in this 2010 UWMP. When CUWCC certification is received, it will be added as an appendix and will be described in place of this text.

## **B. BMP Summary**

The following is a brief summary some of the implementation actions initiated by the District. In order to satisfy the UWMP Act, specific activity numbers (for such programs as ULFTs and HECW, etc.) will be added. While these are unnecessary should the CUWCC certification be obtained, the fact that as of now that certification has not been submitted (due 5/31/11 as note above), it is in the District's best interest to provide adequate reporting herein as a precautionary measure.

### **1. Utility Operations Programs**

#### **BMP 1.11: Water Conservation Coordinator**

While several people contribute to the conservation efforts at the District, Camrosa has a Water Conservation Technician who is responsible for all conservation related programs and implementing the BMPs formulated by the CUWCC. The water conservation program is a line item in the District's budget.

#### **BMP 1.12: Water Waste Prohibition**

In December 2008, at the time BMPs were last reported, the District was not in full compliance with this BMP. Since that time, the District has amended its ordinance to upgrade its Water Waste Prohibitions to prohibit use of facilities such as single pass cooling systems and non-circulated water fountains (among other prohibitions) and included the requirement to use dish washing spray valves, and positive hose-end shutoff nozzles. In addition, the District included consumer demand reductions through a staged Water Supply Shortage Plan to accommodate drought or other water supply conditions. The District is now 100% in compliance as a result of the above additions to the water waste prohibitions and Staged Water Supply Shortage Plan.

#### **BMP 1.13: Wholesale Agency Programs**

This BMP does not apply to Camrosa.

#### **BMP 1.20: System Water Audits, Lead Detection and Repair**

The historical average for unaccounted water for Camrosa Water District is 4.8%, substantially under the observed range of 10-15% as stated in AWWA Manual M32. The District is conscientious about locating and repairing main and service connection leaks when they occur. While the 2005 observed water-loss was 7.5%, this was partially due to pipe ruptures which occurred as a result of severe winter storms, and line loss was only 4.8% in 2010. The District has initiated a process to reduce unaccounted-for water-loss to less than 5% for the planning period covered by this plan. For the annual 2009 CUWCC BMP reporting period, the District will implement and report the AWWA's 3<sup>rd</sup> Edition M36, "*Water Audits and Loss Control Program*" using AWWA's Water Audit Software.

#### **BMP 1.30: Metering with Commodity Rates**

Camrosa has a two-tier rate structure for the water system and all water connections are metered. Camrosa does not intend to implement a volumetric pricing structure for the wastewater system.

**BMP 1.40: Conservation Pricing**

The District has implemented a rate structure that includes a meter service fee that is fixed by meter size and a tiered commodity rate which increases in proportion to the amount of water used.

**2. Educational Programs****BMP 2.10: Public Information Programs**

The District actively participates in associations such as the Association of Water Agencies of Ventura County, and the California Urban Water Conservation Council. Literature from these two associations and from Metropolitan Water District and Calleguas Municipal Water District is used in educating the public.

The District participates in the Watershed Coalition of Ventura County Water Use Efficiency Group, which is made up of local water conservation coordinators throughout Ventura County. The Group was just recently organized and is currently investigating the most efficient ways to develop a unified regional message that water conservation and specifically landscape water use efficiency, is an important and necessary component of the region's effort to improve water supply reliability.

The District has developed an effective public outreach program to educate the District's customers about water resources and conservation. Included in the public outreach and education program is an interactive website to provide a resource tool for the customers. In 2008, the District inaugurated its newsletter, "The Independent," as another public outreach/education resource to inform customers of water supply resource challenges and conservation practices. The District also hosts speaker bureaus to inform local community organizations about the challenges facing California and the District regarding water reliability, water quality and the future of water availability and cost. In addition, the District includes water conservation messages in its monthly bills, to remind customers of easy day-to-day water conservation practices and techniques.

Residential Landscape Classes are another public outreach and education forum the District utilizes to educate customers on good water stewardship, in such areas as California-Friendly gardens, landscape design, and irrigation maintenance.

**BMP 2.20: School Education Programs**

The District has conducted teacher in-service workshops to promote water awareness as part of the school curriculum. Coordinated with Metropolitan, Calleguas Municipal Water District and the City of Camarillo, a teacher resources workshop is hosted annually with the school district to promote Metropolitan's educational materials that meet local elementary and junior high school curriculum. In addition, the District holds an annual art contest with elementary and junior high school students to promote and educate water conservation. The winners are submitted to Metropolitan to be considered as part of the annual "Water Is Life" calendar contest. The District also hosts an annual school assembly called "H<sub>2</sub>O, Where Did You Go?" to local schools to promote water resource and conservation education.

**3. Residential Programs****BMP 3.11: Indoor Water Surveys**

Camrosa currently does not offer indoor water surveys to its customers. Based upon past offers of indoor Water Surveys, we have found that Camrosa customers are hesitant to invite District personnel into their homes and the number of surveys requested was extremely low. Instead, the District distributes the California Urban Water Conservation Council's *Practical Plumbing Handbook*, which residents can use to perform self surveys. Camrosa also distributes indoor water saving devices such as low-flow showerheads, faucet aerators, and toilet flappers free of charge at the main office. In addition to the distribution of indoor water saving devices, the District fully participates in Metropolitan Water District's SoCal Water\$mart rebate program and advertises the financial rebates for High Efficiency Toilets and High Efficiency Clothes Washers and other water saving rebates for residential water users.

Effective with the next report, the District intends to begin reporting by the Gallons Per Capita Per Day (GPCD) Alternative Conservation Approach. Using this approach, the District will demonstrate full compliance with the following BMP's through the GPCD Alternative Conservation Approach.

#### **BMP 3.12 Outdoor Water Surveys**

Camrosa offers outdoor water surveys through a third party vendor to customers who request water surveys. The District has partnered with local water purveyors in a regional landscape survey program, Ventura County Regional Urban Landscape Efficiency Program (VC-Rule). The program is designed to improve irrigation efficiency, conserve water and improve the reliability of Ventura County's water supply. Customers will be offered a landscape survey, direct installation low-precipitation rate nozzles, and either rain gage or weather-based irrigation controller to achieve significant landscape water savings. In addition, the District has partnered with the Ventura County Resource Conservation District to provide large landscape water evaluations with the use of grant funding.

#### **BMP 3.20: Residential Plumbing Retrofit**

Low-flow showerheads, faucet aerators, and toilet flappers are available upon request at the District office at no cost. Camrosa distributes Welcome Packets to new residents when new water services are activated. Included in the Welcome Packets is information regarding the indoor water saving devices offered to our customers, and Metropolitan's residential rebates for water efficient appliances. These water saving devices are also presented at Residential Landscape Classes.

#### **BMP 3.30: High-Efficiency Washing Machine Rebate Programs**

The District participates with Metropolitan in their SoCal Water\$mart rebate program which offers High-Efficiency Clothes Washer rebates. In 2008, Metropolitan assumed responsibility of administering the rebate program, and customers now submit applications to, and receive rebates directly from Metropolitan.

#### **BMP 3.40: Residential Ultra Low Flush Toilet (ULFT) Replacement Program**

Included in Metropolitan's SoCal Water\$mart program are rebates for High-Efficiency Toilets. In 2009, Metropolitan replaced the ULFT rebate program with High-Efficiency Toilets (HETs) as to achieve greater long-term water savings from the HETs.

### **4. Commercial, Industrial, Institutional**

#### **BMP 4.00: Commercial, Industrial & Institutional Water Conservation Program**

The District has conducted large landscape water surveys, through the use of outside contractors, for Multi-Family Home Owners Associations. The District promotes Metropolitan's Save-A-Buck rebate program which targets Commercial, Industrial and Institutional customers. Water-efficient devices eligible for rebates include Commercial HETs, Ultra Low Water Urinals, and Zero Water Urinals, Cooling Tower Controllers, Water Brooms, Weather-based Irrigation Controllers, and Rotating Nozzles.

### **5. Landscape**

#### **BMP 5.00: Large Landscape Conservation Programs and Incentives**

The District implemented Residential Landscape Class and professional training programs, sponsored by Metropolitan Water District of Southern California, in 1998. The District has a water-efficient California Friendly Demonstration Garden, which was partially funded by Metropolitan's City Makeover grant program. The garden is used during Residential Landscape Classes as a demonstration and has resulted in a number of customers using water efficient plants in their own gardens.

Working with the Resource Conservation District of Ventura County, Camrosa has provided large landscape water surveys to customers who have avocado irrigation systems. These surveys evaluate irrigation systems for ways to improve distribution uniformity.

Metropolitan Water District of Southern California selected Camrosa to participate in a pilot program for weather-based irrigation controllers (WBIC). Customers were offered a free WBIC for the removal and exchange of their existing irrigation controller. The District continues to promote WBICs to customers with large landscapes through the Residential Landscape Class and outreach material.



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**APPENDIX A. Announcements and Resolutions**

- Resolution 11-04: A resolution of the Board of Directors of Camrosa Water District Adopting the Urban Water Management Plan 2010
- Announcement of Public Hearing
- Proof of Public Hearing

*Resolution No: 11-04*

*A Resolution of the Board of Directors  
of  
Camrosa Water District*

**Adoption of the 2010 Update of  
Camrosa Water District's  
Urban Water Management Plan**

*Whereas, The Urban Water Management Planning Act (Water Code Sections 10631-10633, 10635, 10642 et seq.) requires urban water suppliers providing municipal water directly or indirectly to more than 3,000 customers, or who supply more than 3,000 acre-feet of water annually, to adopt an Urban Water Management Plan; and,*

*Whereas, The Urban Water Management Planning Act further requires review of the Urban Water Management Plan at least once every five years; and,*

*Whereas, The Act mandates that the Urban Water Management Plan and amended versions be filed with the California Department of Water Resources; and,*

*Whereas, The District is an urban supplier of water, serving a population of approximately 27,000; and,*

*Whereas, the District has therefore, prepared and circulated for public review a draft Urban Water Management Plan; and,*

*Whereas, a properly noticed public hearing regarding said Plan was held by the Board of Directors on June 8, 2011; and,*

*Whereas, Camrosa Water District did prepare and shall file said Plan with the California Department of Water Resources by July 1, 2011;*

**Board of Directors**

Al E. Fox  
Division 1  
Jeffrey C. Brown  
Division 2  
Timothy H. Hoag  
Division 3  
Eugene F. West  
Division 4  
Terry L. Foreman  
Division 5

**General Manager**

Frank E. Royer

May 5, 2011

Lucy McGovern  
City of Camarillo  
601 Carmen Dr.  
Camarillo, CA 93010

**2010 Urban Water Management Plan**

The Camrosa Water District (Camrosa) hereby provides public notice that its Draft 2010 Urban Water Management is now available for public review.

**Urban Water Management Plan**

Camrosa has prepared the Urban Water management Plan (Plan) for submission to the California Department of Water Resources. The document was developed in response to Water Code Sections 10620, 10621, 10631-10635, and 10642 of the Urban Water Management Planning Act. These plans which describe and evaluate reasonable, practical, and efficient water uses, reclamation and conservation activities are to be filed with the California Department of Water Resources every 5 years ending in five or zero.

**Public Review Period**

The Act requires that prior to adopting the plan the urban water supplier shall make the plan available for public review. As such Camrosa has made the plan available for public review at the Camarillo Public Library, at the Camrosa office as well as the Camrosa Water District website at [www.camrosa.com](http://www.camrosa.com).

Written comments on the Plan are to be submitted by June 5, 2011 to:

Mr. Joe Willingham – Planning and Data Systems Manager  
7385 Santa Rosa Road  
Camarillo, CA 93012  
[jwillingham@camrosa.com](mailto:jwillingham@camrosa.com)

**Public Hearing**

A public hearing on this matter will be held at the Camrosa Board of Directors meeting on June 8, 2011. It is anticipated that the Board of Directors will adopt the Plan at this meeting. This meeting will provide a final opportunity to submit written and/or verbal comments regarding the Plan

Publish May 8<sup>th</sup> and May 15<sup>th</sup> of 2011

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**General Manager**  
Frank E. Royer

May 5, 2011

City of Thousand Oaks  
Dept. of Public Works  
2100 Thousand Oaks Blvd.  
Thousand Oaks, CA 91362

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**General Manager**

Frank E. Royer

May 5, 2011

Susan Mulligan  
Calleguas Municipal Water District  
2100 Olsen Road  
Thousand Oaks, CA 91360-6800

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Terry L. Foreman  
Division 5

**General Manager**  
Frank E. Royer

May 5, 2011

Mr. Dave Chakraborty, Dir. of Construction & Operations  
CSU Channel Islands  
1 University Drive  
Camarillo, CA 93012

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*Division 5*

**General Manager**

Frank E. Royer

May 5, 2011

County of Ventura  
Dept. of Public Works  
800 S. Victoria Ave.  
Ventura, CA 93009

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**General Manager**

Frank E. Royer

May 5, 2011

Pleasant Valley County Water District  
154 S. Las Posas Road  
Camarillo, CA 93010

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# Certificate of Publication

Ad #275076

In Matter of Publication of:

Public Notice

State of California)

))§


County of Ventura)

I, **Maria Rodriguez**, hereby certify that the **Ventura County Star Newspaper** has been adjudged a newspaper of general circulation by the Superior Court of California, County of Ventura within the provisions of the Government Code of the State of California, printed in the City of Camarillo, for the County of Ventura, State of California; that I am a clerk of the printer of said paper; that the annexed clipping is a true printed copy and publishing in said newspaper on the following dates to wit:

May 07, 14 2011

I, Maria Rodriguez certify under penalty of perjury, that the foregoing is true and correct.

Dated this May 16, 2011, in Camarillo,  
California, County of Ventura.

  
**Maria Rodriguez**  
(Signature)

**2010 Urban Water Management Plan**

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Mr. Joe Willingham -  
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[jwillingham@camrosa.com](mailto:jwillingham@camrosa.com)

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Publish May 7th and May 14th of 2011 Ad No.275076

**Board of Directors**

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*Division 5*

**General Manager**

Frank E. Royer

**NOTICE OF PUBLIC HEARING**

NOTICE IS HEREBY GIVEN that a Public Hearing with the Camrosa Water District Board of Directors will be held:

**---Wednesday, June 8, 2011 at 5:00pm---**

**CAMROSA WATER DISTRICT  
7385 Santa Rosa Rd. Camarillo, CA. 93012  
(805) 482-4677**

The purpose of this Public Hearing is to give the public the opportunity to submit written and or verbal comments regarding the 2010 Urban Water Management Plan (UWMP) for the Camrosa Water District. The UWMP provides a comprehensive assessment of Camrosa's water resource needs for a 20-year planning period and provides the Department of Water Resources with information on present and future water sources and demands.

This document was developed in response to Water Code Sections 10620, 10621, 10631-10635 and 10642 of the Urban Water Management Planning Act. Copies of the UWMP are available for public review at the following locations:

- Camarillo Public Library
- Camrosa Water District office
- [www.camrosa.com](http://www.camrosa.com) (Camrosa Water District website)

All written comments on the Plan are to be submitted by June 5, 2011 to:

Mr. Joe Willingham – Planning and Data Systems Manager  
7385 Santa Rosa Road  
Camarillo, CA 93012  
Email: [jwillingham@camrosa.com](mailto:jwillingham@camrosa.com)

---

Frank E. Royer  
Secretary / General Manager  
CAMROSA WATER DISTRICT BOARD OF DIRECTORS

May 5, 2011

ALL INTERESTED PARTIES:

2010 Urban Water Management Plan

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Urban Water Management Plan

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Publish May 7<sup>th</sup> and May 14<sup>th</sup> of 2011



**APPENDIX B. CUWCC Reporting**

- *FY2009-10 Coverage Report*



# CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

## Foundation Best Management Practices for Urban Water Efficiency

Agency: **Camrosa Water District**

Retail

District Name: **Camrosa Water District**

CUWCC Unit #: **35**

Primary Contact **Tamara Sexton**

Telephone **805.482.8514**

Email: **tamaras@camrosa.com**

Compliance Option Chosen By Reporting Agency:  
(Traditional, Flex Track or GPCD)

GPCD if used:

|                      |     |
|----------------------|-----|
| GPCD in 2010         | 309 |
| GPCD Target for 2018 | 313 |

| Year | Report | Target |      | Highest Acceptable Bound |      |
|------|--------|--------|------|--------------------------|------|
|      |        | % Base | GPCD | % Base                   | GPCD |
| 2010 | 1      | 96.4%  | 368  | 100%                     | 382  |
| 2012 | 2      | 92.8%  | 355  | 96%                      | 368  |
| 2014 | 3      | 89.2%  | 341  | 93%                      | 355  |
| 2016 | 4      | 85.6%  | 327  | 89%                      | 341  |
| 2018 | 5      | 82.0%  | 313  | 82%                      | 313  |

Not on Track if 2010 GPCD is  $\geq$  than target

GPCD in 2010 **309**

Highest

Acceptable GPCD **382**

for 2010

On Track

Reporting Period: **Fiscal**

Agency: **Camrosa Water District**  
Retail

District Name: **Camrosa Water District**

CUWCC Unit #: **35**



**CUWCC BMP RETAIL COVERAGE REPORT 2009-2010**  
**Foundation Best Management Practices for Urban Water Efficiency**

**BMP 1.1 Operational Practices**

**2009****2010**

|                            |       |  |  |
|----------------------------|-------|--|--|
| 1.Conservation Coordinator | Name  | Donnie Alexander                                   | Donnie Alexander                                   |
|                            | Title | Conservation Coordinator/Communications Specialist | Conservation Coordinator/Communications Specialist |
|                            | Email |  | Donniea@camrosa                                    |

**On Track****On Track**

2. Water waste prevention documentation

|                  |  |  |
|------------------|--|--|
| Descriptive File | CamrosaWaterDistrict_35_BMP1_ordinance40-10, CamrosaWaterDistrict_35_BMP1_Ordinance38  | CamrosaWaterDistrict_35_BMP1_ordinance40-10, CamrosaWaterDistrict_35_BMP1_Ordinance38  |
| URL              | Ordinance 38-09 Establishing A Water Shortage Management Policy, Ordinance 40-10 Rules & Regulations Governing Provision of Water & Sanitary Services (reference Section 5 Conditions of Water Service; 5.3 Water Leaks and 5.17 Water Supply Shortage or Wate | 0  |
| Description      | Ordinance 38-09 Establishing A Water Shortage Management Policy, Ordinance 40-10 Rules & Regulations Governing Provision of Water & Sanitary Services (reference Section 5 Conditions of Water Service; 5.3 Water Leaks and 5.17 Water Supply Shortage or Wate | Ordinance 38-09 Establishing A Water Shortage Management Policy, Ordinance 40-10 Rules & Regulations Governing Provision of Water & Sanitary Services (reference Section 5 Conditions of Water Service; 5.3 Water Leaks and 5.17 Water Supply Shortage or Wate |

**On Track****On Track**

Agency: **Camrosa Water District**  
Retail

District Name: **Camrosa Water District**

CUWCC Unit #: **35**



**CUWCC BMP RETAIL COVERAGE REPORT 2009-2010**  
**Foundation Best Management Practices for Urban Water Efficiency**

**BMP 1.2 Water Loss Control**

| 2009  |     |          |
|---|-----|----------|
| Compile Standard Water Audit using AWWA Software?   | Yes | On Track |
| AWWA file provided to CUWCC?  | yes | On Track |
| AWWA Water Audit Validity Score?  | 71  |          |
| Completed Training in AWWA Audit Method?  | yes |          |
| Completed Training in Component Analysis Process?   | Yes |          |
| Complete Component Analysis?  | No  |          |
| Repaired all leaks and breaks to the extent cost effective?   | Yes | On Track |
| Locate and repair unreported leaks to the extent cost effective.  | yes | On Track |
| Maintain a record-keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair. |     |          |

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No  
Info only until 2012

Info only until 2012

Info only until 2012

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

Info only until 2012

| 2010  |     |          |
|---|-----|----------|
| Compile Standard Water Audit using AWWA Software?   | Yes | On Track |
| AWWA file provided to CUWCC?  | yes | On Track |
| AWWA Water Audit Validity Score?  | 82  |          |
| Completed Training in AWWA Audit Method?  | yes |          |
| Completed Training in Component Analysis Process?   | Yes |          |
| Complete Component Analysis?  | Yes |          |
| Repaired all leaks and breaks to the extent cost effective?   | Yes | On Track |
| Locate and repair unreported leaks to the extent cost effective.  | yes | On Track |
| Maintain a record-keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair. |     |          |

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No  
Info only until 2012

Info only until 2012

Info only until 2012

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

Info only until 2012

Agency: **Camrosa Water District**

District Name: **Camrosa Water District**

CUWCC Unit #: **35**

Retail

Provided 7 types of Water Loss Control Info

|                   |                   |                          |                   |                    |                       |                |
|-------------------|-------------------|--------------------------|-------------------|--------------------|-----------------------|----------------|
| Leaks<br>Repaired | Value Real Losses | Value Apparent<br>Losses | Miles<br>Surveyed | Press<br>Reduction | Cost of Interventions | Water<br>Saved |
| 0                 | \$ -              | \$ -                     | 0                 | Off                | \$ -                  | 0              |

Info only until 2012

Agency: **Camrosa Water District**  
Retail

District Name: **Camrosa Water District**

CUWCC Unit #: **35**



## CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

### Foundation Best Management Practices for Urban Water Efficiency

#### 1.3 METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

If signed MOU prior to 31 Dec 1997, On Track if all connections metered; If signed after 31 Dec 1997, complete meter installations by 1 July 2012 or within 6 yrs of signing and 20% biannual reduction of unmetered connections.

|   | 2009 |          | 2010 |  |
|---|------|----------|------|--|
| Exemption or 'At least as Effective As' accepted by CUWCC   |      |          |      |  |
| Numbered Unmetered Accounts <b>2008</b>   | 0    | On Track | 0    | On Track<br>On Track if no unmetered accounts  |
| Metered Accounts billed by volume of use  | Yes  | On Track | Yes  | On Track<br>Volumetric billing required for all connections on same schedule as metering |
| Number of CII accounts with Mixed Use meters  | 46   |          | 46   | Info only  |
| Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? | No   |          | No   | Info Only  |
| Feasibility Study provided to CUWCC?  | Yes  | On Track | No   | On Track<br>On Track if Yes, Not on Track if No  |
| Completed a written plan, policy or program to test, repair and replace meters  | Yes  | On Track | Yes  | On Track<br>On Track if Yes, Not on Track if No  |



## CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

### Foundation Best Management Practices for Urban Water Efficiency

Agency: **Camrosa Water District**  
Retail

District Name: **Camrosa Water District**

CUWCC Unit #: **35**

Primary Contact: **Tamara Sexton**

Email: **tamaras@camrosa.com**

#### 1.4 Retail Conservation Pricing

##### Metered Water Rate Structure

On Track if: Increasing Block, Uniform,  
Allocation, Standby Service; Not on Track if  
otherwise

| Customer Class       | 2009 Rate Type   | Conserving Rate? | Customer Class       | 2010 Rate Type            | Conserving Rate? |
|----------------------|------------------|------------------|----------------------|---------------------------|------------------|
| Single-Family        | Increasing Block | Yes              | Single-Family        | Increasing Block          | Yes              |
| Multi-Family         | Increasing Block | Yes              | Multi-Family         | Increasing Block          | Yes              |
| Commercial           | Increasing Block | Yes              | Commercial           | Increasing Block          | Yes              |
| Institutional        | Increasing Block | Yes              | Institutional        | Increasing Block Seasonal | Yes              |
| Dedicated Irrigation | Increasing Block | Yes              | Dedicated Irrigation | Increasing Block Seasonal | Yes              |
| On Track             |                  |                  | On Track             |                           |                  |

Year Volumetric Rates began for Agencies with some Unmetered  
Accounts

Info only

Agencies with Partially Metered Service Areas: If signed MOU prior to 31 Dec. 1997, implementation starts no later than 1 July 2010. If signed MOU after 31 Dec. 1997, implementation starts no later than 1 July 2013, or within seven years of signing the MOU,



Agency: **Camrosa Water District**  
Retail

District Name: **Camrosa Water District**

CUWCC Unit #: **35**



## CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

### Foundation Best Management Practices for Urban Water Efficiency

#### Adequacy of Volumetric Rates) for Agencies with No Unmetered Accounts

| Customer Class                       | 2009 Rate Type   | 2009 Volumetric Revenues \$1000s | 2010 Rate Type | 2010 Volumetric Revenues \$1000s |
|--------------------------------------|------------------|----------------------------------|----------------|----------------------------------|
| Single-Family                        | Increasing Block | \$ 4,652                         | Single-Family  | \$ 4,971                         |
| Multi-Family                         |                  | \$ 460                           |                | \$ 377                           |
| Commercial                           |                  | \$ 602                           |                | \$ 635                           |
| Institutional                        |                  | \$ 411                           |                | \$ 449                           |
| Dedicated Irrigation                 |                  | \$ 823                           |                | \$ 1,051                         |
| Fire Lines                           |                  | \$ 0                             |                | \$ 2,317                         |
| Agricultural                         |                  | \$ 2,353                         |                | \$ 5                             |
|                                      |                  |                                  |                |                                  |
| Total Revenue Commodity Charges (V): |                  | \$ 9,302                         | \$ 9,805       |                                  |
| Total Revenue Fixed Charges (M):     |                  | \$ 1,243                         | \$ 1,490       |                                  |
| Calculate: V / (V + M):              |                  | 88%                              | 87%            |                                  |
|                                      |                  | On Track                         | On Track       |                                  |

Agency Choices for rates:

A) Agencies signing MOU prior to 13 June2007, implementation starts 1 July2007: On Track if  $(V / (V + M)) \geq 70\% \times .8 = 56\%$  for 2009 and  $70\% \times 0.90 = 63\%$  for 2010; Not on track if  $(V / (V + M)) < 70\%$ ;

B) Use Canadian model.

