



WOOD RODGERS

December 5, 2005

Ms. Sharon L. Wilcox, General Manager
Orange Vale Water Company
9031 Central Avenue
Orange Vale, California 95662-0800

Dear Ms. Wilcox:

Subject: Orange Vale Water Company (8268.001) – 2005 Urban Water Management Plan

Enclosed are 12 copies of the 2005 Urban Water Management Plan that Wood Rodgers, Inc. has prepared for the Orange Vale Water Company (OVWC). Single copies of the Urban Water Management Plan, which is scheduled for adoption by the OVWC Board of Directors, should be forwarded to:

California Department of Water Resources
California State Library
Orange Vale Local Library

Wood Rodgers appreciates the opportunity to work with the Orange Vale Water Company on this assignment.

Sincerely,



Jeffrey E. Twitchell, P.E.

Enclosure (12)



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Executive Summary

The Urban Water Management Act (Act) became part of the California Water Code with the passage of Assembly Bill 797 during the 1983-1984 regular session of the California Legislature. The California Water Code requires every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to adopt and submit an Urban Water Management Plan (UWMP) every five years to the California Department of Water Resources (DWR).

The Orange Vale Water Company (OVWC) is a retail water supplier to over 5,000 customers with collective demands that regularly exceed 4,000 Acre-Feet Annually (AFA) for municipal purposes and, as such, is required to submit an updated Urban Water Management Plan (UWMP). OVWC submitted its initial UWMP in 1995, followed by an update in November 2000.

The 2005 UWMP presented in this document addresses the current OVWC System, which provides water to approximately 5,330 customers within the OVWC's service area. In accordance with the Act and subsequent amendments, the required components of the 2005 UWMP Update include:

- A description of the water service area.
- A description of the existing and planned surface and groundwater sources available.
- Estimates of past, present, and projected water use.
- A description of opportunities for water transfers or exchanges.
- A description of water conservation Demand Management Measures (DMMs) already in place and planned, and other conservation measures.
- A description of the Water Shortage Contingency Plan.
- Recycled water opportunities.

The 2005 UWMP for OVWC presents an analysis of the water supply sources and water demands of OVWC to determine the water reliability through the year 2030. In addition, the UWMP describes the DMMs that have been or plan to be implemented in its service area to reduce water demands as part of the water conservation program.

The UWMP provides information on a water shortage contingency plan to be implemented during drier water-years when less than 950,000 acre-feet of unimpaired inflow enters Folsom Reservoir. The average annual inflow to Folsom Reservoir is 2.5 million acre-feet per year. The UWMP is intended to determine the projected OVWC water demands and identify the available water supplies to OVWC for meeting the water demands over the next 25 years





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through the year 2030. The UWMP is also intended to identify any shortfalls in water supply that may exist in single or multiple dry-year conditions.

The 2005 UWMP for OVWC indicates that there will be sufficient water supplies to meet its future demands, provided the OVWC implements a timely conversion of its existing stand-by emergency ground water system into an active conjunctive use program for dry-year conditions. Presently OVWC relies upon its wholesale provider San Juan Water District (SJWD) to supply treated water year-round during peak-day, peak-hour, and fire-flow conditions. During future dry-year conditions when inflows to Folsom Reservoir drop well below the average annual inflow of 2.5 million acre-feet to levels below 950,000 acre-feet the available supply from SJWD may be limited to levels below projected demands. During these dry-year conditions (which are described in detail in Section 3.3 of this UWMP) OVWC may be required to make up the difference in surface water supplies by collectively implementing water conservation measures and improving its groundwater system to help offset peak-season and peak-hour surface water supplies presently supplied by SJWD.





Section 1 – Introduction

1.1 Urban Water Management Planning Act

The Urban Water Management Act (Act) became part of the California Water Code with the passage of Assembly Bill 797 during the 1983-1984 regular session of the California Legislature. The California Water Code requires every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to adopt and submit an Urban Water Management Plan (UWMP) every five years to the California Department of Water Resources (DWR). The specific planning requirements are in the California Water Code Division 6, Part 2.6 Urban Water Management Planning. The complete text of the 2005 UWMP reporting requirements is contained in Appendix A.

In accordance with the Act and subsequent amendments, the required components of the 2005 Plan Update include:

- A description of the water service area.
- A description of the existing and planned surface and groundwater sources available.
- Estimates of past, present, and projected water use.
- A description of opportunities for water transfers or exchanges.
- A description of water conservation Demand Management Measures (DMMs) already in place and planned, and other conservation measures.
- A description of the Water Shortage Contingency Plan.
- Recycled water opportunities.

The Orange Vale Water Company (OVWC) 2005 UWMP is divided into 6 sections. Section 1 is an introduction to the Urban Water Management Act requirements and describes the plan implementation. Section 2 provides the background and description of the service area. Section 3 describes water supply sources, discusses water supply reliability planning and the Orange Vale Water Company's past, current, and projected water use. Section 4 describes the Demand Management Measures (DMM) that are currently implemented within the Orange Vale Water Company service area. Section 5 provides information on the water shortage contingency planning, and Section 6 discusses recycled water opportunities.

1.2 Agency Coordination

As a retail water provider OVWC receives its supply of treated surface water from the local wholesale provider of San Juan Water District (SJWD). In connection with updating their respective Urban Water Management Plans for both OVWC and SJWD, the retail and wholesale





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providers have coordinated their efforts to provide comprehensive and accurate UWMPs. The OVWC has made copies of its draft UWMP available for review by SJWD and Sacramento County.

1.3 Public Participation

The Act requires the encouragement of the public participation and a public hearing regarding the UWMP. The draft UWMP was made available to the public two weeks prior to a public meeting held on November 1, 2005. Following the public hearing on November 1, 2005, the draft plan was presented to the OVWC Board of Directors for approval. Appendix B includes the notice of public hearing issued prior to the public meeting.

1.4 Adoption and Implementation

The draft UWMP was updated during the summer and fall of 2005 and a final plan adopted by OVWC on December 6, 2005, for submittal to the DWR by December 31, 2005. Appendix C includes the Resolution of Plan Adoption by the OVWC Board of Directors.

Copies of the OVWC 2005 UWMP are available for public review during normal business hours at the OVWC office located at 9031 Central Avenue, Orange Vale, CA 95662.





Section 2 – Service Area Description

2.1 History and Growth

The OVWC is located in the northeast portion of Sacramento County, California, approximately 23 miles northeast of downtown Sacramento (Figure 2.1).

In 1896, OVWC was incorporated as a general corporation for the purpose of delivering agricultural water to its landowners (shareholders) and members in an area of 3,078 acres. Land within the service area began experiencing gradual residential and commercial development in the 1950s. In 1994, OVWC adopted the California Non-Profit Mutual Benefit Corporation Law, and its shareholders became members. Currently there are approximately 5,327 connections made up of mostly single/multiple family residential customers and less than 200 commercial customers. Approximately 66 percent of the OVWC service area is developed as residential housing and approximately 10 percent is developed for commercial uses.

OVWC delivers surface water purchased wholesale from the SJWD. OVWC holds an interim agreement with SJWD to purchase up to 7,500 acre-feet per year (AFA) of treated surface water to supply water to the OVWC service area. A copy of the agreement between SJWD and OVWC is included in Appendix D. The OVWC retail water supply system is described in detail in Section 3.

OVWC currently serves a population of approximately 17,740 within a gross area of 3,078 acres of which 76 percent is developed. Based upon current build-out conditions and the Sacramento Area Council of Governments (SACOG) population estimates, the OVWC service area population is projected to increase to approximately 18,530 in 2010 and 19,910 in 2025. The service area population trends, projections and corresponding service connections are shown in Table 2.1.

Table 2.1 – Orange Vale Water Company Service Area Population & Service Connections: Current and Projected

OVWC Service Area	1995	2000	2005	2010	2015	2020	2025	2030
Population	16,080	16,780	17,740	18,530	19,160	19,620	19,910	20,020
Service Connections	4,947	5,074	5,327	6,060	6,270	6,421	6,514	6,549

2.2 Climate

OVWC service area has cool, rainy winters, and hot, dry summers. The monthly temperature in the Sacramento area ranges from an average low of 39.5 to an average high of 91.5 degrees Fahrenheit (Western Regional Climate Center). In the past, extreme conditions have been recorded at 17 degrees Fahrenheit for the lowest temperature and 114 degrees Fahrenheit for the highest. The historical annual mean precipitation is 18.2 inches with a monthly precipitation as high as 14.2 inches and as low as 0 inches. Table 2.2 shows the average rainfall and temperature for year 2004 based upon the California Irrigation Management Information System (CIMIS)





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data. In 2004, the total annual precipitation was 20.54 inches and monthly average temperature varied from 46.8 to 80.7 degrees Fahrenheit.