Canadian Water & Wastewater Rate Design Model  
Used and Provided to CUWCC  
If Canadian Model is used, was 1 year or 3 year  
period applied?

**No**

**No**

Agencies signing MOU  
after 13June2007,  
implementation starts  
July 1 of year following  
signing.

Agency: **Camrosa Water District**  
Retail

District Name: **Camrosa Water District**

CUWCC Unit #: **35**



**CUWCC BMP RETAIL COVERAGE REPORT 2009-2010**  
**Foundation Best Management Practices for Urban Water Efficiency**

**Wastewater Rates**

Does Agency Provide Sewer Service?

**2009**  
**yes**

If 'No', then wastewater rate info not required.

**2010**  
**Yes**

| Customer Class | 2009 Rate Type      | Conserving Rate? | Customer Class | 2010 Rate Type      | Conserving Rate? |
|----------------|---------------------|------------------|----------------|---------------------|------------------|
| Other          | Non-Volumetric Flat | No               | Other          |                     |                  |
| Other          |                     |                  |                |                     |                  |
| Other          |                     |                  |                |                     |                  |
| Other          |                     |                  |                |                     |                  |
| Other          |                     |                  |                | Non-Volumetric Flat | No               |
| Not on Track   |                     |                  | Not on Track   |                     |                  |

On Track if: 'Increasing Block', 'Uniform', 'based on long term marginal cost' or 'next unit of capacity'



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Agency: **Camrosa Water District** District Name: **Camrosa Water District** CUWCC Unit #: **35**  
Coverage Report Date: **May 19, 2011**  
Primary Contact **Tamara Sexton** Telephone **#N/A** Email: **tamaras@camrosa.com**

BMP 2. EDUCATION PROGRAMS

BMP 2.1 Public Outreach Actions Implemented and Reported to CUWCC

- 1) Contacts with the public (minimum = 4 times per year)
- 2) Water supplier contacts with media (minimum = 4 times per year, i.e., at least quarterly).
- 3) An actively maintained website that is updated regularly (minimum = 4 times per year, i.e., at least quarterly).
- 4) Description of materials used to meet minimum requirement.
- 5) Annual budget for public outreach program.
- 6) Description of all other outreach programs

| 2009   | 2010   |
|--|--|
| 5  | 3  |
| 4  | 4  |
| Yes  | yes  |
| Newsletter articles on conservation Website<br>Newsletter articles on conservation<br>Select a public contact<br>News releases<br>Select a type of media contact<br>Select a type of media contact<br>Select a type of media contact | Newsletter articles on conservation Website<br>Newsletter articles on conservation<br>Select a public contact<br>News releases<br>Select a type of media contact<br>Select a type of media contact<br>Select a type of media contact |
| \$ 137,950   | \$ 164,200   |
| Description is too large for text area. Data will be stored in the BMP Reporting database when online.   | Description is too large for text area. Data will be stored in the BMP Reporting database when online.   |
| OnTrackfor 5 Actions   | OnTrackfor 5 Actions   |

All 6 action types implemented and reported to CUWCC to be 'On Track')

Agency: **Camrosa Water District**

District Name: **Camrosa Water District**

CUWCC Unit #: **35**

Coverage Report Date: **May 19, 2011**



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

2.2 School Education Programs Implemented and Reported to CUWCC

|   | 2009   | 2010   |  |
|---|--|--|--|
| Does a wholesale agency implement School Education Programs for this unility's benefit?   | Yes  | Yes  |  |
| Name of Wholesale Supplier?   | Calleguas Municipal Water District, Metropolitan Water District of Southern  | Calleguas Municipal Water District, Metropolitan Water District  |  |
| 1) Curriculum materials developed and/or provided by agency                               | Admiral Splash & All About Water. These materials contain experiments & activities in water quality, water distribution, water resources, earth science and the water cycle.     | Project WET  | Yes/ No  |
| 2) Materials meet state education framework requirements and are grade-level appropriate? | Yes  | Yes  | All 5 actions types implemented and reported to CUWCC to be 'On Track' |
| 3) Materials Distributed to K-6?  | yes  | Yes  |  |
| Describe K-6 Materials  | "Admiral Splash" & "All About Water". These materials contain experiments & activities in water quality, water distribution, water resources, earth science and the water cycle. | "Admiral Splash" & "All About Water". These materials contain experiments & activities in water quality, water distribution, water resources, earth science and the water cycle. | Describe materials to meet minimum requirements                        |
| Materials distributed to 7-12 students?   | No   | No   | Info Only  |
| 4) Annual budget for school education program.  | \$ 4,300   | \$ 3,000   |  |
| 5) Description of all other water supplier education programs                             |  |  | 0  |
|   | See Wholesale Report<br>0<br>On Track  | See Wholesale Report<br>1<br>On Track  |  |

**DEPARTMENT OF WATER RESOURCES**

1416 NINTH STREET, P.O. BOX 942836  
SACRAMENTO, CA 94236-0001  
(916) 653-5791



December 24, 2010

Ms. Tamara Sexton  
Business Services Manager  
Camrosa Water District  
7385 Santa Rosa Road  
Camarillo, California 93012-9284

Dear Ms. Sexton:

The Department of Water Resources (DWR) has reviewed the Camrosa Water District's (CWD) Self-Certification Statement – Tables 1 and 2 submitted on December 6, 2010, regarding implementation of the Urban Best Management Practices (BMPs).

The purpose of DWR's review is to determine eligibility of CWD to receive water management grant or loan funds. DWR has followed the *Draft AB 1420 Compliance Requirements* dated June 1, 2009. For detailed information, please visit <http://www.water.ca.gov/wateruseefficiency/finance/>.

Based on DWR's review of the information in Tables 1 and 2, CWD has and is currently implementing the BMPs consistent with AB 1420 and, therefore, is eligible to receive water management grant or loan funds.

DWR reserves the right to request additional information and documentation, including reports from CWD to substantiate the accuracy of the information provided in Tables 1 and 2. DWR may reverse or modify its eligibility determination and notify you and the funding agency if inaccuracies are found in the supporting documentation or in Tables 1 and 2.

If you have any questions, please contact me at (916) 651-7025 or Jodi Evans at (916) 651-7026.

Sincerely,

A handwritten signature in black ink, appearing to read "Fethi BenJemaa".

Fethi BenJemaa  
Ag Water Use Efficiency Section Chief

**APPENDIX C. Camrosa Water District Ordinance 40-10**

- CWD Ordinance 40-10 – Rules and Regulations Governing the Provision of Water and Sanitary Services (Adopted April 7, 2010)
  - Also submitted electronically



## **Ordinance 40-10**

### **Rules and Regulations**

**Governing  
The Provision of**

**Water and Sanitary Services**

**Adopted:**

**April 7, 2010**



**ORDINANCE 40-10**

**An Ordinance of the Camrosa Water District**

**Repealing Ordinance 40-09B**

**And Establishing Rules and Regulations**

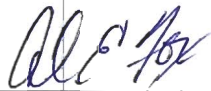
**Governing the Provision of**

**Water and Sanitary Services**

The Board of Directors of the Camrosa Water District do ordain as follows on pages 2 through 28, attached:

By Motion of Director \_\_\_\_\_, Second by Director \_\_\_\_\_, this ordinance is

**ADOPTED, SIGNED, AND APPROVED** this April 7, 2010



\_\_\_\_\_  
Al E. Fox, President  
Board of Directors  
CAMROSA WATER DISTRICT

ATTEST:



\_\_\_\_\_  
Frank E. Royer, Secretary  
Board of Directors  
CAMROSA WATER DISTRICT

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## **Camrosa Water District Rules and Regulations Governing Water and Sanitary Services**

### **1. PURPOSE**

The purpose of this ordinance is to establish the terms and conditions of Camrosa's Water and Sanitary Services. These terms and conditions are intended to both assure the individual "Customer" of fair and equitable service and protect the community Camrosa serves from the undue exposure to liability. Water, Sewer, Non-Potable Surface Water and Recycled Water service shall be available only in accordance with the Rules and Regulations contained herein and in conformance with applicable federal, state and local statutes, ordinances, regulations and contracts.

### **2. GENERAL**

Water and sanitary service by Camrosa Water District is subject to the availability of facilities, adequate capacity of facilities and compliance with the terms and conditions herein set forth or as may be augmented and set forth in any agreement or permit issued by the District.

### **3. DEFINITIONS**

"Acre Foot of Water" shall mean for the purposes of this Ordinance 43,560 cubic feet of water, which is equal to 435.6 Units or 325,851 gallons of water.

"Customer" shall mean the applicant of record for water service.

"Certified Backflow Device" shall mean for the purposes of this Ordinance equipment, with proper and current certification, designed to prevent the reverse flow of customer's system into district system.

"Cross-connection" shall mean any unprotected connection between any part of a water system used or intended to supply water for drinking purposes and any source or system containing water or substance that is not or cannot be approved as safe, wholesome, and potable for human consumption.

"Non-Potable Water" shall mean for the purposes of this Ordinance ground water or surface water which is intended for use as irrigation water and other accepted uses for which "Potable Water" is not required.

"Non-Potable Irrigation System" shall mean for the purposes of this Ordinance the transmission and distribution piping and appurtenances, which transport Non-Potable Irrigation Water.

"Potable Water" shall mean for the purposes of this Ordinance water, which is intended for all general uses including human consumption, and therefore, water that meets all primary drinking water standards set forth by the California Department of Public Health.

"Potable Water System" shall mean for the purposes of this Ordinance the transmission and distribution piping and appurtenances, which transport "Potable Water" from the various "Potable Water" sources to the "Customer".

"Pressure Zones" shall mean for the purposes of this Ordinance subdivisions within the "Potable Water" System, the "Non-Potable Irrigation System", and the "Recycled Irrigation Water System", which are hydraulically isolated from the main distribution system and have their own unique hydraulic characteristics and associated energy requirements for delivery.

"Property" shall mean a parcel of land assigned a separate assessors parcel number by the County of Ventura.

"Recycled Water" shall mean for the purposes of this Ordinance, water that is a direct product of a wastewater treatment plant and, therefore, water which is regulated by the State of California as recycled water.

"Recycled Secondary Treated Water" shall mean recycled water that has been oxidized and disinfected so that the median concentration of total coliform bacteria in the disinfected effluent does not exceed a Most Probable Number (MPN) 23 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed, and the number of total coliform bacteria does not exceed an MPN of 240 per 100 milliliters in more than one sample in any 30 day period.

"Recycled Tertiary Treated Water" shall mean filtered and subsequently disinfected wastewater using a chlorine disinfection process following filtration that provides a contact time (CT) value of not less than 450 milligram-minutes per liter at all times with modal contact time of at least 90 minutes, based on peak dry weather design flow and a median concentration of total coliform bacteria measured in the disinfected effluent that does not exceed an MPN of 2.2. per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacterial does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacterial per 100 milliliters.

"Recycled Irrigation Water System" shall mean for the purposes of this Ordinance the transmission and distribution piping and appurtenances, which transport effluent water from the Camrosa Water Reclamation Facility.

"Surplus Water" shall mean for the purposes of this Ordinance water in excess of the current water demands within the boundaries of the district as determined by Camrosa Water District.

"Unit of Water" shall mean for the purposes of this Ordinance one hundred cubic feet of water, which is equal to 748 gallons.

**SECTION 1 - WATER SERVICE****4. ELIGIBILITY FOR WATER SERVICE**

Camrosa provides both Potable and Non-Potable Water Service for all indoor and outdoor uses to "Properties" within the District. To be eligible for Water Service the "Customer" shall satisfy both the General Requirements of Water Service and the requirements of the Type and Classification of Water Service listed below.

The District shall devote its best efforts to plan for and, on a case by case basis if necessary, prioritize provision of water services to proposed lower income housing developments pursuant to Government Code Section 65589.7.

Development projects that include lower income housing units shall not be denied approval of an application for service, nor shall conditions be imposed thereon or services reduced which are applied for, unless the District makes specific written findings that the denial, condition or reduction is necessary due to the existence of one or more of the following:

- a. Insufficient water supply or insufficient water treatment or distribution capacity
- b. A State Department of Public Health order prohibiting new water connections;
- c. The proposed development applicant has failed to agree to reasonable terms and conditions.

The District shall not discriminate in any manner when processing and considering requests for services by proposed developments that include lower income housing units.

**4.1. General Requirements of Water Service**

The "Property" to be served shall be within the Camrosa Water District boundaries. The "Property" shall have an established water connection with a Camrosa water meter of adequate size and capacity, as determined by Camrosa, to serve the "Property's" water needs without causing undue wear to the Camrosa metering facilities or interfere with Camrosa's ability to provide reliable service to other "Properties". The "Customer" shall have completed and submitted an application for water service, paid any deposit that may be required as defined in the "Schedule of Rates, Fees and Charges for Water and Sanitary Services". The "Property" shall be free of any delinquent fees and charges from prior accounts established to serve the "Property" and the current "Customer" must establish and maintain an active water service account with Camrosa that is current, free of any delinquent fees and charges.

**4.2. Types and Classifications of Water Service**

Camrosa provides three types of water service: "Potable" water service, "Non-Potable" water service, and "Recycled" water service. For each type of water service, Camrosa provides water based upon service classification. Specific terms and requirements for water service are based upon the type and classification of the "Customer's" intended water use. Failure to continuously comply with any requirement for water service may result in re-classification of the service and/or termination of service.



#### **4.2.1. “Potable” Water Service**

Camrosa provides “Potable Water” Service for all indoor and outdoor uses. To be eligible for “Potable Water” Service the “Customer” shall satisfy both the *General Requirements of Water Service* contained in Section 4.1 and the requirements of the classification of water use.

##### **4.2.1.1. Municipal Water Service Classifications**

Municipal Water Service is water service, which is intended to meet long-term “potable” water needs. It is considered uninterrupted service and, accordingly, must meet “Camrosa Water District Will Serve Policy” requirements.

###### **4.2.1.1.1. *Residential Water Service Class I***

Residential Water Service - Class I is intended for all general uses both indoor and outdoor. To be eligible for Residential Water Service - Class I the “Property” served must include a dwelling or other structure suitable for occupancy, meet all the general requirements of “Potable Water” service, and have an approved application for “Potable Water” service on record.

###### **4.2.1.1.2. *Master Metered Residential Service Class II***

Master Metered Residential Service – Class II is intended for all general uses both indoor and outdoor. To be eligible for Master Metered Residential Service the “Property” served must include multiple dwelling units, have a common plumbing system, managed by a formal homeowners association and have water service provided through one or more meters serving the common water system. The “Property” served must meet all the general requirements of “Potable Water” service, and have an approved application for “Potable Water” service on record. In addition, because it is the policy of the Camrosa Water District to encourage wherever practicable the metering of individual residential units, the property must secure the approval of the General Manager in the “Will Serve” process to qualify for Master Metered Service. Camrosa may require a backflow device be installed in order to qualify for this classification.

###### **4.2.1.1.3. *Commercial and Industrial Water Service Class III***

Commercial and Industrial Water Service – Class III is intended for all general uses both indoor and outdoor for the purpose of providing service to privately operated services, manufacturing, or other business activities. To be eligible for Commercial and Industrial Water Service the “Property” served must possess an active conditional use permit, business license, or other evidence that the local land use jurisdiction recognizes the operation as a commercial or industrial enterprise. The primary water use must be a use other than irrigation. The “Property” must also meet all the general requirements of “Potable Water” service, have a certified backflow prevention device at the meter service, and have an approved application for Commercial and Industrial Water Service on record.

**4.2.1.1.4. Public Water Service Class IV**

Public Water Service – Class IV is intended for all general uses both indoor and outdoor for public services, such as public schools, recreation facilities, hospitals, government administrative services, and public safety services. To be eligible for Public Water Service the “Property” served must be publicly operated, exempt from property tax, and the primary water use must be a use other than landscape irrigation. The “Property” must also meet all the general requirements of “Potable Water” service, have a certified backflow prevention device at the meter service, and have an approved application for “Potable Water” service on record.

**4.2.1.1.5. Municipal Irrigation Water Service Class V**

Municipal Irrigation Water Service – Class V is intended for all general landscape irrigation needs where the primary use of water is to maintain large turf areas and other landscape for parks, golf courses, common areas, medians, open spaces and similar uses. To be eligible for Municipal Irrigation Water Service the “Property” served must meet all the general requirements of “Potable Water” service, have a certified backflow prevention device at the meter service, and have an approved application for “Potable Water” service on record.

**4.2.1.1.6. Fire Service Class VI**

Fire Service – Class VI is intended to provide water for private fire flow needs either within a private complex to which Camrosa does not provide public fire hydrants or for supplementary indoor fire flows. To be eligible for Fire Service the “Property” serviced must maintain a separate and isolated fire service water system and, rather than a conventional water meter, the service must include a fire flow detector meter that will detect the use of water on the fire flow system. Use of water through the fire flow system for other than fire protection shall disqualify the service from fire service classification and require compliance with a conventionally metered municipal service classification. The “Property” must also meet the general requirements of “Potable Water” service, have a certified backflow prevention device at the meter service, and have an approved application for “Potable Water” service on record.

**4.2.1.2. Agricultural Water Service Classifications**

Agricultural Water Service is a class of service intended to serve commercial agriculture. This service, unlike Municipal Water Service is interruptible. Agricultural services may be interrupted for extended periods as a result of general water shortages, drought, maintenance requirements, and operational requirements. Agricultural Water Service may not be promptly restored following emergencies. Therefore, Agricultural service shall not be eligible for conversion to the Municipal Service without satisfying all “Will Serve” requirements as set forth in the “Camrosa Water District Will Serve Water Policy”.

**4.2.1.2.1. Agricultural Irrigation Water Service**

Agricultural Irrigation Water Service is intended for commercial agricultural properties, which raise food crops, floral crops, nursery crops, or commercial livestock. It is not the intent of this ordinance to classify home gardens, home orchards, or pets as agricultural operations. To be eligible for Agricultural Irrigation Water Service the

"Property" must include a minimum of one full contiguous, irrigated acre dedicated to commercial agriculture. The "Property" must meet all the general requirements of "Potable Water" service and have a certified backflow prevention device at the meter service.

#### ***4.2.1.2.2. Domestic Agricultural Water Service***

Domestic Agricultural Water Service is intended for commercial agricultural properties, which raise food crops, floral crops, nursery crops, and commercial livestock where the "Property" includes a dwelling or dwellings in which the residential water requirements are incidental to the agricultural operation. It is not the intent of this ordinance to classify home gardens, home orchards, or pets as agricultural operations. To be eligible for Domestic Agricultural Water Service the "Property" must include a minimum of one full, contiguous, irrigated acre dedicated to commercial agriculture. The "Property" must meet all the general requirements of "Potable Water" service, have a certified backflow prevention device at the meter service, and comply with all "Will Serve" requirements as set forth in the "Camrosa Water District Will Serve Water Policy".

#### **4.2.1.3. Temporary Service**

Temporary Water Service is service intended for "Customers" having short-term water use needs.

##### ***4.2.1.3.1. Temporary Construction Water***

Construction water is intended for "Customers" that may need water for dust abatement, general construction site use, and other construction related needs. The "Property" shall meet all the general requirements of "Potable Water" service; a site, approved by Camrosa, shall be specified for installation of a Temporary Meter Service; the temporary meter installed; suitable backflow prevention techniques, approved by Camrosa, are employed and the "Customer" shall have completed and submitted an application for Construction Water Service. Construction Water Service shall be for a term no longer than six (6) consecutive months. The General Manager may authorize longer terms on a case-by-case basis.

##### ***4.2.1.3.2. Temporary Municipal Water***

Temporary Municipal Water is intended for "Customer's" having a short term need for "Potable Water" service. Examples of such short-term needs are special events, community sponsored functions, which may require water service for a period not to exceed 30 days. The General Manager, on a case-by-case basis, shall determine the requirements and conditions of such service and may authorize longer terms on a case-by-case basis.

##### ***4.2.1.3.3. Temporary Agricultural Water***

Temporary Agricultural Water Service is intended to provide short-term water service to agriculture operations, which do not have service to the "Property" and require water to supplement the primary water source for a term not to exceed one (1) year.

**4.2.1.3.4. *Temporary Contractual Water***

The Board of Directors may, from time to time, authorize water service on a temporary basis for a term and under conditions set forth by special contract.

**4.2.1.4. Emergency Water Service**

Emergency Water Service is intended to provide water for the protection of the health, safety and/or property for a "Property" or "Customer" unable to satisfy the requirements and conditions of "Potable Water" service. Emergency service may be provided only after Camrosa has received a complete application for Emergency Water Service from a "Customer" for a specific "Property", has determined that the situation warrants an emergency determination and all fees and charges have been paid. Camrosa shall determine any additional terms and conditions as established in the Camrosa "Schedule of Rates, Fees and Charges for Water and Sanitary Services".

**4.2.1.5. Surplus Water - Out of boundary service**

Surplus water may be served for any useful purpose outside the boundaries of the District by special agreement as authorized by the Board of Directors.

**4.2.2. "Non-Potable Water" Service**

Camrosa provides "Non-Potable Water" for a variety of irrigation, industrial, and commercial purposes. All non-potable service is interruptible due to non-availability of water, system maintenance requirements or operational requirements. To be eligible for "Non-Potable Water" Service the "Customer" shall satisfy the *General Requirements of Water Service* contained in Section 4.1, the "Property" to be served must either have no potable service or have a certified backflow prevention device on the potable service and a separate non-potable plumbing system with no existing or potential cross-connections. "Customers" must have a beneficial use for "Non-potable Water" approved by Camrosa and meet the requirements of the specific "Non-potable Water" classification of water use.

**4.2.2.1. "Non-Potable Water" Classifications**

The following outlines the classifications of non-potable service available from Camrosa Water District. Qualifications and requirements for use of "Non-potable Water" by individual residents may require State or County Department of Public Health prior approval before Camrosa may provide service. In addition, State or County Departments of Public Health or Camrosa may require periodic inspections of privately operated Non-Potable Irrigation Systems to assure that no cross-connections exist.

**4.2.2.1.1. *Commercial Agricultural - Class I***

Commercial Agricultural - Class I is intended for general irrigation purposes on lands requiring water to irrigate commercial crops. To receive water under this classification, the lands must be primarily used for production of commercial crops.

**4.2.2.1.2. Landscape Irrigation - Class II**

Landscape Irrigation - Class II is intended for commercial operations, public landscaping such as public parks, medians, playing fields and schools, and common-area landscaping needs of homeowners associations where large amounts of irrigation water are needed to maintain turf areas or other landscaping. To qualify for this class, the property must have access to the non-potable water system, have an approved backflow prevention device, must be free of any cross-connections between the potable and non-potable systems and must be primarily in turf or other high-water-demand landscaping.

**4.2.2.1.3. Residential Landscaping - Class III**

Residential Landscaping – Class III is intended for irrigation of landscape, gardens, orchards and other appropriate outdoor water uses. To be eligible for Non-potable Residential Water service the property served must have access to the non-potable water system, have an approved backflow prevention device owned and maintained by the district on the potable water service to the property, the property must be free of any cross-connections between the potable and non-potable systems, meet all the general requirements of non-potable water service, have an approved application for non-potable water service on record and have paid all applicable fees and charges for non-potable water service.

**4.2.2.1.4. Temporary Construction Water – Class IV**

Temporary Construction Water - Class IV is intended for uses related to general construction such as dust abatement, compaction, and roadway cleaning. To be eligible for Class IV Non-Potable service a construction site must (1) have access to a non-potable water supply; (2) be permitted by Camrosa for use of “Non-potable Water”; (3) the “Customer” shall make deposits and pay any special fees and charges as established by the Board of Directors; and (4) “Customer” shall agree to comply with all State and County Department of Public Health requirements for uses of “Non-potable Water”.

**4.2.2.1.5. Commercial Agricultural – Class VI**

The District has entered into separate agreements for delivery of non-potable water and may again enter into such agreements. This class is intended for lands requiring large amounts of water to irrigate commercial crops and have contractual commitments with Camrosa for long-term Non-Potable Irrigation Water Service. Minimum requirements for Class I service are: (1a) the parcel served is a minimum of 20 acres; or (1b) the parcel is joined with a larger parcel totaling 20 acres and is considered part of the larger parcel's operation as determined by Camrosa; (2) the lands are primarily used for production of commercial crops; (3) the owner of the land has endorsed, submitted, and secured approval of a Non-Potable Irrigation Service Agreement with Camrosa Water District on or before December 31, 1994.

#### **4.2.3. “Recycled Water” Service**

Camrosa provides “Recycled Water” for a variety of irrigation, industrial, and commercial purposes. The “Customer” must have a beneficial use for “Recycled Water” and meet the requirements of the specific “Recycled Water” use classification of water. To be eligible for “Recycled Water” Service the “Customer” shall satisfy the following; (1) the *General Requirements of Water Service* contained in Section 4.1 above; (2) have available and agree to operate an approved Recycled Water Facility in accordance Ordinance with 41-10 – “Standards for Maintenance and Operation of Recycled Water Facilities”; and (3) execute (or receive an executed copy from the landowner) an approved “Recycled Water Use Agreement” with Camrosa Water District.

##### **4.2.3.1. “Recycled Water” Service Classifications**

The following outlines the classifications of non-potable service available from Camrosa Water District. Qualifications and requirements for use of “Non-potable Water” by individual residents may require State or County Department of Public Health prior approval before Camrosa may provide service. In addition, State or County Departments of Public Health or Camrosa may require periodic inspections of privately operated Non-Potable Irrigation Systems to assure that no cross connections exist.