Table 2.2 – Orange Vale Water Service Area Climate Conditions (2004)

	Jan	Feb	Mar	Apr	May	Jun	Jul
Standard Monthly Average ET ₀	0.78	1.62	3.99	5.49	6.97	7.74	8.13
Total Rainfall (inches)	2.44	5.40	0.95	0.24	0.13	0.00	0.02
Average Temperature (Fahrenheit)	53.4	59.2	73.4	75.5	80.7	71.8	75.2
	Aug	Sep	Oct	Nov	Dec	Annual	
Standard Monthly Average ET ₀	7.25	5.58	2.93	1.43	0.92	52.83	
Total Rainfall (inches)	0.00	0.03	3.49	2.70	5.14	20.54	
Average Temperature (Fahrenheit)	74.6	71.6	61.0	51.2	46.8	66.2	

Source: Monthly Report of the California Irrigation Information System - Department of Water Resources
Sacramento Valley – Fair Oaks – 131

ET₀ = Evapotranspiration Rate, (in inches)





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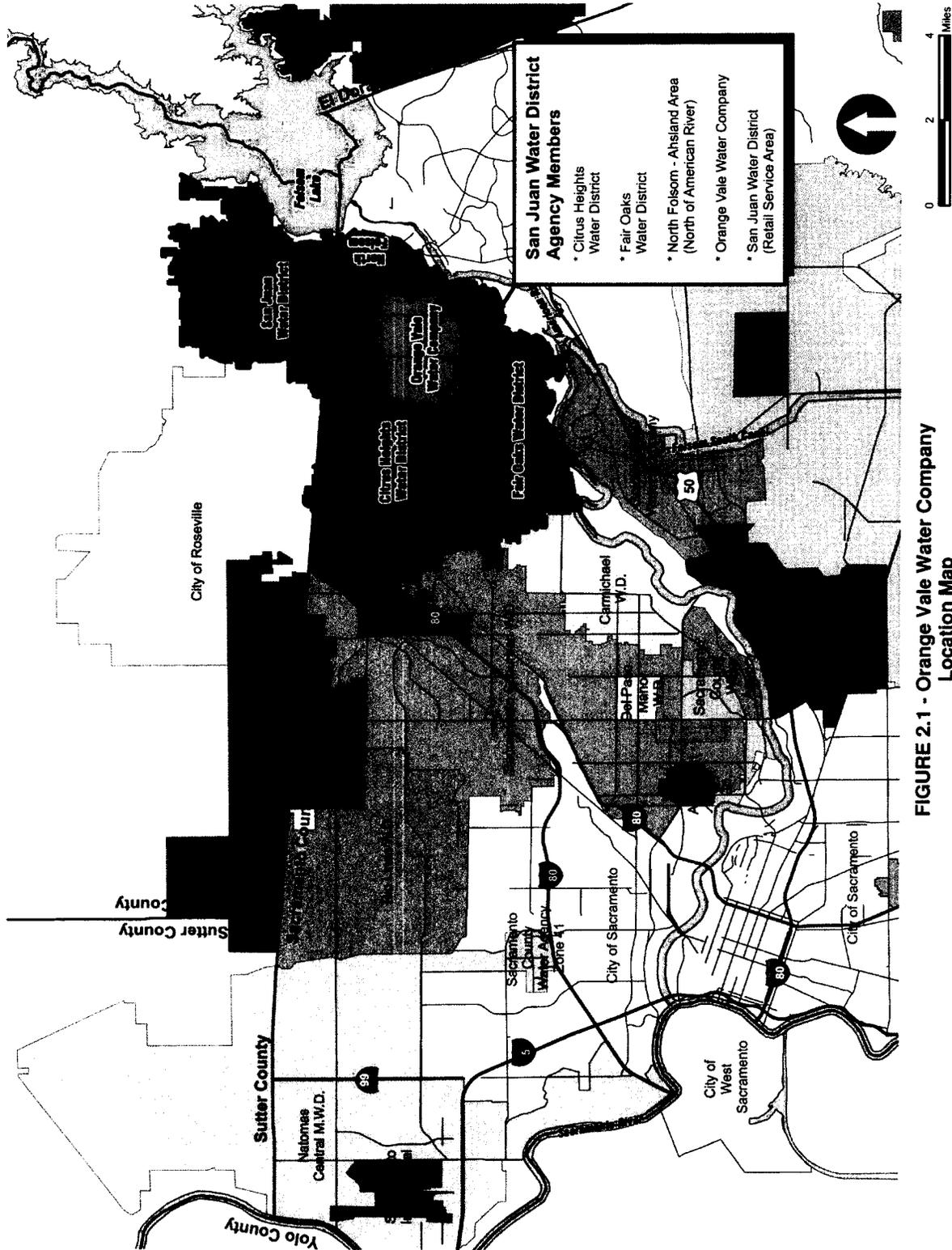


FIGURE 2.1 - Orange Vale Water Company Location Map



Section 3 – Water Supply and Demand

3.1 Water Supply Sources and Distribution Infrastructure

OVWC's water supply sources include both surface and groundwater. Surface water is used as the primary supply source, and groundwater is currently used only as an emergency supply source.

The OVWC's water distribution system consists of over 75 miles of pipeline, ranging in diameter from 1.5 inches to 30 inches, approximately 1,100 distribution system valves, 5,327 active connections, and approximately 580 fire hydrants. Figure 3.1 shows OVWC's service area and water system.

3.1.1 Surface Water

The surface water supply to OVWC's service area is purchased from SJWD. An agreement between OVWC and SJWD was entered in September 1974 for the delivery of 7,500 AFA of treated surface water from SJWD to OVWC. An interim extension of this agreement is in effect until December 31, 2005, at which date it may be extended by written consent of both parties. A copy of the agreement between OVWC and SJWD is available in Appendix D.

Surface water provided by SJWD is diverted from USBR Folsom Reservoir and is treated at the SJWD Sydney N. Peterson Water Treatment Plant (WTP). The Peterson WTP has an existing capacity of 120 million gallons per day (mgd). Treated water is transported to the Hinkle Reservoir, a 62 million gallon-storage reservoir. The water is delivered from the Hinkle Reservoir through the SJWD Cooperative Transmission Pipeline (CTP) and delivered to OVWC through five metered locations. The water is then distributed by gravity through the OVWC system with no need of additional booster pumps.

3.1.2 Water Source – Groundwater

OVWC owns and operates two groundwater wells as a back-up emergency supply to the surface water. These groundwater wells have a combined pumping capacity of 3,500 gpm and the potential to operate as a supplement supply source when surface water supplies are reduced during dry year conditions. The two wells, considering draw-down and operational constraints have an estimated, but not tested, combined capacity of less than 3,320 AFA.

3.1.3 Basin Characteristics

The two groundwater wells are currently used only under emergency conditions to supplement the primary surface water supply provided by SJWD. The wells extract groundwater from the Sacramento Valley Basin-North American Sub-basin (Groundwater Basin Number: 5-21.64). The North American Sub-basin is located within





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an area of 351,000 acres in the Sacramento Valley. It is bounded by the Bear River on the north, the American River on the south, the Sacramento River on the west, and Folsom Reservoir to the southeast. Most of the groundwater is produced in the northern portion of the sub-basin where the aquifer is unconfined in the upper 200 to 300 feet.

The sub-basin groundwater quality is basically divided in three types:

- Calcium magnesium bicarbonate.
- Sodium magnesium bicarbonate.
- Sodium calcium bicarbonate.

The elevated levels of TDS/specific conductance, chloride, sodium, bicarbonate, boron, fluoride, nitrate, iron, manganese, and arsenic may be of concern in some locations. The two OVWC groundwater wells currently meet the State Department of Health Services (DHS) Maximum Contaminant Levels (MCLs); however the groundwater wells could be improved with chlorination facilities.

3.2 Historical and Projected Water Demands

The water supplied to OVWC by SJWD is metered at five locations within the OVWC service area. Figure 3.1 presents the OVWC water system and metered connections.

The number of connections to the OVWC water system has increased in the past. However, the water deliveries per connection have dropped due to water conservation measures, as well as the recent introduction of water meters on all of OVWC customer services. Water service requirements and connections are projected to increase relative to population estimates. Table 3.1 summarizes the historical and projected water deliveries from SJWD to OVWC.

**Table 3.1 – Orange Vale Water Company
Historical and Projected Water Demands**

Year	Demand, AFA
1985	5,440
1990	4,425
1995	3,680
2000	4,550
2005	4,980
2010	5,200
2015	5,380
2020	5,510
2025	5,590
2030	5,620





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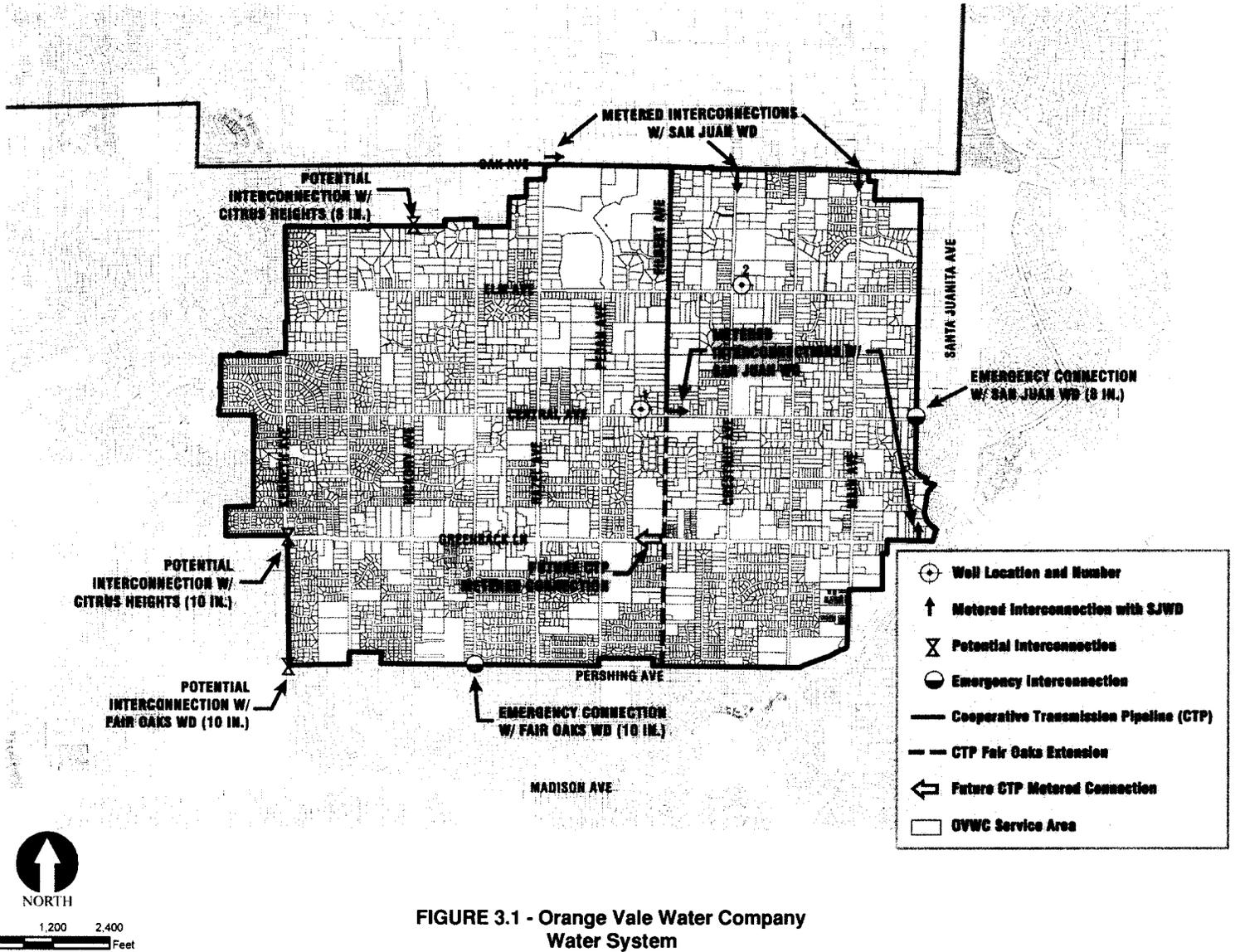


FIGURE 3.1 - Orange Vale Water Company Water System





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3.2.1 Water Use by Customer Type - Past, Current, and Future

The OVWC service area over the last 30 years has been predominately made up of single-family residential customers followed by multi-family residential customers. Prior to residential development, the OVWC service area consisted of several ten-acre agricultural parcels utilized by small family-owned farming businesses. Today the OVWC net service area of 2,716 acres when excluding streets within the gross boundary area of 3,078 acres is made up of approximately: (a) 2,100 acres or 77% of single family customer acreage; (b) 330 acres or 12% of multi-family customer acreage; (c) 270 acres or 10% of parks, schools, and governmental entity acreage, and (d) less than 1% in commercial and light industrial acreage.

A review of the current population estimates and undeveloped acreage within the OVWC service area suggests that the OVWC service area is currently built out at a 77% saturation level with the greatest growth potential continuing in new single-family residential customers followed by multi-family residential customers. Customer billing data and meter readings within the OVWC service area for summer of 2004 indicates approximately 90% of the OVWC water demand and usage is from residential customers, followed by 7% institutional and governmental customers, with commercial and light industrial customers accounting for approximately 3% of the OVWC demands. These demand figures by the five notable water use sectors within the OVWC service area can be reviewed in Table 3.2. The same current demand trends for each water use sector are likely to continue into the future through the year 2030 as indicated in Table 3.3. A distribution of the water demands by various customer use sectors, based upon the summer of 2004 OVWC customer billing records are shown in Figure 3.2.

Table 3.2 – Orange Vale Water Company Past Water Deliveries

Water Use Sectors	2001				2004		% of Water Use by OVWC Water Use Sector
	Metered		Unmetered		Metered ¹		
	No. of Accts	Deliveries, AFA	No. of Accts	Deliveries, AFA	No. of Accts	Deliveries, AFA	
Single Family	1,096	N/A	3,721	N/A	4,906	3,328	79.9
Multi-Family	N/A	N/A	N/A	N/A	147	379	9.1
Commercial/ Light Industrial	N/A	N/A	N/A	N/A	179	112	2.7
Institutional/ Government	N/A	N/A	N/A	N/A	79	304	7.3
Landscape/ Agricultural	N/A	N/A	N/A	N/A	9	42	1.0
Total	1,096	1,132	3,721	3,325	5,320	4,165	100

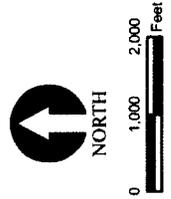
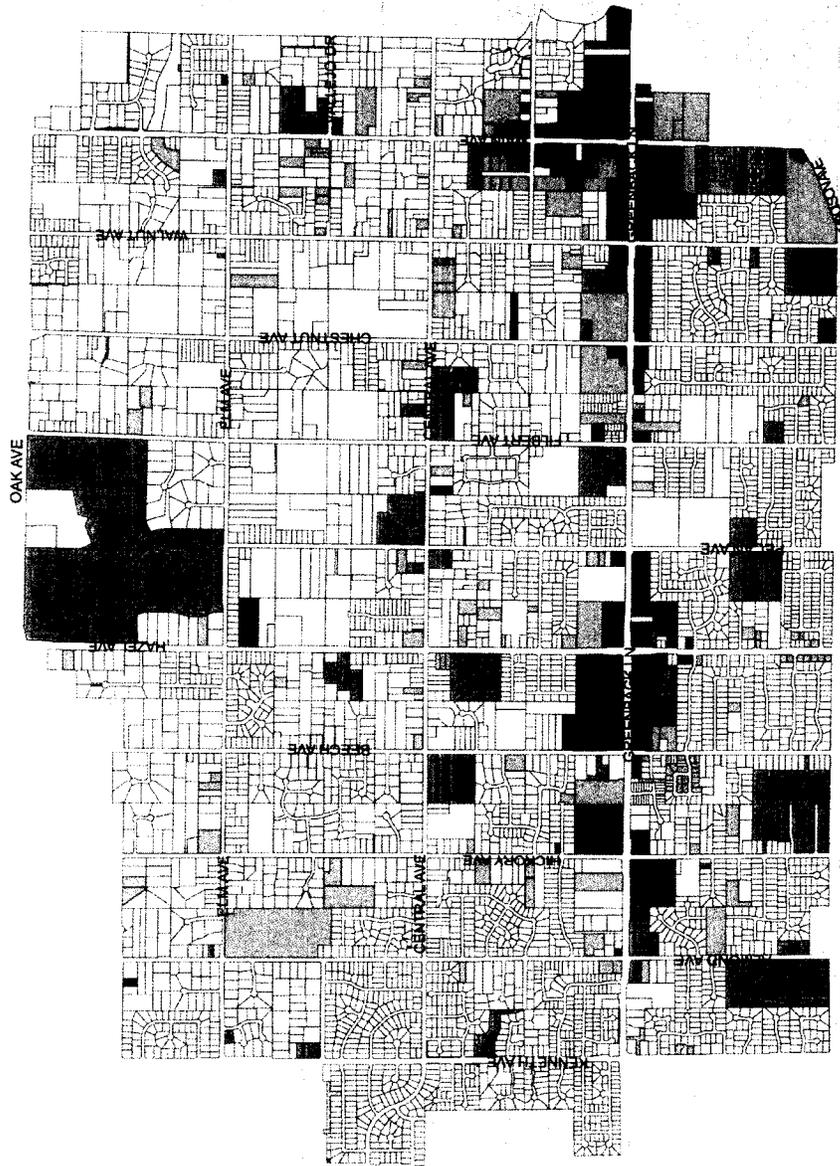
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¹ Note: All OVWC customer accounts have been metered on a regular basis since 2004, but OVWC did not commence billing OVWC customers on actual metered usage until January 2005.