###### ***4.2.3.1.1. Commercial Agricultural - Class I***

Commercial Agricultural – Class I is intended for lands requiring large amounts of water for irrigation of commercial crops. The water served under this class is “Recycled Tertiary Treated Water”, therefore, qualifying for use under minimum restrictions. To receive water under this classification, the lands must be primarily used for production of commercial crops

###### ***4.2.3.1.2. Landscape Irrigation Water – Class II***

Landscape Irrigation Water - Class II is intended for parks, golf courses, and other large irrigated turf areas. The water provided under this class is “Recycled Tertiary Treated Water”, therefore, qualifying for use under minimum restrictions. Minimum requirements are: (1) the land to be served is primarily used for recreational, decorative, or other purposes where large amounts of irrigated turf are required; (2) the land to be served is posted in accordance with Department of Public Health regulations for use of “Recycled Water” in areas open to the general public.

###### ***4.2.3.1.3. Limited-use Commercial Agricultural Water - Class III***

Limited-use Commercial Agricultural Water - Class III is intended for the irrigation of commercial crops with restrictions on the method of irrigation or crop type as imposed by the Department of Public Health. The water provided is “Recycled Secondary Treated Water” therefore, its uses are restricted.

To receive water under this classification, the lands must be primarily used for production of commercial crops and must meet the requirements set forth in the most current “Camrosa Water District Commercial Agricultural Policy”.

**4.2.3.1.4. Commercial Agriculture Class IV**

Commercial Agriculture - Class IV is intended for lands requiring large amounts of water for commercial crops and contractual commitments with Camrosa for long-term "Recycled Water" Service. The water provided under this class is "Recycled Tertiary Treated Water", therefore, qualifying for use under minimum restrictions. To be eligible for Class IV service, the land to be served must be used primarily for the production of commercial crops and the owner of the land has endorsed, submitted, and secured approval of a "Recycled Water" Service Agreement with Camrosa Water District on or before December 31, 1994.

**5. CONDITIONS OF WATER SERVICE**

In addition to the general requirements for water service contained in this ordinance, properties with water service agree, upon receiving service, to the conditions contained in this ordinance as it may be amended from time to time by the Camrosa Water District Board of Directors. Failure to meet the conditions contained herein may result in termination of service.

**5.1. Cross-Connection Control**

The "Customer" shall be responsible for the prevention of cross-connections of the "Customer's" system with sources of potential contamination. Any "Customer" that has an alternate source of water to the "Property" served by Camrosa regardless of classification shall maintain the water systems separately and shall maintain a certified backflow prevention device at the "Property's" potable water service meter. At the discretion of the District, Camrosa may require the installation of a backflow device on any service provided by the District. "Customer" required to maintain backflow prevention equipment shall certify the equipment annually except in those instances where the backflow prevention devices are maintained by Camrosa as part of the monthly service fee. In those instances, Camrosa shall test and certify the equipment annually.

**5.2. Water Pressure and Surges**

Camrosa is not responsible for damages resulting from pressure variations or surges. It is the responsibility of the "Customer" to protect the "Property" from variations in water system pressure and water system surges. The "Customer" shall not operate the "Property's" system in a manner, which may cause surges to the Camrosa water system.

**5.3. Water Leaks**

Camrosa is not responsible for water losses due to leaks in the "Property's" water system. The "Customer" shall maintain the "Property's" water system to avoid leaks and shall repair leaks promptly.

**5.4. Meters, Metering Facilities and Hydrants**

The meter and the metering facility are the property of the Camrosa Water District. The outlet, outlet valve and any piping and equipment on the outlet side of the meter are the full responsibility of the "Customer". All water that passes through the meter is the responsibility of the "Customer".



**5.4.1. Meter Testing**

Any customer may demand that the meter through which potable, Non-Potable surface water or recycled water is being furnished be examined and tested by the District for the purpose of ascertaining whether or not it is correctly registering the amount of water being delivered through it. Such demand shall be in writing and shall be accompanied by a deposit equal to the charge for testing as determined by the District. Upon receipt of such demand and deposit, the District will have the meter examined and tested and, if upon such test the meter shall be found to register over two percent (2%) more water than actually passes through it, the meter shall be properly adjusted or another meter substituted therefore, the deposit shall be returned, and the water bill for the current month will be adjusted proportionately. If the meter should be found to register no more than two percent (2%) more water than actually passes through it, the deposit shall be retained by the District to offset the expense of making the test.

**5.4.2. Obstruction of or deposit of material in and around Meter Boxes or Hydrants**

No person shall place, dispose or deposit or permit the placement, disposal or deposit of oil, toxic hazardous or contaminated liquid or waste, trash, dirt building materials or other substances, objects or obstructions in on or around meter boxes or hydrants. It shall be the responsibility of each customer to prevent meter boxes, District hydrants or other District facilities from becoming obstructed or obscured by the customer's trees, shrubs plants or in any other manner so as to impede their use or access to them or make their location difficult to determine. If such substances, objects or obstructions are not cleaned or removed, or obscure or impede such facilities, the District may, after providing reasonable notice to the customer, accomplish the cleaning and removal and charge the customer for the cost of doing so.

**5.4.3. Change of Meter Location**

When the location of a meter and service is changed at the "Customer's" request, the cost of making such change will be paid for by the "Customer" in accordance with charges established in the "Schedule of Rates, Fees and Charges for Water and Sanitary Service".

**5.5. Resale of Water**

In the case where a "Customer" has established a Master Metered account for a property, or where a "Customer" is leasing their property to another and still maintains the water account for the property in the "Customer's" own name, the "Customer" shall not resell water to others at a volumetric rate higher than the District charges the "Customer". This section shall apply to all "Customers" within the District except the California State University – Channel Islands.

**5.6. Exporting Water**

The "Customer" shall not export water from the "Property" assigned service by Camrosa to any other "Property" without the written permission of Camrosa. This prohibition includes other "Property" under the same ownership.

**5.7. Water Quality****5.7.1. Potable Water**

"Potable Water" provided by Camrosa meets or exceeds all primary drinking water requirements set forth by the California Department of Public Health. Camrosa water does contain minerals that contribute to "hardness". Hardness may result in the accumulation of mineral deposits of water appliances. Camrosa is not liable for any discoloration, spotting or any other damages resulting from the mineral content of the water.

**5.7.2. Non-Potable and Recycled Water**

Non-Potable and Recycled water are not intended for human consumption. These waters may contain high levels of minerals and salts to which some plants are not tolerant. Camrosa is not responsible for any damages to crops or plants resulting from the use of water delivered by Camrosa.

**5.8. Interruptions in Service for System Maintenance**

Camrosa may interrupt service from time to time for routine maintenance, repairs, and meter testing. Camrosa is not responsible for any damages to the "Customer's" property or other losses as a result of such interruptions.

**5.9. Automatic Fire Sprinkler Service Connections**

When an automatic fire sprinkler service connection is installed, the control valve for the sprinkler system will be left closed and sealed until a written order to turn on the water is received from the "Customer". After the water is turned on, the District shall not be liable for damages of any kind that may occur on or to the premises or "Property" therein served due to the installation, maintenance or use of such service connection, or because of fluctuation of pressure or interruption of water supply. Water shall not be used through an automatic fire sprinkler service connection for any purpose other than the extinguishing of fires, or a purpose related thereto.

**5.10. Access to District-owned Facilities**

Camrosa shall have access to all District-owned meters, pipelines and appurtenant facilities at all times. No person shall willingly obstruct or prevent access to District-owned facilities.

**5.11. Right of Inspection of and Access to Customers Premises**

By accepting service from the District, the "Customer" agrees that authorized representatives of the District may, at reasonable times, enter upon the "Customer's" premises for the purpose of determining the existence, operation, maintenance, and/or use of:

1. Any plumbing or water piping which may cause, create or permit backflow, back-siphonage or any other condition affecting or likely to affect the purity and/or potability of the water supply furnished by the District;
2. Any private source of water supply which may be connected with the water supply system of the District; or,
3. Any source of pressure, vacuum, contamination, or pollution affecting or likely to affect the purity and/or potability of the water supply furnished by the District.

**5.12. Tampering with Metering Facilities**

Tampering with any Camrosa facility, which results in damages to the facilities or the loss of water by leakage or meter malfunction, may result in immediate termination of service and both civil and criminal prosecution.

**5.13. Beneficial Use of Water**

The "Customer" shall use water provided by Camrosa in any manner, which results in reasonable benefit to the "Property" or the "Customer".

**5.14. Prohibition of Water Waste**

No person shall cause or permit water under his/her control to be wasted. Willful waste of water may result in additional fees, charges and/or termination of service as directed by the Board of Directors. The following prohibitions are in effect at all times, regardless of whether any declared water supply shortage or water emergency condition is in effect:

1. Gutter Flooding - No person shall cause or permit any water furnished to any property within the District to run or to escape from any hose, pipe, valve, faucet, sprinkler or irrigation device into any gutter or to otherwise escape from the property, if such running or escaping can reasonably be prevented.
2. Leaks - No person shall permit leaks of water that he/she has the authority to eliminate. Any detected leak, break or malfunction shall be corrected within 72 hours after a person discovers or receives notice from the District.
3. Positive Hose-end Shutoff - All garden and utility hoses shall be equipped with a positive hose-end shutoff nozzle.
4. Vehicle Washdown - Vehicles, including but not limited to any automobile, truck, van, bus, motorcycle, boat or trailer shall be cleaned only by use of a hand-held bucket or a hand-held hose with a shutoff nozzle device.
5. Restaurant Equipment - Restaurants are required to use water-conserving dish washing spray valves in all food preparation and utensil cleaning areas.
6. Water Fountains and Decorative Water Features – Operating a water fountain or other decorative water feature that does not use re-circulated water is prohibited
7. Single Pass Cooling Systems - Installation of single pass cooling systems in buildings requesting new water service is prohibited.

**5.15. Reasonable Attorney Fees Paid by Customer**

In the event an action is commenced in a court of law by the District to collect any obligations incurred by the use of water or sewer service, the "Customer" shall be required to pay reasonable attorney's fees if said action is successful.

**5.16. Mandatory use of Non-Potable Surface Water or Recycled Water where Available**

Where non-potable or recycled water is available to a property served by Camrosa, the property shall utilize such water in lieu of potable water wherever practicable. Non-Potable surface water or recycled water must be used for construction purposes when available.

**5.17. Water Supply Shortage or Water Emergencies**

"Water Supply Shortage" is a condition when Camrosa Water District determines, in its sole discretion, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions. A "Water Emergency" is a condition resulting from some catastrophic event or events, which cause or threaten to cause an impairment, reduction, or severance of the district's water supply or access to its water supplies in a manner that may result in district's inability to meet ordinary water demands for potable water service. In the event of an imminent inability of the District to meet ordinary water demands for a period beyond what can reasonably be considered routine system repairs the General Manager shall report to the Board of Directors on the extent, estimated duration, cause, and estimated severity of the event or events leading to the water supply shortage or water emergency and by resolution the Board of Directors may declare a Water Supply Shortage or Water Emergency and activate one or more of the following emergency provisions of this ordinance:

**5.17.1. Stage One Water Supply Shortage or Water Emergency**

The goal of a stage one water supply shortage or water emergency declaration is a 10% potable water demand reduction to preserve water supplies for district and or the region until the emergency has ended. The district shall notify its customers via newspaper, radio, television and direct mail or by any other means determined by the district to be prudent that a Water Supply Shortage or Water Emergency has been declared and that the District is requesting all customers to reduce water use by 10%. In addition to the prohibited uses of water outlined in Section 5.14, the following water conservation requirements apply during a declared Stage One Water Supply Shortage or Water Emergency;

1. Leaks - No person may permit leaks of water that he/she has the authority to eliminate. Any detected leak, break or malfunction shall be corrected within 48 hours after a person discovers or receives notice from the District.
2. Wash-Down of Hard or Paved Surfaces – Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by with a hose equipped with a positive self-closing water shut-off device, a low-volume, high-pressure cleaning machine, or a low-volume high-pressure water broom.
3. Drinking Water Served Upon Request Only – Eating or drinking establishments, including but not limited to a restaurant, hotel, café, cafeteria, bar, or other public place where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested.

4. Limits on Watering Durations – Watering of lawns, landscape or other vegetated area with potable water is limited to non-peak demand times and only when necessary. Use of a hand held hose with positive shut-off nozzle; bucket or micro irrigation systems/equipment may be required.
5. Limits on Watering Hours - Watering or irrigating of lawn, landscape or other vegetated area with potable water may be prohibited between the hours of 9:00 a.m. and 5:00 p.m. on any day.

#### **5.17.2. Stage Two Water Supply Shortage or Water Emergency**

The goal of a stage two water supply shortage or water emergency declaration is a 20-30% reduction in potable water demands while preventing the loss of property and protecting the health and safety of the community and region. The district shall notice all of its customers via newspaper, radio, television and direct mail or by any other means determined by the district to be prudent that a Water Supply Shortage or Water Emergency has been declared and that the District is requesting customers to reduce water use. In addition to the prohibitions listed in the Stage One Water Supply Shortage or Water Emergency and the prohibited uses of water in Section 5.14 above, the following water conservation requirements to prudently preserve water supplies shall be observed;

1. Leaks - No person may permit leaks of water that he/she has the authority to eliminate. Any detected leak, break or malfunction shall be corrected within 24 hours after a person discovers or receives notice from the District.
2. Limits on Watering Days – Water or irrigating of landscape or other vegetated area with potable water may be limited to three days per week on a schedule established and posted by the District.
3. Limits on Filling Residential Swimming Pools & Spas – Use of water to fill or refill swimming pools and spas may be limited to maintain the level of water only when necessary. Draining of pools and spas or refilling shall be done only for health or safety reasons.
4. Substitution of Non-potable water - No person shall permit the outdoor use of potable water for irrigation or dust abatement where non-potable or recycled water is available.

#### **5.17.3. Stage Three Water Supply Shortage or Water Emergency**

The goal of a stage three water supply shortage or water emergency is to reduce potable water demands by 30-50% while protecting the health and safety of the community and the region. The district shall notice all of its customers via newspaper, radio, television and direct mail or by any other means determined by the district to be prudent that a Water Supply Shortage or Water Emergency has been declared and that the District is requesting customers to reduce water use. In addition to the actions and requirements of a stage two emergency and the prohibited uses of water in outlined in Section 5.14 above the following water conservation requirements to prudently preserve water supplies shall be observed;

1. Irrigation restrictions – Watering or irrigation of lawn, landscape or other vegetated area with potable water may be prohibited by the Board.
2. New Potable Water Service – No new potable water service will be provided, no new temporary meters or permanent meters will be provided and no statements of immediate ability to serve or provide potable water service will be issued, except as approved on an individual review by the District.
3. Other Prohibited Uses – The District may implement other water use requirements as determined by the District to meet water supply shortage or water emergency conditions.

#### **5.18. Declaration of Emergency Stage**

The Board of Directors may move from stage to stage as necessary to best manage the water supply shortage or water emergency. Once the water supply shortage or water emergency conditions have subsided and water supplies returned to normal the Board shall by resolution declare an end to the emergency and restore service to pre-emergency conditions.

#### **5.19. Violation of Prohibitions**

Violation of any provision of a stage one, two or three emergency may result in fees and charges prescribed in the district's schedule of rates, fees and charges. Repeated violations may result in water capacity restrictions to the property or termination of service

**SECTION 2 - FEES AND CHARGES****6. WATER SERVICES RATES, FEES, AND CHARGES**

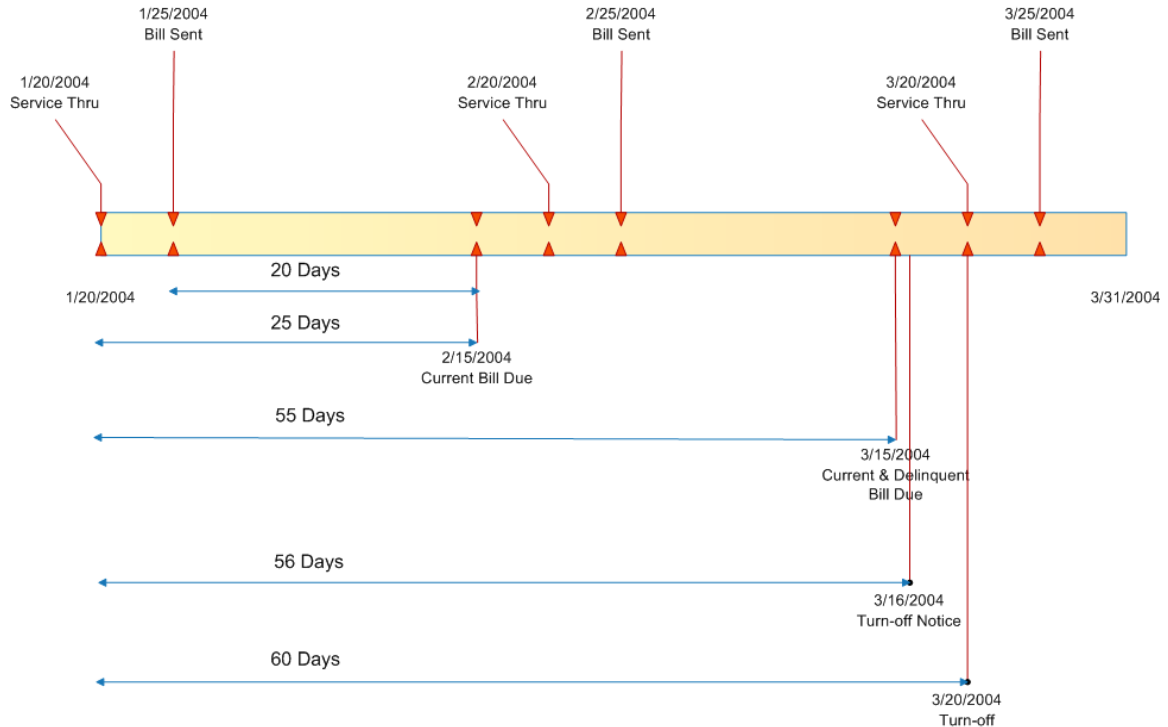
Camrosa shall establish, by Board Resolution, a "Schedule of Rates, Fees and Charges for Water and Sanitary Service" after holding a properly noticed public hearing in accordance with Government Code 53756. The schedule for services may cover a period not to exceed five years. The "Schedule of Rates, Fees and Charges for Water and Sanitary Services" may provide for automatic adjustments that pass through to the customer the adopted increases or decreases in the wholesale charge for water established by another public agency. Notice of any automatic adjustments pursuant to the schedule shall be given not less than 30 days before the effective date of the adjustment.

The "Customer" shall pay all assigned rates, fees, and charges for the type and class of service provided in the manner and within the times set forth in this Ordinance and the Camrosa Water District "Schedule of Rates, Fees and Charges for Water and Sanitary Services" as established and amended from time to time by the Camrosa Board of Directors. Failure to make timely payment may result in termination of service upon notice as may be required by law.

**6.1. Time and Manner of Payment**

All bills and charges for water, sewer, Non-Potable surface water and recycled water service shall be due and payable upon presentation and shall become delinquent if not paid by the date specified on the face thereof. Such bills and charges shall be deemed to be presented upon having been deposited in the United States Mail, postage paid, and addressed to the customer or owner reflected in the records of the District. Payments may be made in person, by mail or by electronic transfer of funds to the District.





The timeline presented above is the normal billing cycle for the District. If an amount billed is not paid within 25 days of date it is presented for payment, the amount shall be considered delinquent. If a delinquent amount is not paid within 55 days from its original date of presentment, the account shall become a candidate for termination and, following such notice and proceedings as may be required by law, the water, Non-Potable surface water and/or recycled water service to the property may be discontinued.

## 6.2. Delinquent Fees and Charges

Fees may be applied to accounts deemed delinquent. Charges may be applied for noticing the customer with a door hanger and for reconnection of service terminated as a result of delinquency, as provided for in the "Schedule of Rates, Fees and Charges for Water and Sanitary Services." The General Manager is authorized to waive the door hanger fee if, in the judgment of the General Manager, such waiver is in the best interests of the District.

## 6.3. Property Liens

If, in the judgment of the General Manager, a delinquent account has proven to be uncollectible, a lien against the property served may be established in the amount owing to the District. Reestablishment of service to the property may be withheld until the General Requirements of Water Service are met.

## 6.4. Pressure Zone Surcharges

Water Services may be subject to surcharges if the areas to be served are above the first hydraulic lift. Zone Surcharges are intended to reflect the actual cost of any additional pumping and shall be reviewed annually to assure that they reflect current costs.

**SECTION 3 - SEWER SERVICE****7. SEWER SERVICE GENERAL**

The District protects the health, welfare and safety of the local residents by constructing, operating and maintaining a system of local sewers and laterals, trunk sewers and interceptors, and liquid waste treatment and disposal facilities to serve the homes, industries and commercial establishments throughout the District and surrounding environs as required by State and Federal law.

The District shall devote its best efforts to plan for and, on a case by case basis if necessary, prioritize provision of sewer services to proposed lower income housing developments pursuant to Government Code Section 65589.7.

Development projects that include lower income housing units shall not be denied approval of an application for service, nor shall conditions be imposed thereon or services reduced which are applied for, unless the District makes specific written findings that the denial, condition or reduction is necessary due to the existence of one or more of the following:

- a. Insufficient sewer treatment or sewer collection capacity;
- b. A Regional Water Quality Control Board order prohibiting new sewer connections;
- c. The proposed development applicant has failed to agree to reasonable terms and conditions.

The District shall not discriminate in any manner when processing and considering requests for services by proposed developments that include lower income housing units.

**7.1. Sewer Service Area**

Camrosa Water District has facilities capable of providing Sanitary Service to approximately 50% of its customers. The boundaries of the existing service area are:

1. North of the 101 Freeway to Worth Way and;
2. Calleguas Creek on the West to Morongo Drive on the East.
3. California State University, Channel Islands
4. Casa Pacifica, Las Posadas, Villa Calleguas

Sanitary Service south of the 101 Freeway, and within the Camrosa Water District boundary, is provided by the City of Camarillo while Camrosa provides the Water Service. The only exceptions are listed as #3 and #4 above.

**7.2. Demarcation of Sewer Service Responsibilities****7.2.1. Demarcation of District Facilities**

For the purpose of defining the location at which District facilities end and private facilities begin, the cleanout on sewer lateral connections to private property, located either just behind the curb and gutter, or just behind the sidewalk, shall serve as the point of demarcation.

**7.2.2. Customer Responsibility**

The point of demarcation of district facilities shall not serve as the point where obstructions, causing a backup of wastewater within the lateral, cease to be the responsibility of the sewer customer. It is the responsibility of the Customer to maintain clear and free flow in the lateral from their property all the way to the District sewer main. This includes clearing obstructions caused by something flushed or dropped into the lateral or caused by root intrusion from nearby landscaping. Simply causing the obstruction to pass the demarcation point does not then place the responsibility for correction of the problem onto the District. Root intrusion caused by City or County placed trees or shrubs is, likewise, the customers responsibility to correct and then, if so inclined, to file a claim with the appropriate agency.

**7.2.3. Liability for Property Damage**

The District shall not be liable for damage to private property caused by blockage in a sewer lateral. The District may assume liability only in instances when a backup in the District sewer main causes damage to private property.

**7.3. Water Reclamation Policy**

The District is committed to a policy of wastewater reclamation and reuse in order to provide an alternate source of water supply and to reduce overall costs of wastewater treatment and disposal. The reclamation of wastewater through wastewater treatment processes may necessitate more stringent quality requirements on industrial waste discharges as the demand for Non-Potable surface water increases. Accordingly, industry is urged to seek recovery and reuse procedures to meet the limitations set in industrial waste discharges rather than those procedures designed solely to meet discharge limitations.

**7.4. Eligibility for Sewer Service**

The highest and best use of the sewerage system is the collection, treatment and reclamation or disposal of domestic sewage. Connection to the District's facilities by customers within the sewer service area is unrestricted provided the prospective customer has completed the application process, all fees have been paid, the connection meets district construction specifications and the type of discharge is not detrimental to either the collection system or the treatment process.

The use of the sewerage system for industrial waste discharges is subject to regulation by the District. The District shall retain responsibility for final regulation and control of industrial waste discharges into District facilities.

Sewage, liquid waste and industrial waste will be accepted into the sewerage system provided such wastes will not: 1) menace public health, 2) detrimentally affect the local environments, 3) create nuisances such as odors, insects, etc., 4) damage structures, 5) impose excessive collection, treatment or disposal costs on the District, 6) significantly interfere with wastewater treatment processes, 7) interfere with wastewater reclamation processes, 8) exceed quality limits and quantity requirements established by the District.

### **7.5. Regulation of Sewer Service**

The District has adopted *Camrosa Water District Industrial Waste and Sanitary Service Ordinance Regulating and Controlling Sewage Liquid Waste and Industrial Waste Discharges* (as amended from time to time) for the purpose of controlling and regulating sewage, liquid waste and industrial waste discharges directly or indirectly into the sewerage system and disposal works of the Camrosa Water District,

The Ordinance establishes the quality and quantity of discharged wastes; the degree of waste pretreatment required; the issuance of industrial wastewater discharge permits; the establishment of fees and charges; and the establishment of fees, charges, and penalties for violation.

Provisions are made within the Ordinance to regulate industrial waste discharges, to comply with State and Federal government requirements and policies, and to meet increasingly higher standards of treatment plant effluent quality and environmental considerations. The ordinance establishes quantity and quality limitations on sewage, liquid waste and industrial waste discharges where such discharges may adversely affect the sewerage system or the effluent quality. Methods of cost recovery are also established where the industrial waste discharge would impose unreasonable collection, treatment or disposal costs on the District.