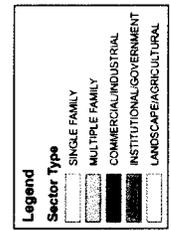




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**FIGURE 3.2 - Orange Vale Water Company
Distribution of Customer Use Sectors**





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Table 3.3 – Orange Vale Water Company Projected Water Deliveries

Water Use Sectors	2010		2015		2020		2025		2030	
	Metered		Metered		Metered		Metered		Metered	
	No. of Accts.	Deliveries, AFA								
Single Family	5,588	4,155	5,782	4,299	5,921	4,402	6,007	4,466	6,040	4,490
Multi-Family	167	473	173	490	177	501	180	509	181	511
Commercial/ Light Industrial.	204	140	211	145	216	149	219	151	220	152
Institutional/ Government	90	380	93	393	95	402	97	408	97	410
Landscape/ Agricultural	10	52	11	54	11	55	11	56	11	56
Total	6,060	5,200	6,270	5,380	6,421	5,510	6,514	5,590	6,549	5,620

3.3 Water Supply Reliability

During normal water-years, when the inflow to Folsom is anticipated to be above 950,000 acre-feet OVWC can receive a maximum of 7,500 AFA of surface water from SJWD. The full contractual amount of 7,500 AFA during normal water-years is made available to OVWC from SJWD through its “Interim Wholesale Water Supply Agreement” included as Appendix D to this UWMP. However, during dry-year and drought year conditions of water shortages when inflow to Folsom Reservoir is anticipated to be less than 950,000 acre-feet SJWD will allocate its limited supply of wholesale water. SJWD will pro-ration its reduced supplies from Folsom Reservoir in an equitable manner with OVWC and the other SJWD retail water agency members as noted in paragraph 5.H of the “Interim Wholesale Water Supply Agreement,” included in Appendix D. The exact water allocation of water supply from SJWD to OVWC and the other SJWD water agency retail members during dry-year and drought conditions is being evaluated in the current SJWD wholesale master planning efforts, and has yet to be determined by SJWD and its agency members.

The wholesale surface water amounts available to SJWD from Folsom Reservoir during dry year conditions are based largely upon the 2000 Water Forum Agreement between regional water purveyors and regional stakeholder groups. The Water Forum Agreement stipulates wholesale amounts available to SJWD during dry and drought year conditions when inflows to Folsom Reservoir fall substantially below the long-term inflow average of 2.5 million acre-feet. Table 3.4 and Figure 3.3 present the amounts of wholesale surface water from Folsom Reservoir that have been stipulated in the Water Forum Agreement as available to SJWD as well as correlative estimated amounts of wholesale water that are likely to be available from SJWD to the OVWC when the annual inflow to Folsom Reservoir is expected to drop well below its long-term inflow average of 2.5 million AFA. The Water Forum Agreement stipulates that 82,200 acre-feet of water is available to SJWD when inflow to Folsom Reservoir is anticipated to be 950,000 acre-feet or greater, and that only 54,200 acre-feet of water will be available to SJWD when the inflow to Folsom Reservoir is anticipated to be 400,000 acre feet or less. Any year when inflows to Folsom Reservoir are anticipated to be less than 400,000 acre-feet, the Water Forum





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Agreement and SJWD define such a year as a “Conference Year”. For the purpose of this UWMP the “Conference Year” is also referred to as the single driest year drought condition.

Table 3.4 - Surface Water Supplies Available to SJWD and OVWC During Normal and Driest Year Conditions Based Upon Inflow to Folsom Reservoir & 2000 Water Forum Agreement

	Inflow Into Folsom Reservoir	San Juan Water District (SJWD)		Orange Vale Water Company (OVWC)	
	AFA	AFA	Mgd	AFA	mgd
Normal Years	≥ 950,000	82,200	73.4	7,500	6.7
Driest Years (Conference Years)	≤ 400,000	54,200	48.4	4,150	3.7
Driest Years as % of Normal Years	42.1%	65.9%	65.9%	55.3%	55.3%

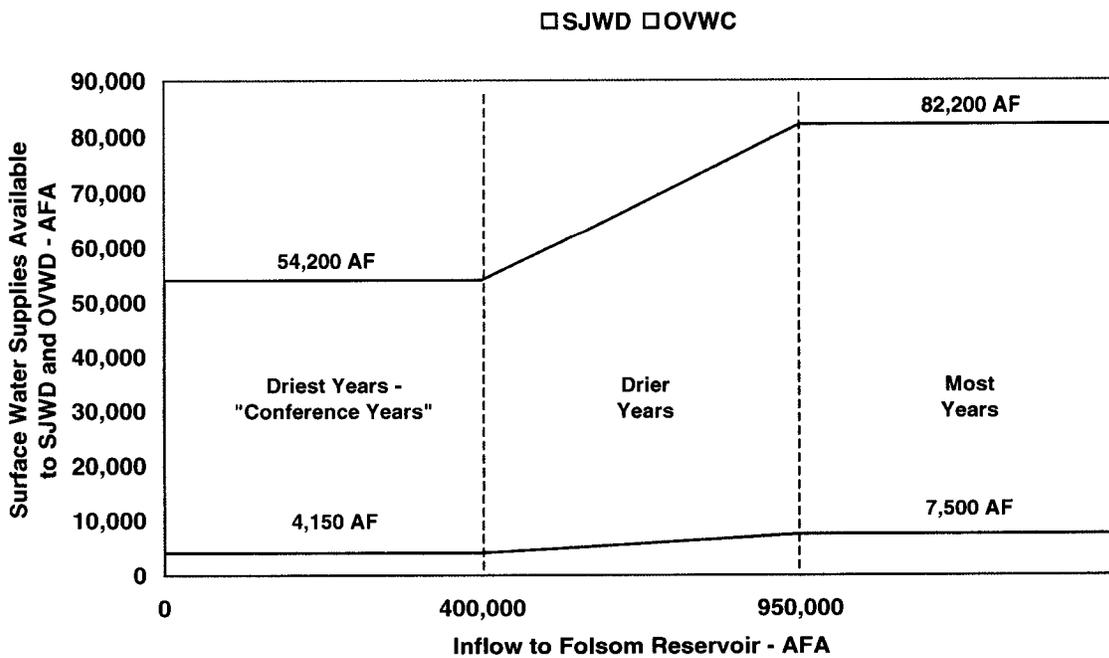


Figure 3.3 - Surface Water Supplies Available to SJWD and OVWC During Dry-Year and Driest-Year Conditions Based Upon Inflow To Folsom Reservoir & 2000 Water Forum Agreement





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For planning purposes, OVWC has assumed that OVWC will be entitled to receive in the single driest of years at least 92% of its recent historic demands or approximately 4,150 AFA. This is comparable to the water deliveries that the other SJWD retail water agencies identified as their potential dry-year entitlements in connection with the current SJWD wholesale water master planning efforts. The driest year entitlement of 4,150 AFA identified by OVWC for planning purposes represents less than 74% of its projected 2030 demand of 5,620 AFA, and approximately 55% of SJWD's normal-year contractual obligation of 7,500 AFA. To satisfy water demands in drought events, OVWC may be required to extract approximately 1,660 AFA from its groundwater sources. OVWC is planning improvements to its groundwater system to insure water quality and supplement surface water supplies during dry year conditions. Proposed improvements to the OVWC groundwater system are described in Section 3.8.

Table 3.5 presents the water supply reliability analysis for OVWC, considering three water supply scenarios: average/normal water-year, multiple dry years, and the single driest year condition. During average/normal water-years OVWC is able to provide 100 percent of the normal water supply through their surface water agreement with SJWD. As the surface water supply is reduced during multiple dry and single dry years, OVWC may need to rely upon its groundwater system to reduce water supply impacts to its customers. In the driest years, the overall OVWC surface water supply may be reduced to 78 percent of its average/normal year supply of 7,500 AFA.

Table 3.5 – Water Supply Reliability, AFA

	Ave./Normal Water-Year	Multiple Dry Water Years ²					Single Driest Water-Year ³
		Year 1	Year 2	Year 3	Year 4	Year 5	
Surface Water	7,500	6,950	6,400	5,850	5,300	4,750	4,150
Groundwater ¹	0	550	1,100	1,650	1,660	1,660	1,660
Total	7,500	7,500	7,500	7,500	6,960	6,410	5,810
% of Normal	100%	100%	100%	100%	92.8%	85.5%	77.5%

¹ Availability of OVWC groundwater supply assumes only 50% utilization of OVWC's existing groundwater supplies are available until OVWC's existing emergency groundwater wells are updated with chlorination treatment facilities.

² Multiple dry year conditions will apply whenever the annual inflow to Folsom Reservoir varies between 400,000 and 950,000 AFA. (See Table 3.4 and Figure 3.3 for more details when multiple dry year conditions apply.)

³ The single dry water-year is considered the single worst dry-year condition, known locally as a Water Forum "Conference Year", when projected annual inflow to Folsom Reservoir is anticipated to be less than 400,000 AFA. (Refer to Figure 3.3.)

OVWC can satisfy its anticipated 2030 water demand of 5,620 AFA during single dry water year conditions. OVWC water supply is reliable and can satisfy dry-year demands within its service area during drought conditions by improving its emergency groundwater system to an active conjunction use water supply.





3.4 Water Quality Impacts on Reliability

The surface water quality supplied from the SJWD wholesale system to the OVWC retail customers is considered very good. The surface water is treated by SJWD before delivery to OVWC. The SJWD WTP is capable of treating 120 mgd. The groundwater quality for the OVWC wells is also considered very good, however, the existing groundwater wells do not contain chlorination treatment facilities. Chlorination treatment improvements to the OVWC groundwater wells are planned in the near future and, as such, water quality conditions are not likely to impact the reliability of the existing water supplies available to the OVWC.

3.5 Water Service Reliability

3.5.1 Projected Normal-Year Water Supply and Demand

The interim agreement between OVWC and SJWD shown in Appendix D allows for deliveries up to 7,500 AFA of treated water when normal/average inflows to Folsom Reservoir are 950,000 AFA or greater. This treated water amount is projected to be available under normal/average conditions through the year 2030.

Current 2005 water demands for OVWC are estimated at 4,980 AFA. This demand is expected to increase as the service area continues to develop. The projected demand in 2030 is 5,620 AFA. Table 3.6 presents the comparison between projected supply and demand under normal/average conditions. OVWC's current agreement with SJWD is adequate to serve the projected demands through 2030.

Table 3.6 – Projected Normal-Year Supply and Demand Comparison, AFA

	2010	2015	2020	2025	2030
Supply Totals	7,500	7,500	7,500	7,500	7,500
Demand Totals	5,200	5,380	5,510	5,590	5,620
Difference	2,300	2,120	1,990	1,910	1,880
Difference as % of Supply	31%	28%	27%	25%	25%
Difference as % of Demand	44%	39%	36%	34%	33%

3.5.2 Projected Single-Dry-Year Supply and Demand Comparison

During single-dry year conditions, SJWD could possibly limit OVWC surface water supplies to 4,150 AFA as noted above in Section 3.3. The potential reduction in surface water supply from SJWD represents a 22.5 percent reduction of OVWC's existing normal water supply. To satisfy water demands, OVWC anticipates utilizing as much as 1,660 AFA from its existing groundwater system for a total supply of 5,810 AFA during single-dry year conditions.

With OVWC's predicted normal/average year demand of 5,620 AFA in the year 2030, OVWC would be capable of meeting demands with the combined surface and





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groundwater supplies. However, during previous dry-year conditions the OVWC customers have reduced their demand by implementing dry-year water conservation Demand Management Measures (DMMs). Water conservation measures would be implemented by OVWC to ensure wise water use by their customers. OVWC predicts a reduction of 25 percent of the normal water demands during single-dry-year conditions. Table 3.7 shows the comparison between supply and demand under single-dry-year conditions without implementing dry-year DMMs. OVWC is capable of meeting demands through the year 2030 with curtailed surface water and supplemental groundwater supplies.

Table 3.7 – Projected Single-Dry-Year Supply and Demand Comparisons, AFA

	2010	2015	2020	2025	2030
Supply totals	5,810	5,810	5,810	5,810	5,810
Demand Totals	5,200	5,380	5,510	5,590	5,620
Difference	610	430	300	220	190
Difference as % of Supply	10%	7.4%	5.2%	3.8%	3.2%
Difference as % of Demand	12%	7.8%	5.4%	3.9%	3.4%

3.5.3 Projected Multiple-Dry-Year Supply and Demand Comparison

In multiple-dry-year conditions, it is anticipated that surface water provided by SJWD to OVWC could be reduced. However, OVWC is capable of meeting normal-year water supply demands by implementing conjunctive use groundwater supplies from its existing emergency groundwater well system. Combining the curtailed surface water supplies and improved groundwater supplies, OVWC could provide 89 to 100 percent of the normal water supply. During prolonged drought events, OVWC may apply water conservation measures that could reduce water demands up to 25 percent of the normal water demand.

A comparison between projected water supply and projected water demand during a prolonged drought was conducted. This comparison, shown in Appendix E shows the results over the next 25 years, in five-year intervals, with the implementation of a Water Shortage Contingency Plan noted in Section 5 of this UWMP and Demand Management Measures noted in Section 4 of this UWMP.

3.6 *Transfer and Exchange Opportunities*

OVWC currently receives all of its surface water from Folsom Reservoir through SJWD, its wholesale provider. The surface water from Folsom Reservoir is treated by SJWD at the Peterson WTP and conveyed from the WTP to the SJWD family member water agencies through the San Juan Cooperative Transmission Pipeline (CTP). The CTP traverses through the OVWC service area and delivers treated surface water to the OVWC at five separate, metered points of delivery. The CTP also provides wholesale water deliveries to the neighboring SJWD water





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family agency members, Citrus Heights, Fair Oaks, and the portion of Folsom north of the American River.

Transfer and exchange opportunities exist between the San Juan family agencies members during emergencies and temporary outages to maintain water service. There are two existing emergency connections and three potential interconnection locations within the OVWC distribution system with the neighboring water agencies. However, the two existing emergency connections and the other three potential interconnection locations all rely upon the same major supply of surface water from the Peterson WTP. The transfer or exchange of water amongst the local family of SJWD retail water agencies would be of greater value to OVWC and/or any of its neighboring water agencies if either groundwater supplies or surface water storage tanks were developed to offset curtailments or interruptions in surface water deliveries from the SJWD Peterson WTP. Please refer to Figure 3.1 to review the five existing San Juan delivery/metering locations as well as the two existing emergency connections and three possible interconnection locations with the neighboring SJWD family agency members.

3.7 Current or Projected Supply Includes Wholesale Water

The OVWC meets with SJWD and neighboring SJWD retail water agency members to discuss water availability per current water supply agreements, based largely upon the anticipated inflow to Folsom Reservoir. OVWC provides projected demands as part of long range planning efforts that are on-going with the SJWD and family agency members.

SJWD, through its current wholesale master planning efforts, has informed OVWC during dry conditions that OVWC may only receive a pro-rata share of its average-year San Juan annual deliveries and possibly limit OVWC's dry-year wholesale deliveries to 4,150 acre-feet as noted above in Section 3.3. During the dry-year conditions OVWC could be asked to curtail its peak-hour and peak-day demands and utilize its existing groundwater well system in a conjunctive use manner to offset the shortage of surface water. The exact water allocation of water supply from SJWD to OVWC and the other SJWD retail water agencies when inflows to Folsom Reservoir are anticipated to be less than 950,000 AFA is still being evaluated in the current SJWD wholesale master planning efforts, and has yet to be collectively determined by SJWD and its agency members.

3.8 Planned Water Supply Projects and Programs

OVWC is considering converting its existing emergency back-up groundwater wells into seasonal conjunctive use wells to supply peak-day and peak-hour demands and offset surface water demands during dry-year, peak demand months.