*The provisions of "Camrosa Water District Industrial Waste and Sanitary Service Ordinance Regulating and Controlling Sewage Liquid Waste and Industrial Waste Discharges", as amended from time to time, are fully incorporated by reference into these rules and regulations and shall apply to the discharge of all wastes, directly or indirectly, to a public sewer of the District.*

**SECTION 4 - CONSTRUCTION SPECIFICATIONS****8. INCLUSION OF SPECIFICATIONS BY REFERENCE**

The design and construction of water, Non-Potable surface water, recycled water and sewer lines and other appurtenances within the District's service area shall comply with the published "*Requirements and Specifications for Making Application - Developing Designs and Constructing Water Facilities by Public and Private Contract for Camrosa County Water District*" and "*Rules and Regulations of Camrosa County Water District Establishing General Provisions and Specifications for Design and Construction of Sanitary Sewers and Appurtenances*".

**SECTION 5 - IMPLEMENTATION**

**9. IMPLEMENTATION AND PRIOR RULES AND REGULATIONS**

This Ordinance supersedes all prior Ordinances and Resolutions relating to rules and regulations for Potable, Non-Potable and/or "Recycled Water" Services.

**SECTION 6 – AUTHORITY FOR IMPLEMENTATION****10. DISCRETIONARY AUTHORITY PROVIDED TO THE GENERAL MANAGER**

The General Manager is provided, herein, discretionary authority to interpret this ordinance and implement its provisions. This authority includes establishment of eligibility for service, determination of the availability of facilities and capacity, determination of compliance with this ordinance, application of fees, resolution of billing disputes, and negotiation of agreements. The Camrosa Board of Directors may address unresolved disputes. The decision of the Board of Directors regarding such disputes is final.



**APPENDIX D. Draft Resolution Declaring a Water Shortage Emergency**

- A Resolution of the Board of Directors of Camrosa Water District Declaring a Water Shortage Emergency & Implementing a Water Shortage Contingency Plan (DRAFT)

*Resolution No: DRAFT*

*A Resolution of the Board of Directors  
of  
Camrosa Water District*

***Declaring a Water Shortage Emergency &  
Implementing a Water Shortage Contingency Plan***

*Whereas, due to [describe circumstances that have limited water supply, e.g. earthquake damage to critical water supply and transmission facilities], the water supply available to Camrosa Water District is reduced; and,*

*Whereas, Camrosa Water District's Ordinance 40-10, "Rules and Regulations Governing the Provision of Water and Sanitary Services," has provided procedures for the declaration and response to water shortage emergencies; and,*

*Whereas, the Board of Directors has received, and duly considered, a report on the extent, estimated duration, cause, and estimated severity of the events or events leading to the emergency; and,*

*Whereas, the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the District's water system to the extent there would be insufficient water for human consumption, sanitation, and fire protection;*

*Now, Therefore, Be It Resolved, that the Camrosa Water District Board of Directors declares a water shortage emergency condition currently prevails within the area served by the Camrosa Water District; and,*

*Be It Further Resolved that pursuant to Ordinance 40-10, Section 5.17, the Board of Directors directs the General Manager to implement Stage \_\_\_\_ emergency response ; and,*

*Be It Further Resolved that the Board of Directors adopts the emergency rates, fees, charges, and penalties, as shown in Attachment A [such rates, fees, etc. to be determined by the Board of Directors at the time of the declaration of emergency].*

*Adopted, Signed and Approved* this  $X^{\text{th}}$  day of Month, 20XX.

---

*Al E. Fox, President  
Board of Directors  
Camrosa Water District*

*ATTEST:*

---

*Richard H. Hajas, Secretary  
Board of Directors  
Camrosa Water District*

**APPENDIX E. Metropolitan Allocation Information**

TED GRANDSEN  
DIVISION 1

GAIL L. PRINGLE, DIRECTOR  
DIVISION 4

JEFFREY A. BORENSTEIN, TREASURER  
DIVISION 2



WILLIAM R. SEAVER, VICE PRESIDENT  
DIVISION 5

DONALD G. HAUSER, SECRETARY  
DIVISION 3

DONALD R. KENDALL, Ph.D., P.E.  
GENERAL MANAGER

web site: [www.calleguas.com](http://www.calleguas.com)

2100 OLSEN ROAD • THOUSAND OAKS, CALIFORNIA 91360-6800 805/526-9323 • FAX: 805/522-5730 • FAX: 805/526-3675

# Memorandum

**To:** Purveyor Managers  
**From:** Don Kendall, General Manager  
**Date:** July 13<sup>th</sup>, 2009  
**Re:** 2009/2010 Initial Allocation Notice

---

As you are aware, Metropolitan's Water Supply Allocation Plan (WSAP) became effective July 1<sup>st</sup> and will remain in effect until June 30<sup>th</sup>, 2010. In April, given persistent drought conditions and dwindling reserves, Metropolitan's Board announced a Regional Shortage, Level 2 that calls for a 15 percent reduction in wholesale deliveries. In May, Calleguas' Board took formal action to develop and apply supply allocations for each District purveyor consistent with the WSAP (see attached resolution).

In recent months, Calleguas has coordinated with its purveyors to establish individual allocations based on the formula used by Metropolitan to derive allocations for its member agencies. Your agency's initial allocation is attached. It is important to note, that these allocations are not necessarily fixed as actual local supply production during the allocation year will likely lead to adjustments. The WSAP does not penalize those agencies for "extraordinary increased local production" during the allocation year. Calleguas recently submitted a letter to Metropolitan that we believe serves to further clarify this matter and will ensure fair treatment for Calleguas and its purveyors.

To assist in tracking each agency's progress, Calleguas will include a chart of monthly targets vs. actual deliveries in all water billings throughout the allocation year. While Metropolitan will not assess penalties on a monthly basis, closely monitoring our deliveries in this way will provide an early warning signal if demands are trending into a potential penalty scenario. Again, as local supply production will influence Calleguas' final Metropolitan allocation to be determined at the end of the allocation year, we will be contacting those purveyors with access to local supplies to incorporate this data into our tracking charts. Tracking will begin in August for the July 2009 billing period.

With respect to penalties, Metropolitan will assess any applicable penalties following a reconciliation process at the end of the allocation year. A penalty of double Metropolitan's Tier 2 rate in effect at time (\$811/af) will be applied to deliveries up to 15 percent above an agency's final allocation. A penalty of quadruple the Tier 2 rate will be assessed on deliveries above 15 percent. Calleguas will not assess any additional penalty, only pass through Metropolitan's to the affected purveyor(s).

As for allocation adjustments, we are preparing our first appeal given changed conditions for some purveyors related to newly annexed areas, lost local supplies, etc. Prior to submitting the appeal, we will follow-up with applicable purveyors to verify our understanding of the circumstances and related data.

Lastly, we are optimistic that a 15 percent reduction is achievable. This is new territory for all of us, but fortunately we expect to have ample time during the year to address any issues that may arise. As always, feel free to either contact Eric Bergh at 805-579-7128 or me at 805-579-7113 if you have any questions on this matter.



---

Donald R. Kendall

RESOLUTION OF THE BOARD OF DIRECTORS  
OF CALLEGUAS MUNICIPAL WATER DISTRICT  
IMPLEMENTING A WATER SUPPLY  
ALLOCATION PROGRAM

WHEREAS, the Board of Directors Calleguas Municipal Water District (District) adopted an Urban Water Management Plan (the Plan) in 1995 in accordance with the requirements of the California Urban Water Management Planning Act (Water Code Sections 10610 et seq; the Act); and the plan was updated in accordance with applicable law and adopted by the Board in 2000; and further updated and adopted on October 5<sup>th</sup>, 2005;

WHEREAS, the Plan describes actions the District may follow to manage demand and, if necessary, allocate water in response to reductions in available water supplies;

WHEREAS, the State of California is now in its third consecutive year of drought and in each year of the current drought, annual rainfall and the water content in the Sierra snowpack have been significantly below the amounts needed to fill California's reservoir system;

WHEREAS, on February 27<sup>th</sup>, 2009, Governor Schwarzenegger declared a state of emergency regarding ongoing drought conditions and ordered immediate action to manage the State's dwindling supplies;

WHEREAS, on April 14<sup>th</sup>, 2009, the Metropolitan Water District of Southern California (Metropolitan) declared that a regional water shortage exists and implemented its Water Supply Allocation Plan (WSAP) at a Regional Shortage Level 2, effective July 1<sup>st</sup>, 2009, including penalty rates for water use in excess of a member agency's annual allocation; and

WHEREAS, Ordinance No. 12 authorizes the Board of Directors to pass through to member agencies of the District any allocations or penalties for use exceeding allocations the Metropolitan Water District of Southern California may impose or that the Board of Directors might independently judge to be necessary.

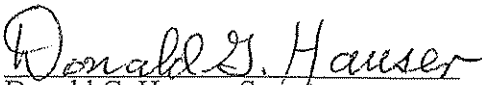
NOW, THEREFORE, THE BOARD OF DIRECTORS OF CALLEGUAS MUNICIPAL WATER DISTRICT RESOLVES AS FOLLOWS:

1. The General Manager is directed to develop and apply supply allocations for each District purveyor consistent with Metropolitan's WSAP; and
2. While the WSAP is in effect, the General Manager shall monitor implementation of WSAP requirements and provide monthly reports to the Board which compare actual purveyor demand with monthly allocation targets.

ADOPTED, SIGNED AND APPROVED this 27<sup>th</sup> day of May, 2009.

  
\_\_\_\_\_  
Ted Grandsen, President  
Board of Directors

ATTEST:

  
\_\_\_\_\_  
Donald G. Hauser, Secretary  
Board of Directors



Metropolitan Allocation (Level 2 - Initial)  
Camrosa Water District - Revised 6/17/09

|  | Acre feet     |
|--|---------------|
| <b>Base Period Retail Demand</b>                         | <b>12,637</b> |
| Base Period Local Supply (CY 2004- 2006 avg.)            | 3,763         |
| Base Period MWD Firm (CY 2004 - 2006 avg.)               | 8,874         |
| <b>Allocation Year Retail Demand</b>                     | <b>12,978</b> |
| Base Period Retail Demand                                | 12,637        |
| 2007 - 2009 VC County Growth Adjustment                  | 2.70%         |
| <b>Allocation Year Total Local Supply</b>                | <b>3,863</b>  |
| Base Period Local Supply                                 | 3,763         |
| Planned Increase Local Supply                            | 100           |
| Extraordinary Increase Local Supply                      | -             |
| <b>Allocation Year Local Supply for WSAP Calculation</b> | <b>3,863</b>  |
| Base Period Local Supply                                 | 3,763         |
| Planned Increase Local Supply                            | 100           |
| Shared Extraordinary Increase Local Supply               | -             |
| <b>Allocation Year Demand on MWD</b>                     | <b>9,115</b>  |
| Allocation Year Retail Demand                            | 12,978        |
| Allocation Year Local Supply for WSAP Calculation        | 3,863         |
| <b>Dependence on MWD</b>                                 | <b>70.23%</b> |
| Allocation Year Retail Demand                            | 12,978        |
| Allocation Year Demand on MWD                            | 9,115         |
| <b>Wholesale Minimum Allocation</b>                      | <b>7,748</b>  |
| Allocation Year Demand on MWD                            | 9,115         |
| Wholesale Minimum Percentage                             | 85.00%        |
| <b>Conservation Hardening Credit</b>                     | <b>67</b>     |
| Qualifying Rate Structure (acre feet)                    | 67            |
| <b>MWD Allocation</b>                                    | <b>7,815</b>  |
| Wholesale Minimum Allocation                             | 7,748         |
| Conservation Hardening Credit                            | 67            |
|  |               |
| <b>Total Water Supply</b>                                | <b>11,678</b> |
| Base Period Local Supply                                 | 3,763         |
| Planned Increase Local Supply                            | 100           |
| Extraordinary Increase Local Supply                      | -             |
| MWD Allocation   | 7,815         |
| <b>Retail Shortage</b>                                   | <b>10.02%</b> |
| Allocation Year Retail Demand                            | 12,978        |
| Total Water Supply                                       | 11,678        |
| <b>Wholesale Shortage</b>                                | <b>14.26%</b> |
| Allocation Year Demand on MWD                            | 9,115         |
| MWD Allocation   | 7,815         |

|   |             |
|---|-------------|
| <b>Penalty if MWD Allocation exceeded</b>                         |             |
| If 10% over Allocation  | \$1,267,580 |
| If no reduction from Allocation Year Demand                       | \$2,316,738 |
| <b>Metropolitan Penalty (based on recent Met rate increase):</b>  |             |
| Use between 100% and 115% of allocation = \$1,622/af (2 x Tier 2) |             |
| Use greater than 115% of allocation = \$3,244/af (4 x Tier 2)     |             |

TED GRANDSEN, PRESIDENT  
DIVISION 1

GAIL L. PRINGLE, TREASURER  
DIVISION 4

SCOTT H. QUADY, DIRECTOR  
DIVISION 2



WILLIAM R. SEAVER, VICE PRESIDENT  
DIVISION 5


DONALD G. HAUSER, SECRETARY  
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## Memorandum

**To:** Purveyor Managers

**From:** Eric Bergh, Acting General manager 

**Date:** September 2, 2010

**Re:** 2010-2011 Allocation Notice

---

As you are aware, Metropolitan's Water Supply Allocation Plan (WSAP) became effective July 1, 2009. Persistent uncertainties about water supplies led Metropolitan's Board to extend Level 2 allocations through June 30, 2011. As a result, Calleguas will also extend supply allocations for each District purveyor through June 2011 consistent with Metropolitan's WSAP.

In August, Metropolitan's Board of Directors approved revisions to the formula used to calculate member agency allocations. On the whole, Calleguas benefited from these revisions by receiving a slightly higher allocation. Calleguas has developed allocations for Allocation Year 2011 for its member purveyors that mirror Metropolitan's formula. Your agency's initial allocation is attached. It is important to note that these allocations are not necessarily fixed, as actual local supply production during the allocation year will likely lead to adjustments.

Throughout the Allocation Year, Calleguas will continue to include a chart of monthly targets vs. actual deliveries in water billings. To assist in that process, please continue to report your agency's groundwater production to Calleguas promptly at the end of each month. The monthly target reports will continue to serve as a monitoring tool designed to help purveyors avoid deliveries at levels that might result in the assessment of penalties by Metropolitan.

Again, Metropolitan will impose applicable penalties only after a reconciliation process at the end of the Allocation Year, when all local production for the year is certified. A penalty of double Metropolitan's Tier 2 rate, in effect at the time, will be applied to deliveries up to 15 percent above an agency's final allocation. A penalty of quadruple the Tier 2 rate will be assessed on deliveries greater than 15 percent above an allocation. Calleguas will not assess an additional penalty and will only pass through Metropolitan's penalty to the affected purveyor(s).

Our experience over the past year demonstrated that a reduction of 15 percent is achievable. We are optimistic that we will realize similar results this year. As always, feel free to contact either Cy Johnson at 805-579-7129 or me at 805-579-7128 if you have any questions on this matter.

RESOLUTION NO. 1679

RESOLUTION OF THE BOARD OF DIRECTORS  
OF CALLEGUAS MUNICIPAL WATER DISTRICT  
CONTINUING A WATER SUPPLY ALLOCATION  
PROGRAM FOR FISCAL YEAR 2010/2011

WHEREAS, the Board of Directors Calleguas Municipal Water District (District) adopted an Urban Water Management Plan (the Plan) in 1995 in accordance with the requirements of the California Urban Water Management Planning Act (Water Code Sections 10610 et seq; the Act); and the plan was updated in accordance with applicable law and adopted by the Board in 2000; and further updated and adopted on October 5<sup>th</sup>, 2005;

WHEREAS, the Plan describes actions the District may follow to manage demand and, if necessary, allocate water in response to reductions in available water supplies;

WHEREAS, Biological Opinions issued to protect Delta smelt, Central Valley salmon, longfin smelt and other species have reduced water supplies available for delivery from the State Water Project;

WHEREAS, on May 27<sup>th</sup>, 2009, under Resolution No. 1636, the District approved implementation of a water supply allocation program, effective July 1<sup>st</sup>, 2009, consistent with Metropolitan's previously-adopted Water Supply Allocation Plan (WSAP);

WHEREAS, on April 13<sup>th</sup>, 2010, Metropolitan declared that a regional water shortage will continue into 2011 and implemented its Water Supply Allocation Plan (WSAP) at a Regional Shortage Level 2, effective July 1<sup>st</sup>, 2010, including penalty rates for water use in excess of a member agency's annual allocation;

WHEREAS, the Department of Water Resources' current allocation of State Water Project water available to Metropolitan and the other state water contractors is only 50 percent of contracted supply as of the date of this resolution; and

WHEREAS, Ordinance No. 12 authorizes the Board of Directors to pass through to member agencies of the District any allocations or penalties for use exceeding allocations the Metropolitan Water District of Southern California may impose or that the Board of Directors might independently judge to be necessary.

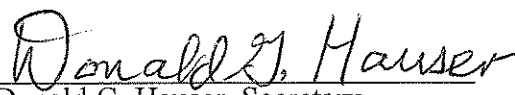
NOW, THEREFORE, THE BOARD OF DIRECTORS OF CALLEGUAS MUNICIPAL WATER DISTRICT RESOLVES AS FOLLOWS:

1. The General Manager is directed to develop and apply supply allocations for Fiscal Year 2010/ 2011 for each District purveyor consistent with Metropolitan's WSAP; and
2. While the WSAP is in effect, the General Manager shall monitor implementation of WSAP requirements and provide monthly reports to the Board which compare actual purveyor demand with monthly allocation targets.

ADOPTED, SIGNED AND APPROVED this 7<sup>th</sup> day of July, 2010.

  
Ted Grandsen, President  
Board of Directors

ATTEST:

  
Donald G. Hauser, Secretary  
Board of Directors

**Calleguas Municipal Water District**  
**Purveyor Allocation Sheet - 2010/11 WSAP**  
**Purveyor: Camrosa Water District**

9/1/2010

|  | <b>New WSAP<br/>Model</b> |
|--|---------------------------|
| <b>RETAIL M&amp;I DEMANDS</b>                            |                           |
| Base Period Retail Demands (Plus IAWP Opt Out)           | 12,637                    |
| 2007 Growth (DOF Actual)                                 | 0.82%                     |
| 2008 Growth (DOF Actual)                                 | 0.98%                     |
| 2009 Growth (DOF Actual)                                 | 1.13%                     |
| 2010 Growth (2007-2009 Average)                          | 0.98%                     |
| <b>Allocation Year Retail Demands</b>                    | <b>13,139</b>             |
| <b>LOCAL SUPPLIES</b>                                    |                           |
| Planned Allocation Year Local Supplies <sup>1</sup>      | 3,056                     |
| Extraordinary Allocation Year Local Supplies             | -                         |
| <b>Allocation Year Local Supplies</b>                    | <b>3,056</b>              |
| <b>WHOLESALE MINIMUM ALLOCATION</b>                      |                           |
| Demand for Firm MWD Supplies ( a )                       | 10,083                    |
| Wholesale Minimum Percentage ( b )                       | 85.0%                     |
| <b>Wholesale Minimum Allocation ( a x b )</b>            | <b>8,570</b>              |
| <b>RETAIL IMPACT ADJUSTMENT ALLOCATION</b>               |                           |
| Retail Impact Adjustment Maximum ( c )                   | 5.0%                      |
| Dependence on MWD ( d )                                  | 77%                       |
| <b>Retail Impact Adjustment Allocation ( a x c x d )</b> | <b>387</b>                |
| <b>DEMAND HARDENING CREDIT</b>                           |                           |
| <b>Demand Hardening Adjustment<sup>2</sup></b>           | <b>61</b>                 |
| <b>TOTAL MWD ALLOCATION</b>                              | <b>9,018</b>              |

<sup>1</sup>Using Purveyor forecast of groundwater pumping in Fiscal Year 2010-2011.

<sup>2</sup>CMWD Demand Hardening Credit allocated among its member purveyors according to Base Year Average Demand on CMWD

**APPENDIX F. Santa Rosa Groundwater Management Plan**

- Also submitted electronically

**Resolution 2014-01**  
**of the**  
**Fox Canyon Groundwater Management Agency**

**A RESOLUTION ESTABLISHING THE CONEJO CREEK WATER PUMPING PROGRAM  
INVOLVING CAMROSA WATER DISTRICT AND PLEASANT VALLEY COUNTY WATER  
DISTRICT USING THE CONEJO CREEK DIVERSION**

**WHEREAS**, the Fox Canyon Groundwater Management Agency Ordinance Code allows an operator to obtain storage credits for water that has been determined by the Agency Board to be foreign water stored.

**WHEREAS**, Calleguas Municipal Water District ("Calleguas"), Camrosa Water District ("Camrosa"), the City of Thousand Oaks, and Pleasant Valley County Water District ("Pleasant Valley") entered into various agreements to cooperate in the appropriation and beneficial use of the recycled water and recaptured water, including the construction and operation of facilities ("Conejo Creek Project" or "Project") to convey recycled water and recaptured water (collectively, "Project Water") to Camrosa and Pleasant Valley.

**WHEREAS**, among the agreements referenced above was an agreement between Calleguas and Pleasant Valley in 1994 setting forth the terms by which Pleasant Valley may purchase from Calleguas certain Project Water diverted through the Project to Pleasant Valley for utilization within Pleasant Valley's jurisdictional boundaries ("1994 Agreement").

**WHEREAS**, the 1994 Agreement provided that certain credits may accrue to Pleasant Valley under Fox Canyon Groundwater Management Agency ("Agency") ordinances and that Pleasant Valley shall transfer, in accordance with Agency ordinances, an acre-foot of credits as earned to Calleguas for each acre-foot of water delivered to Pleasant Valley from the Conejo Creek Project.

**WHEREAS**, the Agency Board in May 28, 2003, determined, approved and conditioned that water diverted by the Conejo Creek Project is foreign water and that deliveries of surface water from the Conejo Creek Project to Pleasant Valley's storage reservoir qualify for credits.

**WHEREAS**, under the 2003 approved program, credits earned by Pleasant Valley for deliveries of Conejo Creek Project water to meet local irrigation demands in lieu of groundwater pumping were transferred from Pleasant Valley to Calleguas Municipal Water District which may in turn transfer those credits to United Water Conservation District ("United") under the Supplemental M&I Water Program.

**WHEREAS**, Calleguas and United intend to continue to utilize credits through the Supplemental M&I Program, but Calleguas wishes to terminate its future participation in the Conejo Creek Project and cease accruing additional credits after the 1994 Agreement is terminated.

**WHEREAS**, Camrosa and Pleasant Valley propose to enter into an agreement by which Camrosa will sell Conejo Creek Project Water to Pleasant Valley ("Water Sale Agreement").

The substantive provisions of the Water Sale Agreement generally mirror the provisions of the 1994 Agreement.

**WHEREAS**, the proposed Water Sale Agreement provides that, subject to Agency approval, Pleasant Valley shall transfer to Camrosa, pursuant to applicable Agency rules and regulations, credits as earned for each acre-foot of water delivered to Pleasant Valley from Camrosa through the Conejo Creek Project

**WHEREAS**, the Conejo Creek Project is recognized in the Agency's Groundwater Management Plan as one of several strategies for bringing the aquifers of the Agency into balance, and the proposed Water Sale Agreement will help ensure that Project Water will continue to be utilized by Pleasant Valley.

**WHEREAS**, the Agency Ordinance Code authorizes the adjustment of extraction allocations consistent with the goal of reaching safe yield.

**WHEREAS**, an Impact Analysis (Analysis), dated December 12, 2013, concludes: 1) Deliveries of Conejo Creek Project water to Pleasant Valley have significantly reduced groundwater pumping by Pleasant Valley; 2) Conejo Creek Project water has the added benefit of being drought-proof because of its component of recycled water; 3) Pumping is moved away from the pumping depression and the coast to a more-inland area of better stormwater recharge; 4) Without the agreement, Conejo Creek Project water is delivered elsewhere and Pleasant Valley pumping would increase to replace that water source, resulting in a further drop of groundwater elevations; and 5) thus, the Conejo Creek Water Pumping Program is a net advantage to the basin.

**WHEREAS**, to the extent that cumulative extractions by Camrosa never exceed deliveries to Pleasant Valley, the proposed Water Sale Agreement will result in a net benefit to the Pleasant Valley Basins.