On a regional basis, SJWD in connection with the Regional Water Authority (RWA) is considering the development of a regional inter-tie pipeline system between the American and Sacramento Rivers. The potential inter-tie to Sacramento River surface water could supply additional water supplies during dry-years to the San Juan and OVWC service areas.





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Upgrading its current groundwater supply wells will allow OVWC to actively participate in a region-wide conjunctive use program. The two OVWC wells have a combined installed pumping capacity of approximately 3,500 gallon per minute (gpm). However, the wells do not currently have chlorination facilities nor have they been operated for an extended period of time to confirm their firm yield of continuous operation during nine months of a dry-year. OVWC has reported that if the two existing OVWC wells were improved for long-term operation as part of a conjunctive use program they could possibly provide as much as 3,340 AFA during dry-year conditions. For current planning purposes, until the OVWC wells are upgraded with chlorination treatment facilities, OVWC has conservatively assumed its groundwater system has a present dry-year yield of only 1,660 AFA.

OVWC is analyzing the option of installing another conjunctive use production well with a planned capacity of approximately 1,300 gpm. Upgrading the two existing wells and constructing a new OVWC production well are an integral part of the RWA implementation grant application for DWR Proposition 50 funds. Both the RWA and OVWC remain cautiously optimistic that cost-sharing funds may be available within the next couple of years for improving the two existing wells and installing a new well with the stated capacity and potential yields as noted in Table 3.8.

Table 3.8 – Orange Vale Water Company Groundwater Well Improvement Projects

OVWC Well Number	Pumping Capacity (gpm)	Ground-water Depth (ft)	Pump Horsepower (hp)	80% Operating Capacity (gpm)	Potential Dry-Year Yield ¹ (AFA)	Conjunctive Use Operation Date
Stand-by Well #1	2,500	120-130	200	2,000	2,400	June 2007
Stand-by Well #2	1,000	120-130	100	800	920	June 2007
Subtotal(s) of Existing Wells w/Chlorination	3,500	120-130	300	2,800	3,320	June 2007
New Production Well #3	1,300	120-130	110-130	1,000	1,200	December 2007
Totals	4,800	-	410-430	3,800	4,520	-

¹ Assumes only nine months of operation out of twelve month calendar year.

The groundwater well improvement projects, presented above in Table 3.8, are the only new water supply projects under consideration by OVWC to ensure water supply conditions during dry years.





Section 4 – Determination of DMM Implementation

4.1 Demand Management Measures

OVWC conducts an ongoing water conservation program. In the last five years, 12 of DWR's 14 Demand Management Measures (DMM) have been implemented as part of the OVWC conservation program. OVWC has an annual budget of \$35,000 to maintain and improve its water conservation program.

Upon completion of its metering retrofit program in January 2005, OVWC started billing all of its customers on tiered commodity rates. Quantification of water conservation data and effective water savings since January of 2005 is not yet available for this report. However, during the past five years the population in the OVWC service area increased by approximately 5.5 percent and consumption has stayed relatively constant. The implementation of DMMs in the OVWC service area has been successful and OVWC will continue to implement its water conservation program.

A list of actions and descriptions of the DMMs implemented in OVWC service area are presented in this section. Detailed sample of selected DMMs are presented in Appendices F through L of this UWMP.

4.1.1 DMM 01: Water Survey Programs for Single-Family and Multiple-Family Residential Customers

Since 2003, OVWC has implemented a water survey program for single-family and multi-family residential customers in the service area.

This program includes the following:

- Customers are notified of availability of survey in bi-monthly bill.
- Surveys made available to all OVWC customers.
- Instruct customers of meter reading program and applicable tiered rates.
- Detection of outside leaks, and instruct homeowners on interior leak detection.
- Provide low-flow devices as appropriate.
- Recommend ultra-low flow toilet (ULFT) replacements.
- Check irrigation system for leaks/overlap and determine timer functioning and seasonal scheduling.





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- Measure landscape area and develop irrigation schedule.
- Provide customer with evaluation results, water saving recommendations and other information.

The OVWC service area includes approximately 4,900 single-family accounts and 150 multi-family accounts (2004). Surveys are offered to all single-family and multi-family customers every year. OVWC records show 20 surveys were completed for single-family customers and two for multi-family customers during 2003, and 17 for single-family customers in 2004.

OVWC will continue to notify all their customers through their billing statements that the surveys are available and audits will be performed upon customers' request. A sample copy of a water audit report is included in Appendix F.

4.1.2 DMM 02: Residential Plumbing Retrofit

OVWC participates in the distribution of plumbing retrofit kits as part of the water saving program. These kits are available for all customers at their request and at the counter in OVWC office lobby. The water saving device form for customers' request is presented in Appendix G.

The plumbing retrofit kits consist of the following:

- High quality 2.5 gpm showerheads.
- 2.2 gpm faucet aerators.
- Toilet displacement device, dye tablets, and hose nozzles.

(For the separate Ultra Low Flow Toilet (ULFT) program please refer to Section 4.1.12 – DMM 14 and Appendix L.)

OVWC has targeted at least 10 percent of single-family and multi-family units each year, until 75 percent of the total residential units are retrofitted. The customers are informed about the retrofit kit through direct mail, bill stuffer, bill messages, and door-to-door targeting methods. The low-flow conservation kits are only available upon customers' request. Table 4.1 presents the number of retrofit kits distributed in the past four years to single and multi-family residential customers.





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Table 4.1 – Plumbing Retrofit Kits Distributed to Single-Family and Multi-Family Orange Vale Water Company Customers

Actual	2001	2002	2003	2004
Number of Retrofit Kits Distributed to Single-Family Customers	0	84	335	235
Number of Retrofit Kits Distributed to Multi-Family Customers	0	0	0	0
Total	0	84	335	235

Within the OVWC service area approximately 75% of its multi-family households by 2002 had low-flow showerheads installed. With this successful high percentage of showerheads installed in multi-family units the retrofit program was not continued for multi-family residential. However, in 2002, only 15% of the single-family households in the OVWC service area had low-flow showerheads. Through an aggressive implementation program the percentage of low-flow showerheads installed in single-family units was increased to 25% in 2003 and to 50% in 2004. OVWC will continue to offer the low-flow conservation kits to its residential customers until OVWC reaches its long-term target of having 75% of its residential customers equipped with low flow, plumbing retrofit kits.

OVWC keeps records of names and addresses where the retrofit kits have been installed.

4.1.3 DMM 03: System Water Audits, Leak Detection, and Repair

In 2002, OVWC utilized a constant visual leak detection method, and all leaking mainlines were repaired or replaced immediately. In 2003, OVWC hired a leak detection company, Hughes Supply, Inc., which conducted water audits and leak detection and repairs using the methodology consistent with that described in the American Water Works Association (AWWA) *Water Audit and Leak Detection Guidebook*. Hughes Supply in 2003 conducted a survey on approximately 12.5 miles (or approximately 17 percent) of the OVWC distribution system and found two leaks. In 2004, the leak detection survey conducted by Hughes Supply on approximately eight miles of the distribution system detected only one leak. OVWC will continue to conduct leak detection surveys in future years covering approximately 10 percent of its distribution system per year. Summaries of the 2003 and 2004 leak detection surveys performed by Hughes Supply are included in Appendix H.

These surveys provide OVWC with an improved water conservation program and help provide a current priority list of pipelines requiring repair and/or replacement. A list of future pipeline replacement projects within the OVWC service is also provided in Appendix H.





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4.1.4 DMM 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing

The OVWC service area is fully metered for all customer sectors including single-family, multi-family, commercial, institutional, and landscape irrigation. In 2003, OVWC installed 121 new meters for Commercial, Industrial, and Institutional (CII) mixed-use accounts and 121 more in 2004 to complete the retrofit program. All OVWC customers are now metered and are billed accordingly to actual water use on a bi-monthly basis. Meters will continue to be installed for all new connections in the service area.

Prior to program completion, meters in the service area were read bi-monthly and water consumption was displayed on the billing statements. Since January of 2005, all metered connections have been billed based upon a tiered commodity rate structure. Included as Appendix I is the current OVWC metered water rates.

4.1.5 DMM 05: Large Landscape Conservation Programs and Incentives

Since 2002, OVWC has provided education and assistance to non-residential customers with support and incentives to improve their landscape water-use efficiency. In addition, OVWC provides landscape water use efficiency information to all existing and new customers.

The large landscape conservation program is applied to all accounts with dedicated irrigation meters and mixed-use metered accounts. OVWC offers mini-audits as part of their customer service program; two surveys were completed in 2003 and six in 2004.