**NOW, THEREFORE, IT IS HEREBY ORDERED AND RESOLVED THAT:**

1. The Board approves the Conejo Creek Water Pumping Program involving Camrosa Water District and Pleasant Valley County Water District using the Conejo Creek Diversion.
2. Camrosa's cumulative pumping extractions through this program shall never exceed the cumulative deliveries to Pleasant Valley through this program. *The transfer of credits between Pleasant Valley and Camrosa is approved, as set forth in the Pleasant Valley/Camrosa agreement attached hereto and made a part hereof by reference."*
3. Camrosa will actively meter extraction quantity and monitor:
  - a. Water levels: Transducers in the Woodcreek Well and any new well Camrosa constructs in the PV Basin will record water levels on at least a monthly basis.
  - b. Water quality: Camrosa will monitor at least annually the water quality of the Woodcreek Well and any new wells that are part of this Resolution.
4. Camrosa shall submit an Annual Report to the Agency by February 1st each year, which shall include:

- a. Conejo Creek Project water delivery amounts to Pleasant Valley;
  - b. Credits retired in accordance with deliveries to Pleasant Valley;
  - c. Camrosa's cumulative deliveries to Pleasant Valley;
  - d. Well extractions under this program;
  - e. Water quality data;
  - f. Historical and past year water level well data from Camrosa's Pleasant Valley basin well(s); and
  - g. Drawdown analysis from extractions.
5. For the purpose of determining net impacts to the basin as a result of this agreement the Agency and Camrosa shall meet during the first week of May annually to review the contents of the Annual Report and its conclusion. If there are disagreements with the findings of net detriment, the matter may be referred to the FCGMA Board.
6. Camrosa will incrementally phase in extractions as follows:
  - a. Calendar Year 2014: Extractions will be limited to 200 AF.
  - b. Calendar Year 2015: Extractions will be limited to 1,000 AF.
  - c. Calendar Year 2016: Extractions will be limited to 2,000 AF.
  - d. Calendar Year 2017: If monitoring data indicates the basin will support it, extractions will be limited to 3,000 AF.
  - e. Calendar Year 2018: If monitoring data indicates the basin will support it, extractions will be limited to 4,500 AF.
  - f. All subsequent years: If monitoring data indicates the basin will support it, extractions will be limited to 4,500 AF annually.
7. Camrosa shall extract from Camrosa-owned wells and may supply groundwater so extracted within its service territory in accordance with Agency Resolution No. 2011-01.
8. The extractions referenced in this agreement are in addition to Camrosa's existing 806 AF yearly allocation currently being pumped at Woodcreek Well. The existing 806 AF allocation will be the first utilized for extraction.
9. This resolution will terminate on the same date as the agreement between Camrosa and Pleasant Valley regarding this program or 30 days after mutual agreement between the Agency and Camrosa.

On motion of Director Craven, seconded by Director Bennett, the foregoing resolution was passed and adopted on this 26<sup>th</sup> day of March 2014.

By:   
Lynn E. Maulhardt, Chair, Board of Directors  
Fox Canyon Groundwater Management Agency

ATTEST: I hereby certify that the above is a true and correct copy of Resolution No. 2014-01

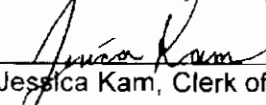
By:   
Jessica Kam, Clerk of the Board



Exhibit C

(Copy of Termination Agreement)

(See Attached)

## **TERMINATION AND RELEASE AGREEMENT**

This Termination and Release Agreement ("Agreement") is entered into between PLEASANT VALLEY COUNTY WATER DISTRICT ("Pleasant Valley"), a California county water district formed pursuant to California Water Code Section 30000, et seq. and CALLEGUAS MUNICIPAL WATER DISTRICT ("Calleguas"), a municipal water district formed pursuant to California Water Code Section 71000 et seq. Calleguas and Pleasant Valley are at times collectively referred to as "Parties" or individually as "Party."

### **RECITALS**

**A.** Pleasant Valley's primary mission is to provide water to agricultural users within the boundaries of its district, and to maintain and preserve the limited groundwater resources within its district. The Oxnard Plain groundwater aquifers, which are the source of Pleasant Valley's groundwater supplies, are subject to overdraft, and Pleasant Valley is seeking alternative water supplies.

**B.** The City of Thousand Oaks ("Thousand Oaks") owns and operates the wastewater treatment facilities known as the Hill Canyon Wastewater Treatment Plant, from which treated wastewater ("Recycled Water") is discharged to Conejo Creek. Thousand Oaks petitioned the State Water Resources Control Board ("SWRCB") for certain water rights over the Recycled Water and certain return flows from imported water used within Thousand Oaks' corporate boundaries ("Recaptured Water").

**C.** In anticipation of the SWRCB's decision, and based upon Thousand Oaks' original Water Right application, Calleguas Municipal Water District ("Calleguas"), Camrosa, Thousand Oaks, and Pleasant Valley entered into various agreements to cooperate in the appropriation and beneficial use of the Project Water, including the construction and operation of facilities ("Conejo Creek Project") to convey Recycled Water and Recaptured Water (collectively, "Project Water") to Camrosa and Pleasant Valley.

**D.** Among the agreements referenced in Recital C, above, was an agreement between Pleasant Valley and Calleguas dated the "\_\_ day of \_\_\_\_\_ 1994" (without the day and month specified) setting forth the terms by which Pleasant Valley may purchase from Calleguas certain Project Water diverted for delivery to Pleasant Valley for utilization within Pleasant Valley's jurisdictional boundaries ("1994 Agreement").

**E.** Thousand Oaks, Camrosa, Pleasant Valley and Calleguas all agree that the Conejo Creek Project will remain viable if Calleguas terminates its participation in the Project. Accordingly, Calleguas has entered into termination agreements with Thousand Oaks and Camrosa, and Thousand Oaks and Camrosa have now entered into a new agreement re-establishing and consolidating the terms of their relationship with respect to the Conejo Creek Project pursuant to State Water Resources Control Board Water Rights Decision 1638 ("Decision 1638") and the corresponding Water Right Permit 20952 issued by the SWRCB to Thousand Oaks. In accordance with that new agreement between Thousand Oaks and Camrosa, Project Water may be available for sale by Camrosa to Pleasant Valley.

**F.** Camrosa and Pleasant Valley have now entered into an agreement for the sale of water establishing the terms and conditions by which Camrosa may deliver Project Water to Pleasant Valley in accordance with State Water Resources Control Board Water Rights Decision 1638 and the corresponding Water Right Permit 20952.

**G.** The enforceability and implementation of the agreement between Camrosa and Pleasant Valley referenced in Recital F, above, is conditioned upon Pleasant Valley and Calleguas terminating the 1994 Agreement.

**H.** In order to facilitate the agreement for the sale of water between Camrosa and Pleasant Valley referenced in Recital F, above, Pleasant Valley and Calleguas now desire to enter into this Agreement setting forth the terms and conditions under which the 1994 Agreement shall be terminated and the Parties released from their respective obligations thereunder.

### **AGREEMENT**

**NOW, THEREFORE**, it is agreed as follows:

**1. Incorporation.** The above Recitals are hereby incorporated into this Agreement by reference.

**2. Termination of the 1994 Agreement.**

**2.1.** The 1994 Agreement shall terminate on the date that Pleasant Valley notifies Calleguas in writing (the "Termination Notice") that all conditions precedent to the agreement between Pleasant Valley and Camrosa referenced in Recital F, above, have been satisfied ("Termination Date"). Pleasant Valley agrees to provide such notice as soon as reasonably possible upon satisfaction of such conditions precedent. Except as provided in Section 4, below, all obligations of the Parties under the 1994 Agreement shall terminate on the Termination Date in the same manner and with the same effect as if that date had been originally fixed in the 1994 Agreement for the expiration of the term.

**2.2.** Within two working days after Calleguas receives the Termination Notice, Calleguas shall obtain meter reads to document the amount of water delivered to Pleasant Valley through the Termination Date. Within sixty days after Calleguas receives the Termination Notice, Calleguas shall invoice Pleasant Valley and within forty-five days thereafter Pleasant Valley shall pay Calleguas for the water delivered through the Termination Date pursuant to the provisions of Section 4 of the 1994 Agreement. In January or July (whichever is earlier) immediately following the Termination Date, Calleguas and Pleasant Valley shall submit a joint letter to the Fox Canyon Groundwater Management Agency requesting transfer of groundwater storage credits equal to the amount of the water delivered from Calleguas to Pleasant Valley pursuant to the 1994 Agreement during the preceding six months. In accordance with Section 5 of the 1994 Agreement, all such storage credits shall be transferred to Calleguas.

**3. Release of Liability.** Except for each Party's obligations pursuant to this Agreement, and except as otherwise provided in Section 4, below:

**3.1.** As of the Termination Date, each Party to this Agreement mutually, fully and unconditionally releases and discharges the other, and their respective officers, directors, employees, and other representatives, from any and all claims, demands, causes of action, obligations, and liabilities of every kind and nature whatsoever which each had, or claims to have had, or now has, against the other, which relates to or arises out of the 1994 Agreement.

**3.2.** It is further understood and agreed that each Party hereby waives any and all rights under California Civil Code Section 1542, which reads as follows:

"A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR."

Each Party acknowledges that it has received the advice of legal counsel with respect to the aforementioned waiver and understands the terms thereof.

4. **Continuing Liability.** Notwithstanding the termination of the 1994 Agreement and the release of liability provided for herein, Pleasant Valley shall remain liable, with respect to the term of the 1994 Agreement prior to the Termination Date, for the performance of all of its obligations under the 1994 Agreement, and Calleguas shall have all the rights and remedies with respect to such obligations as set forth in the 1994 Agreement. Without limiting the foregoing, Pleasant Valley is not released from its obligation to hold Calleguas harmless with respect to water quality as provided in Section 7 of the 1994 Agreement, and such obligation shall continue in full force and effect notwithstanding this Agreement.

5. **Governing Law.** This Agreement shall be governed and construed under the laws of the State of California.

6. **Counterparts.** This Agreement may be executed in counterparts, each of which shall be deemed an original, but such counterparts, when taken together, shall constitute one agreement.

7. **Binding Effect.** This Agreement shall inure to the benefit of, and shall be binding upon, the Parties.

8. **Time of the Essence.** Time is of the essence of this Agreement and the provisions contained herein.

9. **Further Assurances.** Pleasant Valley and Calleguas hereby agree to execute such further documents or instruments and take such actions as may be reasonably necessary or appropriate to carry out the intention of this Agreement.

10. **Voluntary Agreement.** The parties have read this Agreement and mutual release as set forth and have freely and voluntarily entered into this Agreement.

11. **Effective Date.** This Agreement shall be deemed effective upon execution by the last party to sign this Agreement.

IN WITNESS WHEREOF, the Parties have entered into this Agreement as of the Effective Date.

CALLEGUAS MUNICIPAL WATER DISTRICT

By: \_\_\_\_\_  
Susan Mulligan, General Manager

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

**PLEASANT VALLEY COUNTY WATER DISTRICT**

By: \_\_\_\_\_  
Thomas P. Vujovich, President, Board of Directors

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

By: \_\_\_\_\_  
David Souza, General Manager

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

**APPROVED AS TO FORM:**

By \_\_\_\_\_  
John Mathews, General Counsel

## **EMERGENCY ORDINANCE – E**

### ***AN EMERGENCY ORDINANCE LIMITING EXTRACTIONS FROM GROUNDWATER EXTRACTION FACILITIES, SUSPENDING USE OF CREDITS AND PROHIBITING CONSTRUCTION OF ANY GROUNDWATER EXTRACTION FACILITY AND/OR THE ISSUANCE OF ANY PERMIT THEREFOR***

The Board of Directors of the Fox Canyon Groundwater Management Agency, State of California, ordains as follows:

#### **ARTICLE 1. Findings**

The Board of Directors hereby finds that:

- A. On January 17, 2014, the Governor of the State of California proclaimed a state of emergency due to current drought conditions and called on Californians to reduce their water usage by 20 percent. On March 1, 2014, the Governor signed into law emergency drought legislation that finds and declares that California is experiencing an unprecedented dry period and shortage of water for its citizens, local governments, agriculture, environment, and other uses.
- B. The U.S. Drought Monitor has designated the territory of the Agency to be currently in a condition of exceptional drought.
- C. The United Water Conservation District has reported that groundwater storage in the Oxnard Plain Basin Forebay dropped by 32,200 acre feet in the past year and groundwater levels are currently below sea level. Continued dry conditions and regulatory restrictions on diversions from the Vern Freeman Diversion will result in less water available for recharge of the Forebay.
- D. On February 25, 2009, the Fox Canyon Groundwater Management Agency Board of Directors in response to a serious water resource problem constituting a very real and immediate threat to groundwater quality and quantity to the West, East, and South Las Posas Basins and any and all basins tributary thereto adopted Emergency Ordinance D, entitled An Emergency Ordinance to Impose a Temporary Moratorium on Construction of New Wells and to Provide an Upper Limitation to Efficiency Extraction Allocation Within the West, East, and South Las Posas Groundwater Basins Pending Development of a Basin-Specific Management Plan.
- E. Emergency Ordinance D was replaced by Ordinance 8.6 which presumed the development of a Basin-Specific Management Plan. However, the threats to groundwater quality and quantity in the Las Posas Basins remain and have increased due to persistent drought conditions, and the lack of a Basin-Specific Management Plan.

- F. The Agency's 2007 Update to its Groundwater Management Plan established basin yield at 100,000 acre-feet per year; however, average annual total extractions within the Agency for Calendar Years 2003 through 2012 were 124,586 acre-feet.
- G. Due to persistent dry conditions, the Department of Water Resources on January 31, 2014, announced a 2014 State Water Project Allocation of zero percent.
- H. The cumulative use of conservation credits has reduced the benefit of previous reductions in historical allocations, and could limit any benefit derived through this Emergency Ordinance.
- I. The Board may adopt ordinances for the purpose of regulating, conserving, managing, and controlling the use and extraction of groundwater within the territory of the Agency.
- J. The measures adopted in this emergency ordinance are necessary in order to improve and protect the quantity and quality of groundwater supplies within the territory of the Agency, to prevent a worsening of existing conditions, to allow time to implement a definite and long-term solution to improve groundwater conditions in the Agency and to bring groundwater extractions into balance with recharge.
- K. This emergency ordinance is exempt from the California Environmental Quality Act pursuant to CEQA Guidelines Sections 15307 and 15308 as an action taken "to ensure the maintenance, restoration, or enhancement of natural resources or the environment."

## **ARTICLE 2. Reduction of Groundwater Extractions**

- A. For the duration of this emergency ordinance, all Municipal and Industrial Operators' extraction allocations, regardless of type, shall be replaced with a Temporary Extraction Allocation (TEA) based on an operator's average annual reported extractions, not including any extractions that incurred surcharges, for Calendar Years 2003 through 2012.
- B. For the Port Hueneme Water Agency (PHWA), their TEA shall be established according to the Agency's approved July 24, 1996 agreement and allocations contained within.
- C. Temporary Extraction Allocations (TEA) shall be reduced in order to eliminate overdraft from the aquifer systems within the boundaries of the Agency for municipal and industrial uses. The reductions shall be as follows:
 

|                              |                    |
|------------------------------|--------------------|
| 1. Beginning July 1, 2014    | 10% (TEA x 0.90/2) |
| 2. Beginning January 1, 2015 | 15% (TEA x 0.85/2) |
| 3. Beginning July 1, 2015    | 20% (TEA x 0.80/2) |
| 4. Beginning January 1, 2016 | 20% (TEA x 0.80)   |

- D. For reported extractions starting on August 1, 2014, all Agricultural Operators' extraction allocations, regardless of type, shall be replaced with an Annual Efficiency Allocation as provided in Section 5.6.1.2. of the Agency Ordinance Code, except that the annual irrigation allowances used to calculate the Irrigation Allowance Index shall be adjusted downward 25% from the allowances set forth in Resolution No. 2011-04 (Exhibit No. 1). For computing the irrigation allowance, the definition of Planted Acre may include designated areas that grew irrigated crops in the twelve months prior to August 1, 2014, but have subsequently been fallowed or are growing a non-irrigated crop.
- E. On February 1, 2015, the Board may by Resolution undertake an additional adjustment to the annual irrigation allowances used to calculate the Irrigation Allowance Index, or other pumping restrictions in order to achieve a cumulative 10% reduction in pumping by Agricultural Operators.
- F. On August 1, 2015, the Board may by Resolution undertake an additional adjustment to the annual irrigation allowances used to calculate the Irrigation Allowance Index, or other pumping restrictions in order to achieve a cumulative 20% reduction in pumping by Agricultural Operators.
- G. Notwithstanding the extraction allocations established pursuant to Chapter 5.0 of the Agency Ordinance Code, all extractions in excess of the allocations established and adjusted by this emergency ordinance shall be subject to extraction surcharges.
- H. The Executive Officer may, on written request from a land owner or operator, grant a variance from the requirements of this article based on a showing:
  - 1. That there are special circumstances or exceptional characteristics of the owner or operator which do not apply generally to comparable owners or operators in the same vicinity; or
  - 2. That strict application of the reductions as they apply to the owner or operator will result in practical difficulties or unnecessary hardships inconsistent with the general purpose of this emergency ordinance; or
  - 3. That the granting of such variance will result in no net detriment to the aquifer systems.

### **ARTICLE 3. Limitation on Accrual and Use of Credits**

Notwithstanding Section 5.7 of the Agency Ordinance Code, conservation credits shall not be obtained and may not be used to avoid paying surcharges for extractions while this emergency ordinance is in effect.



#### **ARTICLE 4. Prohibition on New Extraction Facilities**

The Board prohibits the issuance of any permit for construction of a groundwater extraction facility, other than a replacement, backup or standby facility which does not allow the initiation of any new or increased use of groundwater, within the territory of the Agency. The prohibition set forth shall not apply to any permit for which a completed application is on file with the Agency on or before February 26, 2014, or for any permit in furtherance of a pumping program approved by the Board. For the purpose of this Article 4, a new or increased use is one that did not exist or occur before the effective date of this emergency ordinance. The Board may grant exceptions to the prohibition set forth in this Article 4 on a case-by-case basis. Applications for exceptions shall conform to the requirements of Section 5.2.2.3. of the Agency Ordinance Code and will be approved only if the Board makes the findings set forth in Section 5.2.2.4. of the Agency Ordinance Code.

#### **ARTICLE 5. Duration**

This emergency ordinance shall remain in effect from the date of adoption and reviewed every eighteen months, unless superseded or rescinded by action of the Board or a finding by the Board that the drought or emergency condition no longer exists.

#### **ARTICLE 6. Effective Date**

This ordinance shall become effective immediately upon adoption by the vote of at least four members of the Board; otherwise it shall become effective on the thirty-first day after adoption.

PASSED AND ADOPTED this 11<sup>th</sup> day of April 2014 by the following vote:

AYES: 5

NOES: 0

ABSENT: 0

By:



Lynn Maulhardt, Chair, Board of Directors  
Fox Canyon Groundwater Management Agency

ATTEST: I hereby certify that the above is a true and correct copy of Emergency Ordinance E.

By:


  
Jessica Kam, Clerk of the Board

Exhibit No. 1 – Current Irrigation Allowance Index and - Proposed Allowance Index Values  
(Adjusted 25%)

## Irrigation Allowance Index Values (Adjusted 25%)\*

### Acre-Feet/Acre

|   |            | Oxnard (Z1) |            |            | Camarillo (Z2) |            |            | Santa Paula (Z3) |            |            |
|---|------------|-------------|------------|------------|----------------|------------|------------|------------------|------------|------------|
|   |            | Typical     | Dry        | Wet        | Typical        | Dry        | Wet        | Typical          | Dry        | Wet        |
|   |            | Total AF/A  | Total AF/A | Total AF/A | Total AF/A     | Total AF/A | Total AF/A | Total AF/A       | Total AF/A | Total AF/A |
| Includes leaching and DU = 0.8                    | # of Crops |             |            |            |                |            |            |                  |            |            |
| Spring Veg./Fall Celery                           | 2          | 2.7         | 2.8        | 2.5        | 3.0            | 3.2        | 2.8        | 3.3              | 3.4        | 3.0        |
| Summer Veg./Fall Veg                              | 2          | 2.5         | 2.7        | 2.4        | 2.8            | 3.0        | 2.7        | 3.0              | 3.2        | 2.9        |
| Spring Veg./Late Summer Veg./+part Late Fall Veg* | 2+plus     | 2.9         | 3.1        | 2.8        | 3.3            | 3.5        | 3.1        | 3.6              | 3.8        | 3.4        |
|   |            | Oxnard (Z1) |            |            | Camarillo (Z2) |            |            | Santa Paula (Z3) |            |            |
|   |            | Typical     | Dry        | Wet        | Typical        | Dry        | Wet        | Typical          | Dry        | Wet        |
|   |            | Total AF/A  | Total AF/A | Total AF/A | Total AF/A     | Total AF/A | Total AF/A | Total AF/A       | Total AF/A | Total AF/A |
| Crop  |            |             |            |            |                |            |            |                  |            |            |
| Avocado - 20% Ground Shading                      | 1          | 1.4         | 1.5        | 1.3        | 1.6            | 1.7        | 1.5        | 1.7              | 1.9        | 1.6        |
| Avocado - 50% Ground Shading                      | 1          | 2.0         | 2.2        | 1.9        | 2.3            | 2.5        | 2.1        | 2.5              | 2.8        | 2.3        |
| Avocado - 70% Ground Shading                      | 1          | 2.7         | 3.1        | 2.6        | 3.1            | 3.5        | 3.0        | 3.4              | 3.8        | 3.2        |
| Blueberries 20% Ground Shading                    | 1          | 1.4         | 1.4        | 1.3        | 1.5            | 1.8        | 1.5        | 1.8              | 1.9        | 1.7        |
| Blueberries 50% Ground Shading                    | 1          | 2.0         | 2.1        | 1.9        | 2.2            | 2.3        | 2.2        | 2.4              | 2.5        | 2.4        |
| Blueberries 70% Ground Shading                    | 1          | 2.7         | 2.9        | 2.6        | 3.1            | 3.3        | 3.0        | 3.4              | 3.6        | 3.2        |
| Celery - Single Crop                              | 1          | 1.5         | 1.6        | 1.4        | 1.7            | 1.8        | 1.5        | 1.8              | 1.9        | 1.6        |
| Citrus - 20% Ground Shading                       | 1          | 1.4         | 1.6        | 1.3        | 1.6            | 1.8        | 1.5        | 1.8              | 1.9        | 1.6        |
| Citrus - 50% Ground Shading                       | 1          | 1.9         | 2.0        | 1.8        | 2.2            | 2.3        | 2.0        | 2.4              | 2.5        | 2.2        |
| Citrus - 70% Ground Shading                       | 1          | 2.6         | 2.7        | 2.4        | 2.9            | 3.0        | 2.7        | 3.2              | 3.3        | 2.9        |
| Lima Beans  | 1          | 0.8         | 0.8        | 0.8        | 0.9            | 0.9        | 0.9        | 1.0              | 1.0        | 0.9        |
| Misc. Veg Greenhouse - Fall                       | 1          | 0.9         | 0.9        | 0.8        | 1.0            | 1.0        | 0.9        | 1.0              | 1.1        | 1.0        |
| Misc. Veg Greenhouse - Spr                        | 1          | 1.0         | 1.1        | 0.9        | 1.1            | 1.2        | 1.1        | 1.2              | 1.3        | 1.2        |
| Misc. Veg Greenhouse - Summer                     | 1          | 1.2         | 1.2        | 1.2        | 1.3            | 1.3        | 1.3        | 1.4              | 1.4        | 1.4        |
| Misc. Veg Single Crop - Fall                      | 1          | 1.0         | 1.1        | 1.0        | 1.1            | 1.2        | 1.0        | 1.2              | 1.3        | 1.1        |
| Misc. Veg Single Crop - Spr                       | 1          | 1.2         | 1.3        | 1.1        | 1.3            | 1.4        | 1.2        | 1.5              | 1.6        | 1.4        |
| Misc. Veg Single Crop - Summer                    | 1          | 1.5         | 1.5        | 1.5        | 1.7            | 1.7        | 1.6        | 1.8              | 1.9        | 1.8        |
| Nursery (Non-Greenhouse)                          | 1          | 3.2         | 3.4        | 3.1        | 3.6            | 3.8        | 3.5        | 4.0              | 4.2        | 3.8        |
| Nursery (Greenhouse)                              | 1          | 3.4         | 3.5        | 3.3        | 3.8            | 3.9        | 3.7        | 4.2              | 4.3        | 4.0        |
| Raspberries - Tunnel                              | 1          | 3.2         | 3.4        | 3.1        | 3.7            | 3.8        | 3.6        | 4.0              | 4.2        | 3.9        |
| Sod   | 1          | 3.0         | 3.2        | 2.9        | 3.4            | 3.6        | 3.3        | 3.7              | 3.9        | 3.6        |
| Strawberries-Main Season                          | 1          | 2.3         | 2.5        | 2.2        | 2.6            | 2.7        | 2.4        | 2.8              | 2.9        | 2.6        |
| Strawberries-Summer                               | 1          | 1.4         | 1.4        | 1.3        | 1.5            | 1.6        | 1.4        | 1.6              | 1.7        | 1.5        |
| Tomatoes - Peppers                                | 1          | 1.7         | 1.7        | 1.6        | 1.9            | 1.9        | 1.8        | 2.1              | 2.1        | 2.0        |

\*Adopted by FCGMA Board on April 11, 2014

**Proposed Amendment to the Water Quality Control Plan – Los Angeles Region**

**to Incorporate the**

**Total Maximum Daily Load for Boron, Chloride, Sulfate, and TDS (Salts) in the Calleguas Creek Watershed**

Adopted by the California Regional Water Quality Control Board, Los Angeles Region on October 4, 2007

**Amendments**

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Add:

Chapter 7. Total Maximum Daily Loads (TMDLs)

Tables

7-22 Calleguas Creek Watershed Salts TMDL

7-22.1. Calleguas Creek Watershed Salts TMDL: Elements

7-22.2. Calleguas Creek Watershed Salts TMDL: Implementation Schedule

**Chapter 7. Total Maximum Daily Loads (TMDLs)**

**Calleguas Creek Watershed Salts TMDL**

This TMDL was adopted by:

The Regional Water Quality Control Board on October 4, 2007.

This TMDL was approved by:

The State Water Resources Control Board on May 20, 2008.

The Office of Administrative Law on November 6, 2008.

The U.S. Environmental Protection Agency on December 2, 2008.

This TMDL is effective on December 2, 2008.

The elements of the TMDL are presented in Table 7-22.1 and the Implementation Plan in Table 7-22.2

Table 7-22.1. Calleguas Creek Watershed Salts TMDL: Elements

| TMDL Element               | Key Findings and Regulatory Provisions  |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |
|----------------------------|---|------------|--------------------|---------------------------|---------------|---------------------------|------------------------|---------------------------|-------------------------------|---------------------------|-------------------------------|----------------------------|--------------|----------------------------|------------------------|----------------------------|------------------------|----------------------------|--------------|----------------------------|--------------|----------------------------|------------------------|
| <b>Problem Statement</b>   | <p>Eleven of fourteen reaches in the Calleguas Creek Watershed (CCW) are identified on the 2002 Clean Water Act Section 303(d) list of water-quality limited segments as impaired due to elevated levels of boron, chloride, sulfate, or total dissolved solids (TDS) (these constitutions are commonly referred to as salts). Salts primarily impact two beneficial uses: agricultural supply and groundwater recharge. Below is 2002 303(d) list of water quality limited segments of the Calleguas Creek watershed:</p> <table border="1" data-bbox="505 758 1409 1108"> <thead> <tr> <th>Reach Name</th><th>Pollutant/Stressor</th></tr> </thead> <tbody> <tr> <td>▪ Calleguas Creek Reach 3</td><td>Chloride, TDS</td></tr> <tr> <td>▪ Calleguas Creek Reach 6</td><td>Chloride, Sulfate, TDS</td></tr> <tr> <td>▪ Calleguas Creek Reach 7</td><td>Boron, Chloride, Sulfate, TDS</td></tr> <tr> <td>▪ Calleguas Creek Reach 8</td><td>Boron, Chloride, Sulfate, TDS</td></tr> <tr> <td>▪ Calleguas creek Reach 9A</td><td>Sulfate, TDS</td></tr> <tr> <td>▪ Calleguas Creek Reach 9B</td><td>Chloride, Sulfate, TDS</td></tr> <tr> <td>▪ Calleguas Creek Reach 10</td><td>Chloride, Sulfate, TDS</td></tr> <tr> <td>▪ Calleguas Creek Reach 11</td><td>Sulfate, TDS</td></tr> <tr> <td>▪ Calleguas Creek Reach 12</td><td>Sulfate, TDS</td></tr> <tr> <td>▪ Calleguas Creek Reach 13</td><td>Chloride, Sulfate, TDS</td></tr> </tbody> </table> <p>The list of impaired segments of the Calleguas Creek watershed in the 2002 303(d) list was maintained in the 2006 303(d) list.</p> <p>The segment of Reach 4 below Laguna Road is tidally influenced and therefore not impaired for chloride, boron, sulfate, and TDS. Consequently, the waste load and load allocations developed for Reach 4 in this TMDL do not apply below Laguna Road.</p> <p>The goal of this TMDL is to protect and restore the water quality in the Calleguas Creek watershed by controlling the loading and accumulation of salts.</p> | Reach Name | Pollutant/Stressor | ▪ Calleguas Creek Reach 3 | Chloride, TDS | ▪ Calleguas Creek Reach 6 | Chloride, Sulfate, TDS | ▪ Calleguas Creek Reach 7 | Boron, Chloride, Sulfate, TDS | ▪ Calleguas Creek Reach 8 | Boron, Chloride, Sulfate, TDS | ▪ Calleguas creek Reach 9A | Sulfate, TDS | ▪ Calleguas Creek Reach 9B | Chloride, Sulfate, TDS | ▪ Calleguas Creek Reach 10 | Chloride, Sulfate, TDS | ▪ Calleguas Creek Reach 11 | Sulfate, TDS | ▪ Calleguas Creek Reach 12 | Sulfate, TDS | ▪ Calleguas Creek Reach 13 | Chloride, Sulfate, TDS |
| Reach Name                 | Pollutant/Stressor  |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |
| ▪ Calleguas Creek Reach 3  | Chloride, TDS   |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |
| ▪ Calleguas Creek Reach 6  | Chloride, Sulfate, TDS  |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |
| ▪ Calleguas Creek Reach 7  | Boron, Chloride, Sulfate, TDS   |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |
| ▪ Calleguas Creek Reach 8  | Boron, Chloride, Sulfate, TDS   |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |
| ▪ Calleguas creek Reach 9A | Sulfate, TDS  |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |
| ▪ Calleguas Creek Reach 9B | Chloride, Sulfate, TDS  |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |
| ▪ Calleguas Creek Reach 10 | Chloride, Sulfate, TDS  |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |
| ▪ Calleguas Creek Reach 11 | Sulfate, TDS  |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |
| ▪ Calleguas Creek Reach 12 | Sulfate, TDS  |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |
| ▪ Calleguas Creek Reach 13 | Chloride, Sulfate, TDS  |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |
| <b>Numeric Targets</b>     | <p>Numeric targets are based on the site-specific numeric water quality objectives (WQOs) provided in the Basin Plan.</p> <p>1. <u>Surface Water Quality Objectives</u></p> <p>Site-specific surface water quality objectives for the Calleguas Creek watershed are applicable upstream of Potrero Road. Site specific objectives have not been determined for Calleguas Creek below Potrero Road because the reach is tidally influenced. Below are WQOs for Calleguas Creek upstream of Potrero Road.</p>   |            |                    |                           |               |                           |                        |                           |                               |                           |                               |                            |              |                            |                        |                            |                        |                            |              |                            |              |                            |                        |

**Attachment A to Resolution No. R4-2007-016**

| TMDL Element                   | Key Findings and Regulatory Provisions  |  |  |                    |                   |               |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
|--------------------------------|---|--|--|--------------------|-------------------|---------------|-----|---------|-----|-----|-----|--------------------------------|--|--|-----------------|--------------------|-------------------|---------------|---------------------|--|---|-----|-----------------|--|-----|-----|-----|-----|-----|-------------------|--|-----|-----|-----|-----|-----|--|--------------------------------|-----|-----|------|------|-----|---|--|-----|-----|-----|------|-----|--|--|-----|-----|-----|-----|-----|-------------|----------------------------|-----|-----|-----|------|------|---------------|-----------------------------------|-----|-----|-----|-----|------|---------------|------------------------------------|-----|-----|-----|-----|------|---------------|-----------------------------------|-----|-----|-----|------|
|                                | <table><tr><th>Constituent</th><th>Water Quality Objective<br/>Upstream Potrero Road<br/>(mg/L)</th></tr><tr><td>Boron</td><td>1</td></tr><tr><td>Chloride</td><td>150</td></tr><tr><td>Sulfate</td><td>250</td></tr><tr><td>TDS</td><td>850</td></tr></table> <p>2. <u>Groundwater Quality Objectives</u></p> <table><tr><th colspan="3">Groundwater Basin<sup>1</sup></th><th rowspan="2">Boron<br/>(mg/L)</th><th rowspan="2">Chloride<br/>(mg/L)</th><th rowspan="2">Sulfate<br/>(mg/L)</th><th rowspan="2">TDS<br/>(mg/L)</th></tr><tr><th>DWR<br/>Basin<br/>No.</th><th>Groundwater Basin as<br/>Listed in the 1994<br/>Basin Plan</th><th>Implementation<br/>Areas for Salts<br/>TMDL</th></tr><tr><td>4-6</td><td>Pleasant Valley</td><td>Conejo and<br/>Calleguas/Pleasant<br/>Valley</td><td>1.0</td><td>150</td><td>300</td><td>700</td></tr><tr><td>4-7</td><td>Arroyo Santa Rosa</td><td>Arroyo Santa Rosa<br/>and Conejo/Arroyo<br/>Santa Rosa</td><td>1.0</td><td>150</td><td>300</td><td>900</td></tr><tr><td>4-8</td><td>Las Posas Valley –<br/>East of Grimes<br/>Canyon and Hitch<br/>Blvd</td><td>Arroyo Simi/South<br/>Las Posas</td><td>3.0</td><td>400</td><td>1200</td><td>2500</td></tr><tr><td>4-8</td><td>Las Posas Valley –<br/>South of LA Ave<br/>between Somis Rd &amp;<br/>Hitch Blvd</td><td>Arroyo Las<br/>Posas/South Las<br/>Posas</td><td>1.0</td><td>250</td><td>700</td><td>1500</td></tr><tr><td>4-8</td><td>Las Posas Valley –<br/>North Las Posas Area</td><td>Arroyo Las<br/>Posas/North Las<br/>Posas</td><td>1.0</td><td>150</td><td>250</td><td>500</td></tr><tr><td>4-9</td><td>Simi Valley</td><td>Arroyo Simi/Simi<br/>Valley</td><td>1.0</td><td>150</td><td>600</td><td>1200</td></tr><tr><td>4-10</td><td>Conejo Valley</td><td>Arroyo<br/>Conejo/Conejo<br/>Valley</td><td>1.0</td><td>150</td><td>250</td><td>800</td></tr><tr><td>4-15</td><td>Tierra Rejada</td><td>Arroyo Santa<br/>Rosa/Tierra Rejada</td><td>0.5</td><td>100</td><td>250</td><td>700</td></tr><tr><td>4-19</td><td>Thousand Oaks</td><td>Arroyo<br/>Conejo/Thousand<br/>Oaks</td><td>1.0</td><td>150</td><td>700</td><td>1400</td></tr></table> <p><sup>1</sup> The groundwater quality objectives specified in this table are equivalent to the groundwater quality objectives in the 1994 Basin Plan. Groundwater basins are numbered in the first column according to Bulletin 118-80 (Department of Water Resources, 1980). Designated groundwater basins in the 1994 Basin Plan are specified in the second column and groundwater basin descriptions of Calleguas Creek used in this TMDL are listed in the third column of the table.</p> | Constituent  | Water Quality Objective<br>Upstream Potrero Road<br>(mg/L) | Boron              | 1                 | Chloride      | 150 | Sulfate | 250 | TDS | 850 | Groundwater Basin <sup>1</sup> |  |  | Boron<br>(mg/L) | Chloride<br>(mg/L) | Sulfate<br>(mg/L) | TDS<br>(mg/L) | DWR<br>Basin<br>No. | Groundwater Basin as<br>Listed in the 1994<br>Basin Plan | Implementation<br>Areas for Salts<br>TMDL | 4-6 | Pleasant Valley | Conejo and<br>Calleguas/Pleasant<br>Valley | 1.0 | 150 | 300 | 700 | 4-7 | Arroyo Santa Rosa | Arroyo Santa Rosa<br>and Conejo/Arroyo<br>Santa Rosa | 1.0 | 150 | 300 | 900 | 4-8 | Las Posas Valley –<br>East of Grimes<br>Canyon and Hitch<br>Blvd | Arroyo Simi/South<br>Las Posas | 3.0 | 400 | 1200 | 2500 | 4-8 | Las Posas Valley –<br>South of LA Ave<br>between Somis Rd &<br>Hitch Blvd | Arroyo Las<br>Posas/South Las<br>Posas | 1.0 | 250 | 700 | 1500 | 4-8 | Las Posas Valley –<br>North Las Posas Area | Arroyo Las<br>Posas/North Las<br>Posas | 1.0 | 150 | 250 | 500 | 4-9 | Simi Valley | Arroyo Simi/Simi<br>Valley | 1.0 | 150 | 600 | 1200 | 4-10 | Conejo Valley | Arroyo<br>Conejo/Conejo<br>Valley | 1.0 | 150 | 250 | 800 | 4-15 | Tierra Rejada | Arroyo Santa<br>Rosa/Tierra Rejada | 0.5 | 100 | 250 | 700 | 4-19 | Thousand Oaks | Arroyo<br>Conejo/Thousand<br>Oaks | 1.0 | 150 | 700 | 1400 |
| Constituent                    | Water Quality Objective<br>Upstream Potrero Road<br>(mg/L)  |  |  |                    |                   |               |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| Boron                          | 1   |  |  |                    |                   |               |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| Chloride                       | 150   |  |  |                    |                   |               |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| Sulfate                        | 250   |  |  |                    |                   |               |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| TDS                            | 850   |  |  |                    |                   |               |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| Groundwater Basin <sup>1</sup> |   |  | Boron<br>(mg/L)  | Chloride<br>(mg/L) | Sulfate<br>(mg/L) | TDS<br>(mg/L) |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| DWR<br>Basin<br>No.            | Groundwater Basin as<br>Listed in the 1994<br>Basin Plan  | Implementation<br>Areas for Salts<br>TMDL            |  |                    |                   |               |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| 4-6                            | Pleasant Valley   | Conejo and<br>Calleguas/Pleasant<br>Valley           | 1.0  | 150                | 300               | 700           |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| 4-7                            | Arroyo Santa Rosa   | Arroyo Santa Rosa<br>and Conejo/Arroyo<br>Santa Rosa | 1.0  | 150                | 300               | 900           |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| 4-8                            | Las Posas Valley –<br>East of Grimes<br>Canyon and Hitch<br>Blvd  | Arroyo Simi/South<br>Las Posas                       | 3.0  | 400                | 1200              | 2500          |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| 4-8                            | Las Posas Valley –<br>South of LA Ave<br>between Somis Rd &<br>Hitch Blvd   | Arroyo Las<br>Posas/South Las<br>Posas               | 1.0  | 250                | 700               | 1500          |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| 4-8                            | Las Posas Valley –<br>North Las Posas Area  | Arroyo Las<br>Posas/North Las<br>Posas               | 1.0  | 150                | 250               | 500           |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| 4-9                            | Simi Valley   | Arroyo Simi/Simi<br>Valley                           | 1.0  | 150                | 600               | 1200          |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| 4-10                           | Conejo Valley   | Arroyo<br>Conejo/Conejo<br>Valley                    | 1.0  | 150                | 250               | 800           |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| 4-15                           | Tierra Rejada   | Arroyo Santa<br>Rosa/Tierra Rejada                   | 0.5  | 100                | 250               | 700           |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| 4-19                           | Thousand Oaks   | Arroyo<br>Conejo/Thousand<br>Oaks                    | 1.0  | 150                | 700               | 1400          |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |
| Source Analysis                | Sources of salts in the watershed include water supply (water imported from the State Water Project or Freeman Diversion and deep aquifer groundwater pumping), water softeners that discharge to publicly owned treatment works (POTWs), POTW treatment chemicals, atmospheric deposition, pesticides and fertilizers, and indoor water use (chemicals, cleansers, food, etc.). These salts are then transported through POTW discharges and runoff to surface water, shallow groundwater, and/or stranded on the watershed in the soils. Salts transported in the surface water to the ocean are currently the only salts   |  |  |                    |                   |               |     |         |     |     |     |                                |  |  |                 |                    |                   |               |                     |  |   |     |                 |  |     |     |     |     |     |                   |  |     |     |     |     |     |  |                                |     |     |      |      |     |   |  |     |     |     |      |     |  |  |     |     |     |     |     |             |                            |     |     |     |      |      |               |                                   |     |     |     |     |      |               |                                    |     |     |     |     |      |               |                                   |     |     |     |      |

**Attachment A to Resolution No. R4-2007-016**

| TMDL Element            | Key Findings and Regulatory Provisions  |
|-------------------------|---|
|                         | <p>that are exported from the watershed. While the concentration of salts in the introduced water is usually below the Basin Plan Objectives, the quantity of water brought into the watershed is sufficient to rank introduced water as the greatest source of salts to the watershed.</p> <p>Salts that are transported during dry weather to the surface water are quantified via the following mechanisms: groundwater pumping, groundwater exfiltration, POTWs, dry weather urban and agricultural runoff. Wet weather loadings from each of these sources have the potential to be significant, but tend to be lower in concentration and do not occur during the critical conditions for salts. Wet weather loads are significant from the perspective of transporting stranded salts off the watershed.</p>   |
| <b>Linkage Analysis</b> | <p>The linkage analysis for salts focuses on the surface water concentrations of salts. However, surface water concentrations are only one component of the watershed salts issue. Because it is difficult to model other aspects of the salt problem (i.e. surface water and groundwater interactions, stranded salts), two simplified approaches have been used to demonstrate that salts will be removed from the watershed, which should have a correspondingly positive impact on surface water and groundwater salts concentrations. First, a surface water model was developed to provide a linkage between sources and surface water quality and to demonstrate the impact of projects on receiving water quality in the watershed. Second, a salt balance was developed to quantify the removal of salts from the watershed with the goal of achieving a mass balance in which the mass of boron, sulfate, TDS and chloride imported into Calleguas Creek subwatersheds is no more than the mass of boron, sulfate, TDS and chloride exported from the Calleguas Creek subwatershed. Achieving a salt balance in the watershed will prevent additional build-up of salts in any medium in the watershed and protect ground water supplies from increasing in salt concentrations.</p> <p>The Calleguas Creek Modeling System is a mass balance based model that was developed for the surface water to provide a linkage between sources and surface water quality. To estimate the salts balance in the watershed, a simple chloride mass balance was developed by the Camrosa Water District (Hajas, 2003a) and modified to address the other salts.</p> |

| TMDL Element                  | Key Findings and Regulatory Provisions  |
|-------------------------------|---|
| <b>Waste Load Allocations</b> | <p><b><u>A. POTWs</u></b></p> <p>The TMDL includes waste load allocations (WLAs) for five POTWs in the Calleguas Creek watershed: Simi Valley Water Quality Control Plant (WQCP), Hill Canyon Wastewater Treatment Plan (WWTP), Moorpark WWTP, Camarillo Water Reclamation Plant (WRP), and Camrosa Water Reclamation Facility (WRF). At the end of the implementation period, only Simi Valley WQCP and the Hill Canyon WWTP are expected to discharge to surface waters. Moorpark WWTP and Camrosa WRF currently discharge directly to ponds under dry weather conditions. As part of the TMDL implementation, the Renewable Water Resources Management Program (RWRMP) will introduce treated wastewater from the Camarillo WRP into the Camrosa recycled water storage and distribution system. Surplus treated wastewater from Camarillo WRP and Camrosa WRF will be discharged at a point downstream of Potrero Road Bridge to Calleguas Creek. Dry weather WLAs are included for the case when Camarillo WRP, Camrosa WRF, and Moorpark WWTP need to discharge to the stream (for example, if there is insufficient recycled water demand during the wet season). Including WLAs for these POTWs ensures that water quality objectives are not exceeded as a result of their discharge.</p> <p>POTW mass-based WLAs are calculated as the POTW effluent flow rate multiplied by the water quality objective and include a mass-based adjustment factor (AF) that is subtracted from the product of the flow-rate and the water quality objective. The adjustment factor is used to link POTW allocations to the required reductions in background loads. The adjustment factors are implemented through mechanisms that export salts out of the subwatershed, such as groundwater pumping, to meet the salt balance requirements. To ensure that the loading capacity is achieved in surface water and the reductions in background loads are achieved, minimum salt exports shown below are required for POTWs and are included in WLAs as a component of the adjustment factors. If the background load reductions are not achieved, POTWs shall be responsible for providing additional load reductions to achieve water quality standards. The AF is set equal to the difference between the minimum salts export requirement to attain a salt balance in the subject reaches and the actual salts export. If the calculated annual dry weather salt exports from the subwatershed to which the POTW discharges are less than the minimum required exports for the previous year and the annual average receiving water concentration at the base of the subwatershed to which the POTW discharges exceeds water quality objectives for the previous year, the POTW allocations will be reduced using the adjustment factor.</p> |

# Attachment A to Resolution No. R4-2007-016

| TMDL Element     | Key Findings and Regulatory Provisions  |                             |                                  |                               |                                 |                               |                  |     |      |      |     |               |     |      |      |     |                  |      |      |      |   |             |      |      |      |   |               |      |      |      |   |
|------------------|---|-----------------------------|----------------------------------|-------------------------------|---------------------------------|-------------------------------|------------------|-----|------|------|-----|---------------|-----|------|------|-----|------------------|------|------|------|---|-------------|------|------|------|---|---------------|------|------|------|---|
|                  | <p>The adjustment factors are also used to address unusual conditions in which the inputs to the POTWs from the water supply may challenge the POTWs ability to meet the assigned WLAs. The adjustment factor allows for the additional POTW loading only when the water quality objectives are met in the receiving waters. POTW allocations can be adjusted upwards when imported water supply chloride concentrations exceed 80 mg/L and discharges from the POTW exceed the WLA. In order to apply the AF to the assigned WLAs, the POTW is required to submit documentation of the water supply chloride concentrations, receiving water chloride concentration, the effluent mass, and evidence of increased salt exports to offset the increased discharges from the POTW to the RWQCB for approval.</p> <p>WLAs shown in table below apply to POTWS during dry weather when the flows in the receiving water are below the 86<sup>th</sup> percentile flow. During wet weather, the loading capacity of the stream is significantly increased by stormwater flows with very low salt concentrations. Any discharges from the POTWs during wet weather would be assimilated by these large storm flows and would not cause exceedances of water quality objectives.</p> <p>Boron is only listed in the Simi and Pleasant Valley (Revolon) subwatersheds and exceedances of boron do not occur in other portions of the watershed. Therefore, boron allocations are only included for the Simi Valley WQCP.</p> <p>Interim limits are included to allow time for dischargers to put in place implementation measures necessary to achieve final waste load allocations. The monthly average interim limits are set equal to the 95<sup>th</sup> percentile of available discharge data.</p> <p><b>1. Minimum Salt Export Requirements for Adjustment Factor <sup>a</sup></b></p> <table><tr><th>POTW</th><th>Minimum Chloride Export (lb/day)</th><th>Minimum TDS Export (lb/day)</th><th>Minimum Sulfate Export (lb/day)</th><th>Minimum Boron Export (lb/day)</th></tr><tr><td>Simi Valley WQCP</td><td>460</td><td>3220</td><td>9120</td><td>3.3</td></tr><tr><td>Moorpark WWTP</td><td>460</td><td>3220</td><td>9120</td><td>3.3</td></tr><tr><td>Hill Canyon WWTP</td><td>1060</td><td>7920</td><td>4610</td><td>0</td></tr><tr><td>Camrosa WRF</td><td>1060</td><td>7920</td><td>4610</td><td>0</td></tr><tr><td>Camarillo WRP</td><td>1060</td><td>7920</td><td>4610</td><td>0</td></tr></table> <p><sup>a</sup> Minimum export requirements include a 10% Margin of Safety.</p> | POTW                        | Minimum Chloride Export (lb/day) | Minimum TDS Export (lb/day)   | Minimum Sulfate Export (lb/day) | Minimum Boron Export (lb/day) | Simi Valley WQCP | 460 | 3220 | 9120 | 3.3 | Moorpark WWTP | 460 | 3220 | 9120 | 3.3 | Hill Canyon WWTP | 1060 | 7920 | 4610 | 0 | Camrosa WRF | 1060 | 7920 | 4610 | 0 | Camarillo WRP | 1060 | 7920 | 4610 | 0 |
| POTW             | Minimum Chloride Export (lb/day)  | Minimum TDS Export (lb/day) | Minimum Sulfate Export (lb/day)  | Minimum Boron Export (lb/day) |                                 |                               |                  |     |      |      |     |               |     |      |      |     |                  |      |      |      |   |             |      |      |      |   |               |      |      |      |   |
| Simi Valley WQCP | 460   | 3220                        | 9120                             | 3.3                           |                                 |                               |                  |     |      |      |     |               |     |      |      |     |                  |      |      |      |   |             |      |      |      |   |               |      |      |      |   |
| Moorpark WWTP    | 460   | 3220                        | 9120                             | 3.3                           |                                 |                               |                  |     |      |      |     |               |     |      |      |     |                  |      |      |      |   |             |      |      |      |   |               |      |      |      |   |
| Hill Canyon WWTP | 1060  | 7920                        | 4610                             | 0                             |                                 |                               |                  |     |      |      |     |               |     |      |      |     |                  |      |      |      |   |             |      |      |      |   |               |      |      |      |   |
| Camrosa WRF      | 1060  | 7920                        | 4610                             | 0                             |                                 |                               |                  |     |      |      |     |               |     |      |      |     |                  |      |      |      |   |             |      |      |      |   |               |      |      |      |   |
| Camarillo WRP    | 1060  | 7920                        | 4610                             | 0                             |                                 |                               |                  |     |      |      |     |               |     |      |      |     |                  |      |      |      |   |             |      |      |      |   |               |      |      |      |   |