By the end of 2006, OVWC will identify which of the CII accounts with mixed-use meters have large irrigated landscapes. OVWC will identify which of its 179 commercial accounts and 79 institutional/government accounts have one-acre or larger irrigated landscape areas and do not have a dedicated landscape meter. OVWC will then identify the cost and benefits of installing dedicated landscape meters to the identified accounts.

4.1.6 DMM 07: Public Information Programs

Since 2002, OVWC has provided the public information as part of its water conservation program. OVWC provides information to the public through speakers for community groups, events, and schools. In addition, the customers receive information through paid and public service advertising.

Since 2004, to promote water conservation practices, customer's water bills show gallons used per day for the last billing period compared to the same period the year before. A sample of billing statement is included in Appendix J.

The OVWC coordinates with other governmental agencies, industry groups, public interest groups, and the media to continue offering information to customers. Presented





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on Table 4.2 is a summary of the public information programs provided in the last three years. Some brochure examples regarding water conservation provided to customers are included in Appendix J.

Table 4.2 – Orange Vale Water Company Public Information Programs

Public Information Program	Number of Program Items per Year		
	2002	2003	2004
Paid advertising announcements	10	10	10
Public service announcements	Yes ¹	100	100
Monthly bill inserts / newsletters / brochures per year/ per customer	6	12	12
Customers' bill showing water usage in comparison to previous year's usage	No	No	Yes
Demonstration gardens	Yes ¹	2	2
Special events	Yes ¹	10	10
Speaker's bureau events	Yes ¹	5	5
Program to coordinate w/other governmental agencies, industrial and public interest groups, and the media	Yes	Yes	Yes

¹No counts available. However, records show the program was implemented.

4.1.7 **DMM 08: School Education Programs**

OVWC participates with San Juan's member water agencies in a school education program to provide institutional assistance, educational materials, and classroom presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. The school education program consists of the following components:

- Books.
- Annual poster contests.
- Maps, charts, and posters.
- Professional plays.
- Teacher grants (in conjunction with poster contest).

OVWC sponsors an annual poster contest with 4th, 5th, and 6th grade students in the area. The winners receive monetary awards for their entries, which display a particular conservation theme. This program has been in place for several years. OVWC also provides T-shirts and certificates of award for each participant.

In addition, since 2002, OVWC offers class presentations to 4th, 5th, and 6th grade students as part of the school education program. OVWC held nine class presentations in 2002, ten in 2003 and ten in 2004.

OVWC maintains a conservation education counter in the office lobby, which provides items such as book covers, conservation stickers, pencils, rulers, poster contest winning





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calendars, and other items encouraging smart water use. Students, parents, and teachers are informed of these give-away items and visit the office on a regular basis.

4.1.8 DMM 09: Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts

In 2003, OVWC started identifying commercial and institutional customers according to use. In 2004, OVWC began implementing audits to a targeted number of CII accounts. The initial target of 179 commercial accounts and 79 institutional/government accounts received surveys on water use efficiency. Only three of the industrial/government accounts surveys have been completed. OVWC will continue to offer audits to the CII accounts.

OVWC is in the process of ranking their CII customers according to annual water use and monitor the effectiveness of implemented audit recommendations.

In the past few years, OVWC focused on meter installation for their CII customers. The conservation program for CII customers program did not include a ULFT program until 2005.

In 2006, OVWC plans to complete the identification of all CII customers by standard industrial classification (NAICS) codes.

4.1.9 DMM 11: Conservation Pricing

Prior to installing meters in the OVWC service area, an annual flat rate was used for each of the customer classes. Within a year of installing meters throughout the OVWC service area, the current tiered pricing program for 2005 was implemented. In January 2005, OVWC began invoicing bi-monthly all of their customers based upon a tiered rate structure. A copy of the tiered rates is included in Appendix I.

4.1.10 DMM 12: Conservation Coordinator

In 2000 OVWC created a single Water Conservation Coordinator position to put into practice the water conservation program, including DMM implementation and report preparation. The water conservation coordinator has more than 35 years of experience with the OVWC system and dedicates twenty-five percent of both his time and another staff member's time to the water conservation program.





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4.1.11 DMM 13: Water Waste Prohibition

Water waste prohibition is an ongoing component of the OVWC's water conservation program. OVWC enacts the following water waste prohibitions:

- Water shall not be allowed to discharge, flow, or run to waste into any gutter, sanitary sewer, water course or storm drain, or to any adjacent lot.
- Water fixtures or heating or cooling devices shall not be allowed to leak or discharge.
- Ponds, swimming pools, and/or fountains without water recirculating devices are not permitted.
- Customer leaking pipes, fixtures, and/or sprinklers shall be repaired immediately.
- Mid-day irrigation and use of a water hose not equipped with a control nozzle of water are not permitted.
- Use of a hose to clean sidewalks, driveways, patios, streets, and commercial parking lots is not permitted, unless specifically required for health and safety reasons.

The water waste prohibition program is implemented depending on normal, dry and drier year conditions. However, OVWC employees regularly patrol the service area and receive feedback from customers to ensure no water waste.

Please refer to Appendix K for OVWC Water Shortage Contingency Plan and Emergency Response Plan. A list of mandatory prohibitions for various stages of water supply shortages is provided in Section 5 of the UWMP.

4.1.12 DMM 14: Residential Ultra Low Flow Toilet (ULFT) Replacement Programs

In conjunction with SJWD, the Residential ULFT Replacement Program has been implemented in the OVWC service area since 2002. High-water-using toilets are replaced by 1.6-gallon per flush toilets in single-family and multi-family residences. Rebates up to \$75 per toilet replacement are offered to customers. The new toilet is inspected and the old toilet is removed from property and destroyed. OVWC replaced 83 single-family toilet units in 2003 and 29 in 2004. A copy of a flyer regarding toilet replacement rebate and records of toilets replaced are included in Appendix L.





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The estimated water saving obtained by implementing this program is 9,000 gallons per ULFT unit per year. With significant savings realized, OVWC will continue to implement the ULFT program.

4.2 Evaluation of DMMs not implemented

OVWC strives to encourage water conservation within its service area by implementing the DMMs listed in the Act. However, not all of the DMMs are practical for OVWC to implement.

4.2.1 DMM 06: High-Efficiency Washing Machine Rebate Programs

In 2005, OVWC began billing metered connections based upon commodity rates. The high-efficiency washing machine rebate program was not cost effective before the implementation of commodity rates.

Pacific Gas and Electric Company (PG&E) and the Sacramento Municipal Utility District (SMUD) offer rebates to promote washing machine replacements. However, OVWC is considering the possibility of offering rebates to customers for the replacement of washing machines in 2006.

4.2.2 DMM 10: Wholesale Agency Assistance Programs

OVWC is a retail water agency and, as such, DMM 10 is non applicable to the OVWC UWMP. However, as a wholesale customer OVWC continues to coordinate its collective DMMs efforts with SJWD.





Section 5 – Water Shortage Contingency Plan

5.1 Stages of Action

OVWC has adopted the SJWD’s water conservation program as part of its water shortage contingency plan. OVWC applies a five stage rationing plan during declared water shortages. The rationing plan determines a consumption reduction up to 50 percent of the normal consumption depending of causes, severity, and anticipated duration of the water supply shortage. Table 5.1 summarizes the OVWC rationing plan stages of action. A copy of the OVWC Water Shortage Contingency Plan is included in Appendix K.

Table 5.1 – Water Supply Shortage Stages and Conditions

Stage No.	Water Supply Condition	% Shortage
1. Normal Water Supply	7-Step Program to Achieve Water Use Efficiencies	0%
2. Water Warning	Stage 1, Additional Measures; and Landscape Irrigation Restrictions.	5-10%
3. Water Shortage	Stage 1 and Stage 2, and Increased Irrigation Restrictions	11-25%
4. Water Crisis	Stage 1 and Stage 3, and Increased Irrigation Restrictions	26-50%
5. Water Emergency	Stage 1 and Stage 4, and Landscape Irrigation Prohibited. No new connections.	At least 50%

5.2 Estimate of Minimum Supply for Next Three Years

OVWC does not foresee a reduction in the amount of supply available over the next three years. The contractual amount 7,500 AFA of wholesale surface water from SJWD is sufficient to meet OVWC’s water demands. If a single dry year or multiple-dry-year occurs, the surface water supply as previously noted for planning purposes in Sections 3.3 and 3.7 could be reduced to 4,150 AFA. If surface water is reduced, OVWC intends to supplement its primary supply of surface water by utilizing its two emergency groundwater wells.