| TMDL Element               | Key Findings and Regulatory Provisions   |                           |                               |                             |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |
|----------------------------|--|---------------------------|-------------------------------|-----------------------------|----------------|--------------|------------------|-----|-----|-----|-----|------------------|-----|-----|-----|-----|---------------|-----|-----|-----|-----|---------------|-----|------|-----|-----|--------------|-----|-----|-----|-----|------|--------------------------------|---------------------------|-------------------------------|-----------------------------|------------------|----------|----------|----------|----------|------------------|----------|----------|----------|-----|----------------------------|----------|----------|----------|-----|----------------------------|----------|----------|----------|-----|--------------------------|----------|----------|----------|-----|
|                            | <div>2. Interim Monthly Average WLAs for POTWs</div> <table><tr><th>POTW</th><th>Chloride (mg/L)</th><th>TDS (mg/L)</th><th>Sulfate (mg/L)</th><th>Boron (mg/L)</th></tr><tr><td>Simi Valley WQCP</td><td>183</td><td>955</td><td>298</td><td>N/A</td></tr><tr><td>Hill Canyon WWTP</td><td>189</td><td>N/A</td><td>N/A</td><td>N/A</td></tr><tr><td>Moorpark WWTP</td><td>171</td><td>N/A</td><td>267</td><td>N/A</td></tr><tr><td>Camarillo WRP</td><td>216</td><td>1012</td><td>283</td><td>N/A</td></tr><tr><td>Camrosa WRF*</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></tr></table> <div>* Camrosa WRF has not discharged to surface water during the period under which interim limits were calculated. When effluent data are available, the Regional Board may adopt interim WLAs for Camrosa WRF.<br/>N/A: The 95<sup>th</sup> percentile concentration is below the Basin Plan objective so interim limits are not necessary.</div> <div>3. Final WLAs for POTWs<sup>a,d</sup></div> <table><tr><th>POTW</th><th>Chloride (lb/day)<sup>c</sup></th><th>TDS (lb/day)<sup>c</sup></th><th>Sulfate (lb/day)<sup>c</sup></th><th>Boron (lb/day)<sup>c</sup></th></tr><tr><td>Simi Valley WQCP</td><td>150*Q-AF</td><td>850*Q-AF</td><td>250*Q-AF</td><td>1.0*Q-AF</td></tr><tr><td>Hill Canyon WWTP</td><td>150*Q-AF</td><td>850*Q-AF</td><td>250*Q-AF</td><td>N/A</td></tr><tr><td>Moorpark WWTP<sup>b</sup></td><td>150*Q-AF</td><td>850*Q-AF</td><td>250*Q-AF</td><td>N/A</td></tr><tr><td>Camarillo WRP<sup>b</sup></td><td>150*Q-AF</td><td>850*Q-AF</td><td>250*Q-AF</td><td>N/A</td></tr><tr><td>Camrosa WRF<sup>b</sup></td><td>150*Q-AF</td><td>850*Q-AF</td><td>250*Q-AF</td><td>N/A</td></tr></table> <div><div>a. The allocations shown only apply during dry weather (as defined in this TMDL). During wet weather discharges from the POTWs do not cause exceedances of water quality objectives.</div><div>b. These POTWs are not expected to discharge after the end of the implementation period.</div><div>c. AF is the adjustment factor and equals the difference between the minimum salts export requirement and the actual salts export.</div><div>d. Q represents the POTW flow at the time the water quality measurement is collected and a conversion factor to lb/day based on the units of measurement for the flow.</div><div>N/A Boron is not listed in the reaches to which the POTW discharges. No WLA is required.</div></div> <div>B. Urban Runoff</div> <div>Permitted stormwater dischargers that are responsible parties to this TMDL include the Municipal Stormwater Dischargers (MS4s) of the Cities of Camarillo, Moorpark, Thousand Oaks, County of Ventura, Ventura County Watershed Protection District, and general industrial and construction permittees. Permitted stormwater dischargers are assigned a dry weather wasteload allocation equal to the average dry weather critical condition flow rate multiplied by the numeric target for each constituent. Waste load allocations apply in the receiving water at the base of each subwatershed. Because wet weather flows transport a large mass of salts at low concentrations, these dischargers meet water</div> | POTW                      | Chloride (mg/L)               | TDS (mg/L)                  | Sulfate (mg/L) | Boron (mg/L) | Simi Valley WQCP | 183 | 955 | 298 | N/A | Hill Canyon WWTP | 189 | N/A | N/A | N/A | Moorpark WWTP | 171 | N/A | 267 | N/A | Camarillo WRP | 216 | 1012 | 283 | N/A | Camrosa WRF* | N/A | N/A | N/A | N/A | POTW | Chloride (lb/day) <sup>c</sup> | TDS (lb/day) <sup>c</sup> | Sulfate (lb/day) <sup>c</sup> | Boron (lb/day) <sup>c</sup> | Simi Valley WQCP | 150*Q-AF | 850*Q-AF | 250*Q-AF | 1.0*Q-AF | Hill Canyon WWTP | 150*Q-AF | 850*Q-AF | 250*Q-AF | N/A | Moorpark WWTP <sup>b</sup> | 150*Q-AF | 850*Q-AF | 250*Q-AF | N/A | Camarillo WRP <sup>b</sup> | 150*Q-AF | 850*Q-AF | 250*Q-AF | N/A | Camrosa WRF <sup>b</sup> | 150*Q-AF | 850*Q-AF | 250*Q-AF | N/A |
| POTW                       | Chloride (mg/L)  | TDS (mg/L)                | Sulfate (mg/L)                | Boron (mg/L)                |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |
| Simi Valley WQCP           | 183  | 955                       | 298                           | N/A                         |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |
| Hill Canyon WWTP           | 189  | N/A                       | N/A                           | N/A                         |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |
| Moorpark WWTP              | 171  | N/A                       | 267                           | N/A                         |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |
| Camarillo WRP              | 216  | 1012                      | 283                           | N/A                         |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |
| Camrosa WRF*               | N/A  | N/A                       | N/A                           | N/A                         |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |
| POTW                       | Chloride (lb/day) <sup>c</sup>   | TDS (lb/day) <sup>c</sup> | Sulfate (lb/day) <sup>c</sup> | Boron (lb/day) <sup>c</sup> |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |
| Simi Valley WQCP           | 150*Q-AF   | 850*Q-AF                  | 250*Q-AF                      | 1.0*Q-AF                    |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |
| Hill Canyon WWTP           | 150*Q-AF   | 850*Q-AF                  | 250*Q-AF                      | N/A                         |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |
| Moorpark WWTP <sup>b</sup> | 150*Q-AF   | 850*Q-AF                  | 250*Q-AF                      | N/A                         |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |
| Camarillo WRP <sup>b</sup> | 150*Q-AF   | 850*Q-AF                  | 250*Q-AF                      | N/A                         |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |
| Camrosa WRF <sup>b</sup>   | 150*Q-AF   | 850*Q-AF                  | 250*Q-AF                      | N/A                         |                |              |                  |     |     |     |     |                  |     |     |     |     |               |     |     |     |     |               |     |      |     |     |              |     |     |     |     |      |                                |                           |                               |                             |                  |          |          |          |          |                  |          |          |          |     |                            |          |          |          |     |                            |          |          |          |     |                          |          |          |          |     |

| TMDL Element                | Key Findings and Regulatory Provisions  |                              |                         |                             |                           |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |
|-----------------------------|---|------------------------------|-------------------------|-----------------------------|---------------------------|----------------|-----|---------------|------|-----------|------|--------------|------------------------------------|------------------------------|-------------------------|-----------------------------|---------------------------|------|------|-------|-------|-------|----|-----------|------|-----|-----|-----|-----|--------|------|-------|-------|-------|-----|-----------|------|----|-----|-----|-----|-----------------------------|------|-----|-----|-----|-----|---------------------------|------|-----|-------|-----|---|
|                             | <p>quality objectives during wet weather. Dry weather allocations apply when instream flow rates are below the 86<sup>th</sup> percentile flow and there has been no measurable precipitation in the previous 24 hours.</p> <p>Interim limits are assigned for dry weather discharges from areas covered by NPDES stormwater permits to allow time to implement appropriate actions. The interim limits are assigned as concentration based receiving water limits set to the 95<sup>th</sup> percentile of the discharger data as a monthly average limit except for chloride. The 95<sup>th</sup> percentile for chloride was 267 mg/L which is higher than the recommended criteria set forth in the Basin Plan for protection of sensitive beneficial uses including aquatic life. Therefore, the interim limit for chloride for Permitted Stormwater Dischargers is set equal to 230 mg/L to ensure protection of sensitive beneficial uses in the Calleguas Creek watershed.</p> <p><b>1. Interim Dry Weather WLAs for Permitted Stormwater Dischargers</b></p> <table><tr><th>Constituent</th><th>Interim Limit (mg/L)</th></tr><tr><td>Boron Total</td><td>1.3</td></tr><tr><td>Chloride Total</td><td>230</td></tr><tr><td>Sulfate Total</td><td>1289</td></tr><tr><td>TDS Total</td><td>1720</td></tr></table> <p><b>2. Final Dry Weather WLAs for Permitted Stormwater Dischargers</b></p> <table><tr><th>Subwatershed</th><th>Critical Condition Flow Rate (mgd)</th><th>Chloride Allocation (lb/day)</th><th>TDS Allocation (lb/day)</th><th>Sulfate Allocation (lb/day)</th><th>Boron Allocation (lb/day)</th></tr><tr><td>Simi</td><td>1.39</td><td>1,738</td><td>9,849</td><td>2,897</td><td>12</td></tr><tr><td>Las Posas</td><td>0.13</td><td>157</td><td>887</td><td>261</td><td>N/A</td></tr><tr><td>Conejo</td><td>1.26</td><td>1,576</td><td>8,931</td><td>2,627</td><td>N/A</td></tr><tr><td>Camarillo</td><td>0.06</td><td>72</td><td>406</td><td>119</td><td>N/A</td></tr><tr><td>Pleasant Valley (Calleguas)</td><td>0.12</td><td>150</td><td>850</td><td>250</td><td>N/A</td></tr><tr><td>Pleasant Valley (Revolon)</td><td>0.25</td><td>314</td><td>1,778</td><td>523</td><td>2</td></tr></table> | Constituent                  | Interim Limit (mg/L)    | Boron Total                 | 1.3                       | Chloride Total | 230 | Sulfate Total | 1289 | TDS Total | 1720 | Subwatershed | Critical Condition Flow Rate (mgd) | Chloride Allocation (lb/day) | TDS Allocation (lb/day) | Sulfate Allocation (lb/day) | Boron Allocation (lb/day) | Simi | 1.39 | 1,738 | 9,849 | 2,897 | 12 | Las Posas | 0.13 | 157 | 887 | 261 | N/A | Conejo | 1.26 | 1,576 | 8,931 | 2,627 | N/A | Camarillo | 0.06 | 72 | 406 | 119 | N/A | Pleasant Valley (Calleguas) | 0.12 | 150 | 850 | 250 | N/A | Pleasant Valley (Revolon) | 0.25 | 314 | 1,778 | 523 | 2 |
| Constituent                 | Interim Limit (mg/L)  |                              |                         |                             |                           |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |
| Boron Total                 | 1.3   |                              |                         |                             |                           |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |
| Chloride Total              | 230   |                              |                         |                             |                           |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |
| Sulfate Total               | 1289  |                              |                         |                             |                           |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |
| TDS Total                   | 1720  |                              |                         |                             |                           |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |
| Subwatershed                | Critical Condition Flow Rate (mgd)  | Chloride Allocation (lb/day) | TDS Allocation (lb/day) | Sulfate Allocation (lb/day) | Boron Allocation (lb/day) |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |
| Simi                        | 1.39  | 1,738                        | 9,849                   | 2,897                       | 12                        |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |
| Las Posas                   | 0.13  | 157                          | 887                     | 261                         | N/A                       |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |
| Conejo                      | 1.26  | 1,576                        | 8,931                   | 2,627                       | N/A                       |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |
| Camarillo                   | 0.06  | 72                           | 406                     | 119                         | N/A                       |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |
| Pleasant Valley (Calleguas) | 0.12  | 150                          | 850                     | 250                         | N/A                       |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |
| Pleasant Valley (Revolon)   | 0.25  | 314                          | 1,778                   | 523                         | 2                         |                |     |               |      |           |      |              |                                    |                              |                         |                             |                           |      |      |       |       |       |    |           |      |     |     |     |     |        |      |       |       |       |     |           |      |    |     |     |     |                             |      |     |     |     |     |                           |      |     |       |     |   |

| TMDL Element            | Key Findings and Regulatory Provisions   |             |                   |          |     |     |     |         |     |                    |     |
|-------------------------|--|-------------|-------------------|----------|-----|-----|-----|---------|-----|--------------------|-----|
|                         | <p><b><u>C. Final WLAs for Other NPDES Dischargers</u></b><br/> Concentration-based WLAs are assigned at the Basin Plan objectives for other NPDES dischargers.</p> <table border="1" data-bbox="505 432 1062 625"> <thead> <tr> <th>Constituent</th><th>Allocation (mg/L)</th></tr> </thead> <tbody> <tr> <td>Chloride</td><td>150</td></tr> <tr> <td>TDS</td><td>850</td></tr> <tr> <td>Sulfate</td><td>250</td></tr> <tr> <td>Boron<sup>a</sup></td><td>1.0</td></tr> </tbody> </table> <p>Other NPDES dischargers include, but are not limited to, permitted groundwater cleanup projects that could have significant salt concentrations as a result of the stranded salts in the shallow groundwater basins being treated. To facilitate the cleanup of the basins prior to alternative discharge methods (such as the brine line) being available, interim limits for other NPDES dischargers will be developed on a case-by-case basis and calculated as a monthly average using the 95<sup>th</sup> percentile of available discharge data.</p>   | Constituent | Allocation (mg/L) | Chloride | 150 | TDS | 850 | Sulfate | 250 | Boron <sup>a</sup> | 1.0 |
| Constituent             | Allocation (mg/L)  |             |                   |          |     |     |     |         |     |                    |     |
| Chloride                | 150  |             |                   |          |     |     |     |         |     |                    |     |
| TDS                     | 850  |             |                   |          |     |     |     |         |     |                    |     |
| Sulfate                 | 250  |             |                   |          |     |     |     |         |     |                    |     |
| Boron <sup>a</sup>      | 1.0  |             |                   |          |     |     |     |         |     |                    |     |
| <b>Load Allocations</b> | <p>Dry weather load allocations are assigned as a group allocation to irrigated agricultural discharges. The load allocation (LA) is equal to the average dry weather critical condition flow rate multiplied by the numeric target for each constituent. Load allocations apply in the receiving water at the base of each subwatershed. Because wet weather flows transport a large mass of salts at a typically low concentration, these dischargers should meet water quality objectives during wet weather. Dry weather allocations apply when instream flow rates are below the 86<sup>th</sup> percentile flow and there has been no measurable precipitation in the previous 24 hours.</p> <p>Interim limits are assigned for dry weather discharges from irrigated agricultural areas to allow time to implement appropriate actions. The interim limits are assigned as concentration based receiving water limits set to the 95<sup>th</sup> percentile of the discharger data as a monthly average limit except for chloride. The 95<sup>th</sup> percentile for chloride was 499 mg/L which is higher than the recommended criteria set forth in the Basin Plan for protection of sensitive beneficial uses including aquatic life. Therefore, the interim limit for chloride for Irrigated Agricultural Dischargers is set equal to 230 mg/L to ensure protection of sensitive beneficial uses in the Calleguas Creek watershed.</p> |             |                   |          |     |     |     |         |     |                    |     |

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| TMDL Element            | Key Findings and Regulatory Provisions   |                              |                              |                             |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
|-------------------------|--|------------------------------|------------------------------|-----------------------------|-----------------------------|---------------------------|------|---------------|-------|-----------|------|-----------|-------|--------|-------|-----|--------|-----|-------|-------|-----|-----------|----|-----|----|-----|-----------------|-----|-------|-----|-----|---------|-------|--------|--------|----|
|                         | <b>I. Interims Load Allocations for Irrigated Agricultural Dischargers</b>   |                              |                              |                             |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
|                         | <table><tr><th>Constituent</th><th>Interim Limit (mg/L)</th></tr><tr><td>Boron Total</td><td>1.8</td></tr><tr><td>Chloride Total</td><td>230</td></tr><tr><td>Sulfate Total</td><td>1962</td></tr><tr><td>TDS Total</td><td>3995</td></tr></table>   | Constituent                  | Interim Limit (mg/L)         | Boron Total                 | 1.8                         | Chloride Total            | 230  | Sulfate Total | 1962  | TDS Total | 3995 |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
|                         | Constituent  | Interim Limit (mg/L)         |                              |                             |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
|                         | Boron Total  | 1.8                          |                              |                             |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
|                         | Chloride Total   | 230                          |                              |                             |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
|                         | Sulfate Total  | 1962                         |                              |                             |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
|                         | TDS Total  | 3995                         |                              |                             |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
|                         | <b>II. Final Load Allocations for Irrigated Agricultural Dischargers</b>   |                              |                              |                             |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
|                         | <table><tr><th>Subwatershed</th><th>Chloride Allocation (lb/day)</th><th>TDS Allocation (lb/day)</th><th>Sulfate Allocation (lb/day)</th><th>Boron Allocation (lb/day)</th></tr><tr><td>Simi</td><td>641</td><td>3,631</td><td>1,068</td><td>4</td></tr><tr><td>Las Posas</td><td>2,109</td><td>11,952</td><td>3,515</td><td>N/A</td></tr><tr><td>Conejo</td><td>743</td><td>4,212</td><td>1,239</td><td>N/A</td></tr><tr><td>Camarillo</td><td>59</td><td>336</td><td>99</td><td>N/A</td></tr><tr><td>Pleasant Valley</td><td>305</td><td>1,730</td><td>509</td><td>N/A</td></tr><tr><td>Revolon</td><td>7,238</td><td>41,015</td><td>12,063</td><td>48</td></tr></table>   | Subwatershed                 | Chloride Allocation (lb/day) | TDS Allocation (lb/day)     | Sulfate Allocation (lb/day) | Boron Allocation (lb/day) | Simi | 641           | 3,631 | 1,068     | 4    | Las Posas | 2,109 | 11,952 | 3,515 | N/A | Conejo | 743 | 4,212 | 1,239 | N/A | Camarillo | 59 | 336 | 99 | N/A | Pleasant Valley | 305 | 1,730 | 509 | N/A | Revolon | 7,238 | 41,015 | 12,063 | 48 |
|                         | Subwatershed   | Chloride Allocation (lb/day) | TDS Allocation (lb/day)      | Sulfate Allocation (lb/day) | Boron Allocation (lb/day)   |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
| Simi                    | 641  | 3,631                        | 1,068                        | 4                           |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
| Las Posas               | 2,109  | 11,952                       | 3,515                        | N/A                         |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
| Conejo                  | 743  | 4,212                        | 1,239                        | N/A                         |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
| Camarillo               | 59   | 336                          | 99                           | N/A                         |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
| Pleasant Valley         | 305  | 1,730                        | 509                          | N/A                         |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
| Revolon                 | 7,238  | 41,015                       | 12,063                       | 48                          |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |
| <b>Margin of Safety</b> | <p>A margin of safety (MOS) for the TMDL is designed to address uncertainties in the analysis that could result in targets not being achieved in the waterbodies. The primary uncertainties associated with this TMDL include the impact of implementing a salt balance on receiving water quality. The effect of the salt balance is estimated by the mass-balance and subject to the following uncertainties: 1) the flow rates used to determine the loading capacity may change due to TMDL implementation, 2) the use of a daily load for determining allocations and an annual mass balance to attain water quality objectives, and 3) the sources of salts may not be completely known. Both implicit and explicit MOS are included for this TMDL. The implicit MOS stems from the use of conservative assumptions made during development of the TMDL. The mass of salts transported out of the watershed during wet weather is on average over 15% of the annual mass of salts introduced to the watershed for all constituents. The salt export during wet weather ranges from 7% to 41% for TDS, 9% to 48% for chloride, and 13% to 89% for sulfate of the export required to meet a salt balance in the watershed. This mass is not used to determine compliance with the salt balance and represents a significant implicit margin of safety. The model also contains a component that serves to model the impact of “stranded” salts in the watershed. The component assumes low irrigation efficiencies and the ability of all salts applied as irrigation water anywhere in the watershed to be discharged to receiving water in</p> |                              |                              |                             |                             |                           |      |               |       |           |      |           |       |        |       |     |        |     |       |       |     |           |    |     |    |     |                 |     |       |     |     |         |       |        |        |    |

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|--|---|
|  | <p>critical years. This likely overestimates the impact of “stranded” salts and results in a higher concentration of salts due to irrigation in the receiving water.</p> <p>An explicit MOS of 10% is applied to the adjustment factors for the POTWs to account for the uncertainties in the TMDL analysis. By applying the margin of safety to the adjustment factor, more salts are required to be exported than are necessary to offset the background loads in the watershed. This additional salt export provides a margin of safety on the salt balance to address uncertainties that the salt balance will result in compliance with water quality objectives. The 10% explicit MOS is determined sufficient to address the uncertainties associated with the estimated impact of the salt balance on receiving water loadings.</p>   |
| <b>Future Growth</b>                               | <p>Ventura County accounts for slightly more than 2% of the state’s residents with a population of 753,197 (US Census Bureau, 2000). GIS analysis of the 2000 census data yields a population estimate of 334,000 for the CCW, which equals about 44% of the county population. According to the Southern California Association of Governments (SCAG), growth in Ventura County averaged about 51% per decade from 1900-2000; with growth exceeding 70% in the 1920s, 1950s, and 1960s. Significant population growth is expected to occur within and near present city limits until at least 2020. Increased growth requires additional water. Therefore, future growth could result in increased loads of salts being imported into the watershed. However, the TMDL implementation plan is designed to maintain a salts balance in the watershed. If additional salts are imported into the watershed, a larger volume of salts will also be exported out of the watershed to maintain the balance. Consequently, increased imports from future growth are not expected to result in higher concentrations in receiving waters.</p> |
| <b>Seasonal Variations and Critical Conditions</b> | <p>The critical condition for salts is during dry weather periods. During wet weather, stormwater flows dilute the salt discharges and receiving water concentrations are significantly lower than water quality objectives. Dry weather, defined as days with flows lower than the 86<sup>th</sup> percentile flow and no measurable precipitation, is a critical condition regardless of the dry weather flows in the stream. The driving conditions for exceedances of water quality objectives are the concentrations in the water supply (which is driven by surface water concentrations in Northern California) and the previous year’s annual precipitation and corresponding flows. Elevated salts concentrations during dry weather occur when stranded salts are discharged into the surface water after higher than average rainfall years. The elevated concentrations occur during years when the previous annual flow is</p>   |

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| TMDL Element                                      | Key Findings and Regulatory Provisions   |
|---|--|
|   | <p>greater than the 75<sup>th</sup> percentile of the annual flows for the watershed (critical year). The higher concentrations occur during the dry periods of critical years regardless of whether the annual flow for the critical year is an average flow year, higher than average year, or lower than average year. The key parameter determining a critical year is the total annual flow volume for the previous year. Based on model results, four critical years were defined based on modeled results that resulted in receiving water concentrations greater than the 99<sup>th</sup> percentile concentration during at least 10% of the dry period. The critical years identified from the model occur with conditions similar to what occurred in 1978, 1979, 1983 and 1998.</p>  |
| <p><b>Special Studies and Monitoring Plan</b></p> | <p><b><u>Special Studies</u></b></p> <p>Several special studies are planned to improve understanding of key aspects related to achievement of WLAs and LAs for the Salts TMDL.</p> <p><b><i>1. Special Study #1 (Optional) – Develop Averaging Periods and Compliance Points</i></b></p> <p>The TMDL technical report has provided information that shows instantaneous salts objectives may not be required to protect groundwater recharge and agricultural beneficial uses. It is possible that the beneficial uses will be protected and a salt balance achieved without achieving instantaneous water quality objectives in all reaches of the watershed. This optional special study is included to allow an investigation of averaging periods for the salts objectives in the CCW. Additionally, this study will investigate the locations of beneficial uses and the possibility of identifying compliance points for the salts objectives at the point of beneficial use impacts. The use of compliance points would alleviate the need to develop site-specific objectives for the reaches of the watershed upstream of the POTW discharges (described in Special Study #3) while still ensuring the protection of beneficial uses. Sensitive beneficial uses are not present in the upper reaches and POTW discharges dilute the salts from the upper reaches and may allow compliance with the objectives at the point of groundwater recharge downstream. This is an optional special study to be conducted if desired by the stakeholders or determined necessary or appropriate by the Executive Officer.</p> <p><b><i>2. Special Study #2 (Optional) – Develop Natural Background Exclusion</i></b></p> <p>Discharges of groundwater from upstream of the Simi Valley WQCP (Reaches 7 and 8) and Hill Canyon WWTP (Reaches 12 and 13) and</p> |

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|--------------|---|
|              | <p>downstream of the Camrosa WRF (Reach 3) contain high salts concentrations. Natural marine sediments may contribute to the high concentrations in those discharges. This special study would evaluate whether or not the groundwater discharges in these areas would qualify for a natural sources exclusion. The special study could follow a 'reference system/anti-degradation approach' and/or a 'natural sources exclusion approach' for any allocations included in this TMDL that are proven unattainable due to the magnitude of natural sources. The purpose of a 'reference system/anti-degradation approach' is to ensure water quality is at least as good as an appropriate reference site and no degradation of existing water quality occurs where existing water quality is better than that of a reference site. The intention of a 'natural sources exclusion approach' is to ensure that all anthropogenic sources of salts are controlled such that they do not cause exceedances of water quality objectives. These approaches are consistent with state and federal anti-degradation policies (State Board Resolution No. 68-16 and 40 C.F.R. 131.12). This is an optional special study to be conducted if desired by the stakeholders or determined necessary for establishing a natural sources exclusion by the Executive Officer.</p> <p><b><i>3. Special Study #3 (Optional) – Develop Site-Specific Objectives</i></b></p> <p>The TMDL implementation plan provides for actions to protect the agricultural and groundwater recharge beneficial uses in the CCW. As shown in the linkage analysis, some downstream reaches may not achieve the water quality objectives through implementation of this TMDL because of the transport of salts out of the watershed through those reaches. Consequently, an optional special study is included to allow the CCW stakeholders to pursue development of site-specific objectives for salts for reaches upstream of the Hill Canyon WWTP and Simi Valley WQCP (Reaches 7, 8, 12, and 13), Calleguas Creek Reach 3, Revolon Slough (Reach 4) and Beardsley Wash (Reach 5). These alternative numeric water quality objectives would be developed based on the beneficial uses to be protected in a reach and the attainability of the current water quality objectives. This is an optional special study to be conducted if desired by the stakeholders or determined necessary or appropriate by the Executive Officer.</p> <p><b><i>4. Special Study #4 (Optional) – Develop Site-Specific Objectives for Drought Conditions</i></b></p> <p>During drought conditions, the load of salts into the watershed increases as a result of increasing concentrations in imported water. Stakeholders in the CCW cannot control the increased mass entering the watershed from the water supply. However, the stakeholders do have the ability to</p> |

| TMDL Element | Key Findings and Regulatory Provisions  |
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|              | <p>manage the salts within the watershed to protect beneficial uses and export the additional mass of salts out of the watershed. If necessary, site-specific objectives may be developed to address situations that result in higher imported water salt concentrations to allow management of the salts and protection of beneficial uses. This special study may be combined with Special Study #3 if desired.</p> <p>This is an optional special study to be conducted if desired by the stakeholders or determined necessary or appropriate by the Executive Officer of the Regional Board.</p> <p><b><i>5. Special Study #5 (Optional) – Develop Site-Specific Objectives for Sulfate</i></b></p> <p>Sulfate is a necessary nutrient for plant growth and sulfate containing products are often applied to agriculture as fertilizers and pesticides. Therefore, site-specific objectives may be investigated and developed for sulfate that more accurately protects agricultural supply beneficial uses. Additionally, this study could evaluate whether or not a sulfate balance is necessary to maintain in the watershed. This special study may be combined with Special Study #3 and/or #4 if desired.</p> <p>This is an optional special study to be conducted if desired by the stakeholders or determined necessary or appropriate by the Executive Officer of the Regional Board.</p> <p><b><u>Monitoring Plan</u></b></p> <p>To ensure that the goal of a salts balance in the watershed is being achieved and water quality objectives are being met, a comprehensive method of tracking inputs and outputs to the watershed will be developed. A monitoring plan will be submitted to the RWQCB for Executive Officer approval within six months of the effective date of the CCW Salts TMDL. Monitoring will begin one year after Executive Officer approval of the monitoring plan to allow time for the installation of automated monitoring equipment.</p> <p><b><i>1. Input Tracking</i></b></p> <p>Inputs to the watershed are tracked through four mechanisms: 1) Information on the import of State Water Project water is readily available and provides information on the mass of salts brought into the watershed; 2) Groundwater pumping records provide information on the mass of salts imported into the watershed from deep aquifer pumping; 3) Import records of water supply from the Santa Clara River can be obtained to determine the mass of salts imported through this source; 4) Monitoring data on imported water quality can be compared to</p> |



| TMDL Element | Key Findings and Regulatory Provisions  |
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|              | <p>monitoring of effluent quality to estimate the amount of salts added through human use of the water.</p> <p><b>2. <i>Output Tracking and Determining Compliance with Water Quality Objectives</i></b></p> <p>Outputs from the watershed will be tracked through surface water monitoring at key locations in the watershed and monitoring of discharges to the brine line. Monitoring will include both flow and quality. Compliance with water quality objectives will be determined at key locations where beneficial uses occur in the watershed. The stations used for output tracking will also be used to determine compliance with water quality objectives. The monitoring program will determine if the TMDL compliance points are protective of the beneficial uses for the subwatershed. If the monitoring determines that the compliance points are not protective of beneficial uses, an alternative compliance point will be selected. The Executive Officer may revise the TMDL compliance point based on the result of the monitoring. Additionally, if other places in the watershed are identified where sensitive beneficial uses occur, water quality monitoring stations can be added to determine compliance with water quality objectives. For the RWRMP, three new or upgraded automated flow measuring and sample collection stations will be installed at three points on the stream system to continuously record flow and various water quality parameters during dry weather. Preliminary monitoring locations include Arroyo Conejo in Hill Canyon, Conejo Creek at Baron Brothers Nursery and Calleguas Creek at University Drive. For the NRRWMP, one new or upgraded automated flow measuring and sample collection station will be added downstream of Simi Valley at the point at which groundwater recharge begins. A preliminary monitoring location is at Hitch Blvd. where an existing flow gauging station exists. However, the amount of groundwater recharge upstream of this site will need to be evaluated to determine the exact monitoring location. For Revolon Slough, the existing monitoring station at Wood Road. will be used to monitor quality and flow on Revolon Slough to determine the outputs from the Revolon portion of the Pleasant Valley subwatershed.</p> <p>Additional land use monitoring will be conducted concurrently at representative agricultural and urban runoff discharge sites as well as at POTWs in each of the subwatersheds and analyzed for chloride, TDS, sulfate, and boron. The location of the land use stations will be determined before initiation of the Calleguas Creek Watershed TMDL Monitoring Program (CCWTMP). All efforts will be made to include at least two wet weather sampling events during the wet season (October through April) during a targeted storm event.</p> |

| TMDL Element               | Key Findings and Regulatory Provisions   |
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|                            | <p data-bbox="508 289 1382 359"><b>3. <i>Reporting and Modification of the Calleguas Creek Watershed TMDL Monitoring Program</i></b></p> <p data-bbox="508 401 1414 688">A monitoring report will be prepared annually within six months after completion of the final event of the sampling year. An adaptive management approach to the CCWTMP will be adopted as it may be necessary to modify aspects of the CCWTMP. Results of sampling carried out through the CCWTMP and other programs within the CCW may be used to modify this plan, as appropriate. These modifications will be summarized in the annual report. Possible modifications could include, but are not limited to the, following:</p> <ul data-bbox="508 730 1406 1018" style="list-style-type: none"> <li>▪ The inclusion of additional land use stations to accurately characterize loadings;</li> <li>▪ The removal of land use stations if it is determined they are duplicative (<i>i.e.</i>, a land use site in one subwatershed accurately characterize the land use in other subwatersheds);</li> <li>▪ The inclusion of additional in-stream sampling stations; and</li> <li>▪ The elimination of analysis for constituents no longer identified in land use and/or instream samples.</li> </ul> <p data-bbox="508 1060 1398 1161">If a coordinated and comprehensive monitoring plan is developed and meets the goals of this monitoring plan that plan should be considered as a replacement for the CCWTMP.</p> <p data-bbox="508 1203 792 1236"><b>4. <i>Other Monitoring</i></b></p> <p data-bbox="508 1278 1403 1455">Other surface water and groundwater monitoring will be implemented as necessary to assess the impacts of the implementation actions and adjust the activities as necessary to protect beneficial uses and achieve the salts balance. Examples of additional monitoring that may be conducted include:</p> <ul data-bbox="508 1465 1414 1642" style="list-style-type: none"> <li>▪ Monitoring under Phase 2 and 3 of the RWRMP to evaluate the effects of replenishment water releases and groundwater treatment and releases.</li> <li>▪ Monitoring to assess the impacts of management of the Simi Basin groundwater dewatering wells under Phase 1 of the NRRWMP.</li> </ul> |
| <b>Implementation Plan</b> | <p data-bbox="508 1686 1422 1892">The identified implementation actions provided in this TMDL will result in a salt balance in the stream and are expected to result in compliance with the allocations. The implementation plan is comprised of actions that directly impact discharges to the receiving water and actions that will indirectly impact discharges to receiving water. Responsible agencies and jurisdictions shall consider minimum flow</p>  |

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|              | <p>requirements that may be imposed by federal or state regulatory agencies when implementing actions to comply with this TMDL. Should the proposed implementation actions not result in compliance with objectives and site-specific objective are not adopted, additional implementation actions may be required to achieve the water quality objectives. Any plans or programs for implementation of the TMDL for the Southern Reaches of the CCW upstream of the Conejo Creek Diversion and the Northern Reaches of the CCW, that would result in significant reduction in instream flow, including but not limited to, an application for Water Reclamation Requirements (WRRs) shall include an analysis of potential impacts to instream beneficial uses that could result from the reclamation of wastewater or extracted groundwater. For Phase 1 of the Southern Reaches of the CCW Renewable Water Resource Management Program (RWRMP), Water Rights Decision 1638 from SWRCB satisfies these requirements and establishes the minimum flow requirements for Conejo and Calleguas Creek downstream of the Conejo Creek Diversion Project. Any WRRs shall require that timely written notice be given to the Regional Board, and to any regulatory agency whose instream flow is at issue, if diversion or reclamation of waste water or extraction of groundwater results or threatens to result in (or contributes to) insufficient flows to maintain beneficial uses. The Executive Officer shall issue an order pursuant to Water Code section 13267, which requires responsible agencies and jurisdictions to file a technical report if reclamation of waste water or extraction of groundwater results or threatens to result in (or contributes to) insufficient flows to maintain beneficial uses. The order shall require that the technical report identify the causes of the impairments or threatened impairments, and identifies options to abate the conditions. The Regional Board shall reconsider this TMDL if adequate flows to protect instream beneficial uses are not maintained.</p> <p>The implementation actions described in the TMDL represent a range of activities that could be conducted to achieve a salts balance in the watershed. Future considerations may result in other actions being implemented rather than the options presented. However, any proposed actions will be reviewed using the salt balance model to ensure the action does not adversely impact other implementation actions in the watershed or the salt balance of a downstream subwatershed.</p> <p>Currently, the implementation plan is presented in phases with a tentative schedule for each phase. The implementation of projects may occur earlier than planned or begin during an earlier phase. Additionally, many of the implementation actions require the use of the Regional Salinity Management Conveyance (RSMC or brine line). As such, the implementation schedule for those actions will be linked the</p> |

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| TMDL Element  | Key Findings and Regulatory Provisions  |                         |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
|---|---|-------------------------|------------------------|-------------------------|--------------------|---|---------|-----------------|--|----------|---|--------------------------|---------|--------------|------------------------------------|--------|--------------|------------------------------------|--------|--------------|------------------------------------|----------|---------------|---|---------|---------------|---|---------|---------------|---|----------|---------------|------------------|----------|----------------|--|---------|----------------|--|---------|----------------|--|----------|----------------|------------------|----------|-----------------------|--|----------|
|   | <p>construction schedule for the RSMC.</p> <p>The implementation plan for the Salts TMDL includes regional and subwatershed specific implementation actions. There are four key structural elements to the regional implementation: Regional Salinity Management Conveyance (RSMC), Water Conservation, Water Softeners, and Best Management Practices for Irrigated Agriculture. Subwatershed implementation includes Renewable Water Resource Management Program (RWRMP) for the Southern Reaches and Northern Reach Renewable Water Management Plan (NRRWMP). Detailed discussion for each implementation element including description of the action, status and schedule for implementing the action, and a summary of the expected contribution to achievement of the salts balance are provided in the Staff Report and Technical Report for this TMDL. Proposed implementation actions in the watershed, responsible agencies, and the estimated completion date based on the effective date of the TMDL are summarized below.</p> <p><b>Summary of Proposed Implementation Actions</b></p> <table><tr><th>Action</th><th>Responsible Agency/ies</th><th>Schedule for Completion</th></tr><tr><td>Water Conservation</td><td>POTWs, Permitted Stormwater Dischargers, and Other NPDES Permittees</td><td>3 years</td></tr><tr><td>Water Softeners</td><td>POTWs and Permitted Stormwater Dischargers</td><td>10 years</td></tr><tr><td>Best Management Practice for Agricultural Dischargers</td><td>Agricultural Dischargers</td><td>2 years</td></tr><tr><td>RMSC Phase 1</td><td>Calleguas Municipal Water District</td><td>2 year</td></tr><tr><td>RMSC Phase 2</td><td>Calleguas Municipal Water District</td><td>5 year</td></tr><tr><td>RMSC Phase 3</td><td>Calleguas Municipal Water District</td><td>10 years</td></tr><tr><td>RWRMP Phase 1</td><td>Camrosa Water District, Camarillo Sanitation District</td><td>3 years</td></tr><tr><td>RWRMP Phase 2</td><td>Camrosa Water District, City of Thousand Oaks</td><td>6 years</td></tr><tr><td>RWRMP Phase 3</td><td>Camrosa Water District, City of Thousand Oaks</td><td>10 years</td></tr><tr><td>RWRMP Phase 4</td><td>To Be Determined</td><td>15 years</td></tr><tr><td>NRRWMP Phase 1</td><td>Calleguas Municipal Water District, City of Simi Valley, Ventura County Water Work-District No.1</td><td>3 years</td></tr><tr><td>NRRWMP Phase 2</td><td>Calleguas Municipal Water District, Ventura County Water Work-District No.1, City of Camarillo</td><td>7 years</td></tr><tr><td>NRRWMP Phase 3</td><td>City of Camarillo, City of Simi Valley</td><td>10 years</td></tr><tr><td>NRRWMP Phase 4</td><td>To Be Determined</td><td>15 years</td></tr><tr><td>Final Completion Date</td><td></td><td>15 years</td></tr></table> | Action                  | Responsible Agency/ies | Schedule for Completion | Water Conservation | POTWs, Permitted Stormwater Dischargers, and Other NPDES Permittees | 3 years | Water Softeners | POTWs and Permitted Stormwater Dischargers | 10 years | Best Management Practice for Agricultural Dischargers | Agricultural Dischargers | 2 years | RMSC Phase 1 | Calleguas Municipal Water District | 2 year | RMSC Phase 2 | Calleguas Municipal Water District | 5 year | RMSC Phase 3 | Calleguas Municipal Water District | 10 years | RWRMP Phase 1 | Camrosa Water District, Camarillo Sanitation District | 3 years | RWRMP Phase 2 | Camrosa Water District, City of Thousand Oaks | 6 years | RWRMP Phase 3 | Camrosa Water District, City of Thousand Oaks | 10 years | RWRMP Phase 4 | To Be Determined | 15 years | NRRWMP Phase 1 | Calleguas Municipal Water District, City of Simi Valley, Ventura County Water Work-District No.1 | 3 years | NRRWMP Phase 2 | Calleguas Municipal Water District, Ventura County Water Work-District No.1, City of Camarillo | 7 years | NRRWMP Phase 3 | City of Camarillo, City of Simi Valley | 10 years | NRRWMP Phase 4 | To Be Determined | 15 years | Final Completion Date |  | 15 years |
| Action  | Responsible Agency/ies  | Schedule for Completion |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| Water Conservation                                    | POTWs, Permitted Stormwater Dischargers, and Other NPDES Permittees   | 3 years                 |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| Water Softeners                                       | POTWs and Permitted Stormwater Dischargers  | 10 years                |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| Best Management Practice for Agricultural Dischargers | Agricultural Dischargers  | 2 years                 |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| RMSC Phase 1  | Calleguas Municipal Water District  | 2 year                  |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| RMSC Phase 2  | Calleguas Municipal Water District  | 5 year                  |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| RMSC Phase 3  | Calleguas Municipal Water District  | 10 years                |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| RWRMP Phase 1   | Camrosa Water District, Camarillo Sanitation District   | 3 years                 |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| RWRMP Phase 2   | Camrosa Water District, City of Thousand Oaks   | 6 years                 |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| RWRMP Phase 3   | Camrosa Water District, City of Thousand Oaks   | 10 years                |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| RWRMP Phase 4   | To Be Determined  | 15 years                |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| NRRWMP Phase 1  | Calleguas Municipal Water District, City of Simi Valley, Ventura County Water Work-District No.1  | 3 years                 |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| NRRWMP Phase 2  | Calleguas Municipal Water District, Ventura County Water Work-District No.1, City of Camarillo  | 7 years                 |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| NRRWMP Phase 3  | City of Camarillo, City of Simi Valley  | 10 years                |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| NRRWMP Phase 4  | To Be Determined  | 15 years                |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |
| Final Completion Date                                 |   | 15 years                |                        |                         |                    |   |         |                 |  |          |   |                          |         |              |                                    |        |              |                                    |        |              |                                    |          |               |   |         |               |   |         |               |   |          |               |                  |          |                |  |         |                |  |         |                |  |          |                |                  |          |                       |  |          |

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|              | <p>The sections below provide discussion of the application of the final WLAs for POTWs, specific permitted stormwater discharges, other NPDES dischargers, and agricultural dischargers.</p> <p><b>I. POTWs, permitted stormwater discharges, and other NPDES discharges</b></p> <p>The final WLAs will be included for permitted stormwater discharges, POTWs, and other NPDES discharges in accordance with the compliance schedules provided in Table 7-22.2. The Regional Board may revise these WLAs based on additional information developed through special studies and/or monitoring conducted as part of this TMDL.</p> <p>▪ <b>POTWs</b></p> <p>WLAs established for the POTWs in this TMDL will be implemented through NPDES permit limits. Compliance will be determined through monitoring of final effluent discharge as defined in the NPDES permit.</p> <p>The proposed permit limits will be applied as end-of-pipe mass-based monthly average effluent limits. Daily maximum effluent limit is not required because chloride is not expected to have an immediate or acute effect on the beneficial uses. Compliance with the minimum salt export requirements for POTWs will be based on the salt export from the subwatershed to which they discharge. The mechanisms for meeting the minimum salt export requirements and for monitoring progress towards meeting those requirements will be included in the monitoring program work plan and approved by the Executive Officer.</p> <p>At the end of each year, the amount of salt exported will be compared to the minimum required salt export. POTW allocations will be reduced using the adjustment factor if both of the following conditions occur:</p> <ul style="list-style-type: none"> <li>• The annual dry weather salt exports from the subwatershed to which the POTW discharges are below the minimum required exports for the previous year; and</li> <li>• The water quality objectives were exceeded in the receiving water at the base of the subwatershed</li> </ul> <p>The POTW allocations will be reduced for the following year by</p> |

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|              | <p>the difference between the minimum required salt export and the actual amount exported. The discharger shall be notified by the Regional Board that the assigned WLAs are reduced and the reduced effluent limits shall be applied for the next year. If the POTW allocations are reduced, the POTW will need to increase the amount of salt export or reduce the mass of salts discharged from the POTW before the end of the following year when the adjustment will be evaluated again.</p> <p>POTWs can only request to adjust the assigned WLAs upwards using the adjustment factor under limited conditions provided below:</p> <ul style="list-style-type: none"> <li>• Water quality objectives are met in the receiving waters;</li> <li>• Imported water supply chloride concentrations exceed 80 mg/L; and</li> <li>• Discharges from the POTW exceed the allocation.</li> </ul> <p>When imported water supply chloride concentrations exceed 80 mg/L, the POTW will monitor the effluent to determine if the wasteload allocation is exceeded. If the wasteload allocation is exceeded and the POTW desires an adjustment to the allocation, the POTW will submit documentation of the water supply chloride concentrations, the receiving water chloride concentration, the effluent mass, and the evidence of increased salt exports to offset the increased discharges from the POTW to the Regional Board for approval. The adjustment factor will apply for three months and the POTW must submit the evidence outlined above every three months to keep the adjustment factor active. As long as the required information is submitted, the adjustment factor will be in effect upon notification in writing from the RWQCB.</p> <p>▪ <b>Urban Stormwater Discharger</b></p> <p>A group mass-based dry weather WLA has been developed for all permitted stormwater discharges, including municipal separate storm sewer systems (MS4s), and general industrial and construction stormwater permits. USEPA regulation allows allocations for NPDES-regulated stormwater discharges from multiple point sources to be expressed as a single categorical WLA when the data and information are insufficient to assign each source or outfall individual WLAs (40 CFR 130). The grouped allocation will apply to all NPDES-regulated municipal stormwater discharges in the CCW. MS4 WLAs will be incorporated into the NPDES</p> |

| TMDL Element | Key Findings and Regulatory Provisions   |
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|              | <p>permit as receiving water limits measured in-stream at the base of each subwatershed.</p> <ul style="list-style-type: none"> <li>▪ <b>Other NPDES Dischargers</b></li> </ul> <p>WLAs established for other NPDES permitted dischargers in this TMDL, including minor non-stormwater permittees (other than Camrosa WRP) and general non-stormwater permittees, will be implemented through NPDES permit limits. The proposed permit limits will be applied as end-of-pipe concentration-based effluent limits, and compliance determined through monitoring of final effluent discharge as defined in the NPDES permit.</p> <p><b>II. Agriculture</b></p> <p>Load allocations for salts will be implemented through Conditional Waiver of Discharges from Irrigated Lands (Conditional Waiver Program) adopted by the LARWQCB on November 3, 2005. Compliance with LAs will be measured in-stream at the base of the subwatersheds and will be achieved through the implementation of Best Management Practices (BMPs) consistent with the Conditional Waiver Program. The Conditional Waiver Program requires the development of an agricultural water quality management plan (AWQMP) to address pollutants that are exceeding receiving water quality objectives as a result of agricultural discharges. Therefore, implementation of the load allocations will be through the development of an agricultural management plan for salts. Implementation of the load allocations will also include the coordination of BMPs being implemented under other required programs to ensure salts discharges are considered in the implementation. Additionally, agricultural dischargers will participate in educational seminars on the implementation of BMPs as required under the Conditional Program. Studies are currently being conducted to assess the extent of BMP implementation and provide information on the effectiveness of BMPs for agriculture. This information will be integrated into the AWQMP that will guide the implementation of agricultural BMPs in the Calleguas Creek watershed. After implementation of these actions, compliance with the allocations and TMDL will be evaluated and the allocations reconsidered if necessary based on the special studies and monitoring plan section of the implementation plan.</p> <p>As shown in Table 7-22.2, implementation of LAs will be conducted over a period of time to allow for implementation of the BMPs, as well as coordination with special studies and</p> |

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|              | implementation actions resulting from other TMDL Implementation Plans (Nutrient, Historic Pesticides and PCBs, Sediment, Metals, Bacteria, etc.). |



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**Table 7-22.2 Calleguas Creek Watershed Salts TMDL: Implementation Schedule**

| Item | Implementation Action  | Responsible Party   | Completion Date  |
|------|--|---|--|
| 1    | Effective date of interim Salts TMDL waste load allocations (WLAs)   | POTWs, Permitted Stormwater Dischargers <sup>1</sup> (PSD), and Other NPDES Permittees              | Effective date of the amendment                            |
| 2    | Effective date of interim Salts TMDL load allocations (LAs)  | Agricultural Dischargers  | Effective date of the amendment                            |
| 3    | Responsible jurisdictions and agencies shall submit compliance monitoring plan to the Los Angeles Regional Board for Executive Officer approval.   | POTWs, PSD, Other NPDES Permittees, and Agricultural Dischargers                                    | 6 months after effective date of the TMDL                  |
| 4    | Responsible jurisdictions and agencies shall begin monitoring as outlined in the approved monitoring plan.   | POTWs, PSD, Other NPDES Permittees, and Agricultural Dischargers                                    | 1 year after monitoring plan approval by Executive Officer |
| 5    | Responsible jurisdictions and agencies shall submit workplans for the optional special studies.  | POTWs, PSD, Other NPDES Permittees, and Agricultural Dischargers                                    | Within 10 years of effective date of the TMDL              |
| 6    | Responsible jurisdictions and agencies shall submit results of the special studies.  | POTWs, PSD, Other NPDES Permittees, and Agricultural Dischargers                                    | 2 years after workplan approval by Executive Officer       |
| 7    | Re-evaluation of the interim WLAs and interim LAs for boron, chloride, sulfate, and TDS based on new data. Responsible jurisdictions and agencies shall demonstrate that implementation actions have reduced the boron, sulfate, TDS, and chloride imbalance by 20%. | POTWs, PSD, Other NPDES Permittees, and Agricultural Dischargers                                    | 3 years after effective date of the TMDL                   |
| 8    | Re-evaluation of the interim WLAs and interim LAs for boron, chloride, sulfate, and TDS based on new data. Responsible jurisdictions and agencies shall demonstrate that implementation actions have reduced the boron, sulfate, TDS and chloride imbalance by 40%.  | POTWs, PSD, Other NPDES Permittees, and Agricultural Dischargers                                    | 7 years after effective date of the TMDL                   |
| 9    | Re-evaluation of the interim WLAs and interim LAs for boron, chloride, sulfate, and TDS based on new data. Responsible jurisdictions and agencies shall demonstrate that implementation actions have reduced the boron, sulfate, TDS, and chloride imbalance by 70%. | POTWs, Permitted Stormwater Dischargers (PSD), Other NPDES Permittees, and Agricultural Dischargers | 10 years after effective date of the TMDL                  |
| 10   | The Los Angeles Regional Board shall reconsider this TMDL to re-evaluate numeric targets, WLAs, LAs and the implementation schedule based on the results of the special studies and/or compliance monitoring.  | The Regional Board  | 12 years after effective date of the TMDL                  |
| 11   | Responsible jurisdictions and agencies shall demonstrate that the watershed has achieved an annual boron, sulfate, TDS, and chloride balance.  | POTWs, PSD, Other NPDES Permittees, and Agricultural Dischargers                                    | 15 years after effective date of the TMDL                  |
| 12   | The POTWs and non-storm water NPDES permits shall achieve WLAs, which shall be expressed as NPDES mass-based effluent limitation specified in accordance with federal regulations and state policy on water quality control.   | POTWs and Other NPDES Permittees  | 15 years after effective date of the TMDL                  |

<sup>1</sup> Permitted stormwater dischargers that are responsible parties to this TMDL include the Municipal Stormwater Dischargers (MS4s) of the Cities of Camarillo, Moorpark, Thousand Oaks, County of Ventura, Ventura County Watershed Protection District, and general industrial and construction permittees.

**Attachment A to Resolution No. R4-2007-016**

| <b>Item</b> | <b>Implementation Action</b>   | <b>Responsible Party</b>   | <b>Completion Date</b>                    |
|-------------|--|--|---|
| 13          | Irrigated agriculture shall achieve LAs, which will be implemented through the Conditional Waiver for Irrigated Lands as mass-based receiving water limits.  | Agricultural Dischargers   | 15 years after effective date of the TMDL |
| 14          | The permitted stormwater dischargers shall achieve WLAs, which shall be expressed as NPDES mass-based limits specified in accordance with federal regulations and state policy on water quality control. | Permitted Stormwater Dischargers                                 | 15 years after effective date of the TMDL |
| 15          | Water quality objectives will be achieved at the base of the subwatersheds designated in the TMDL.   | POTWs, PSD, Other NPDES Permittees, and Agricultural Dischargers | 15 years after effective date of the TMDL |