5.3 Catastrophic Supply Interruption Plan

In the event of a supply emergency, OVWC must be prepared to implement an emergency program until normal supplies are restored. As mentioned previously, OVWC currently has two groundwater wells, which are used during emergency events. One of the two existing wells is diesel-powered and may be operated during electric power outages. The second well is powered by electricity. OVWC is currently reviewing options to implement alternate power sources to improve the groundwater system for both dry-year and emergency conditions. OVWC conducts annual maintenance for their wells and conducts a flushing program every month to ensure groundwater production is available for potential emergencies.

OVWC is responsible to prepare and submit every year an Emergency Response Plan to the Department of Health Services (DHS). The Emergency Response Plan presents the procedures to be followed during emergencies or disasters and also provides emergency contact information.





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A copy of the OVWC Water Shortage Contingency Plan and Emergency Response Plan is included in Appendix K.

5.4 Prohibitions, Penalties, and Consumption Reduction Methods

The OVWC Water Shortage Contingency Plan includes prohibitions on unnecessary and wasteful uses of water. Some of the prohibitions are washing sidewalks and driveways with potable water, plumbing leaks, and non-recycling devices for ponds, pools, and fountains. Table 5.2 summarizes the prohibitions applied during water shortages.

Table 5.2 – Mandatory Water Use Prohibitions

Prohibitions	Mandatory Prohibitions Water Supply Shortage				
	Stage 1 Normal Water Supply	Stage 2 Water Warning	Stage 3 Water Shortage	Stage 4 Water Crisis	Stage 5 Water Emergency
Unnecessary and wasteful uses of water.	X	X	X	X	X
Using potable water for street washing.	X	X	X	X	X
Free-flowing hoses for all uses.	X	X	X	X	X
Leaking consumer's pipes or faulty sprinklers.	X	X	X	X	X
Non-recirculating ponds, pools, spas, or ornamental fountains.	X	X	X	X	X
Landscape irrigation restrictions based upon "odd-even" schedules.		X	X	X	X
Automatic sprinkler system shall not be set to work during peak hours.		X	X	X	X
Using potable water for street washing except as necessary for health, sanitary, or fire protection purposes.		X	X	X	X
Restaurants shall serve water only upon specific request.		X	X	X	X
No potable water shall be used to fill or refill new pools, artificial lakes, ponds, or streams.				X	X
Water use for ornamental fountains shall be prohibited.				X	X
Washing automobiles or equipment shall be done at a commercial establishment that uses recycled water.				X	X
No potable water shall be used for construction purposes (dust control, compaction, or trench jetting).					X
New connections to the OVWC shall not be allowed.					X

OVWC has an action plan to ensure water conservation programs are being applied. The plan of action is presented in Table 5.3.





Table 5.3 – Consumption Reduction Methods

Consumption Reduction Methods	Stage When Method Takes Effect					Projected Reduction (%)
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	
Conservation patrol responding to reports of water wasting incidents.	X	X	X	X	X	4%
Education program.	X	X	X	X	X	Up to 4%
Plumbing fixtures replacement.	X	X	X	X	X	Up to 4%
On-site evaluation and inspection of irrigation equipment.	X	X	X	X	X	Up to 4%
Distribute educational information explaining other stages and forecast future actions. Request voluntary water conservation.		X	X	X	X	5 – 10%
Cooperate with SJWD in a media outreach program.		X	X	X	X	5 – 10%
Instruct all consumers to reduce consumption by 11-25%.			X	X	X	11 – 25%
Mandatory compliance to all water conservation measures required.				X	X	26 – 50%
Comply with a rationing program through percentage cutbacks as requested by SJWD.				X	X	26 – 50%
Comply with request for pumping groundwater from the emergency wells to augment water supply.				X	X	26 – 50%

In case of a violation of the water shortage contingency plan by an OVWC customer, OVWC issues the offender a violation notice with an explanation of actions to avoid further violations. If the problem remains persistent, OVWC is obligated to contact the offender and disconnect the water service. A reconnection fee is due prior to reinstatement of water service.

5.5 Analysis of Revenue of Reduced Sales during Shortages

OVWC recognizes that significant reduction in water sales during dry-years may reduce operational revenues; and as such, OVWC will rely upon a combination of operational cash reserves and potential price adjustments for metered units of water consumption.

5.6 Draft Ordinance and Use Monitoring Procedure

According to the contract between OVWC and SJWD, and depending on water-year conditions, SJWD and its retail water agency members will determine the water supply shortage stage and pro-rata reductions in water use for each of the SJWD member agencies. Detailed descriptions of each water shortage stage and copies of the OVWC Water Shortage Contingency Plan and Emergency Response Plan are attached in Appendix K. As noted above in Section 3.3 and Section 3.7 during dry-year and drought year conditions of water shortages when inflow to Folsom Reservoir is anticipated to be less than 950,000 acre-feet SJWD will allocate its limited supply of wholesale water. The severity of the water shortage in Folsom Reservoir will establish





2005 Urban Water Management Plan (UWMP)

the water shortage stage and the accompanying mandatory prohibitions. The exact allocation of water supply from SJWD to OVWC and the other SJWD water agency retail members during dry-year and drought conditions is being evaluated in the current SJWD wholesale master planning efforts, and has yet to be determined by SJWD and its agency members.





Section 6 – Recycled Water Plan

6.1 Wastewater Quantity, Quality, and Current Uses

The Sacramento Regional County Sanitation District (SRCSD) is responsible for the operation of the Sacramento Regional Wastewater Treatment Plant (SRWTP). The service area covered by SRWTP collection system encompasses the greater Sacramento Metropolitan area, and includes the OVWC service area.

6.1.1 Wastewater Generation

Municipal wastewater is generated in the service area from a combination of residential and commercial sources. The SRCSD is responsible for the collection, treatment, and disposal or reuse of wastewater generated in the OVWC's service area. Presented on Table 6.1 are the current and projected wastewater collected and treated in the service area.

Table 6.1 – Wastewater Collection and Treatment, AFA

Type of Wastewater	2000	2005	2010	2015	2020	2025	2030
Wastewater Collected and Treated in Service Area	2,430	2,660	2,780	2,880	2,950	2,990	3,010
Volume That Meets Recycled Water Standard Available in OVWC Service Area	0	0	0	0	0	0	0

Collected wastewater is transported to the SRWTP in Elk Grove, located approximately 30 miles southwest of OVWC service area. The regional plant serves the entire Sacramento Metropolitan area including the unincorporated area of Sacramento County where the OVWC service area is located. The SRWTP receives and treats an average of approximately 154 mgd of dry weather flow. The current capacity of the plant is approximately 181 mgd.

6.1.2 Wastewater Treatment and Disposal

The SRWTP provides secondary level wastewater treatment consisting of mechanical bar screens, aerated grit removal, primary sedimentation, pure oxygen activated sludge aeration, secondary clarification, chlorine disinfection, and dechlorination just prior to discharge to the Sacramento River through an outfall with a multi-port diffuser. Discharge to the Sacramento River must be diverted to emergency storage basins when a river to effluent dilution ration of 14:1 cannot be maintained. Emergency storage basins are also occasionally used to store raw wastewater, or primary or secondary effluent.





2005 Urban Water Management Plan (UWMP)

6.1.3 Recycled Water Feasibility

Recycled water is not currently available in OVWC service area. The source of recycled water is located at a significant distance (approximately 30 miles) and the cost of conveying recycled water to the service area would be extremely expensive compared to other sources of water that are available. Therefore, recycled water is not a viable option to reduce OVWC's water demand.

6.2 *Potential and Projected Use, Optimization Plan with Incentives*

OVWC service area consists of mostly residential and commercial customers. The only potential use of recycled water would be landscape irrigation. However, as mentioned previously, recycled water is not a feasible option in OVWC service area. For this reason, OVWC does not have a program to promote the use of recycled water.





Section 7 – Acronyms

AFA	Acre-Feet Annually
AWWA	American Water Works Association
CII	Commercial, Industrial, and Institutional
CIMIS	California Irrigation Management Information System
CTP	Cooperative Transmission Pipeline
DHS	Department of Health Services
DMM s	Demand Management Measures
DWR	Department of Water Resources
ET ₀	Evapotranspiration Rate, (in inches)
OVWC	Orange Vale Water Company
PG&E	Pacific Gas and Electric Company
RWA	Regional Water Authority
SACOG	Sacramento Area Council of Governments
SJWD	San Juan Water District
SMUD	Sacramento Municipal Utility District
SRCSD	Sacramento Regional County Sanitation District
SRWTP	Sacramento Regional Wastewater Treatment Plant
TDS	Total Dissolved Solids
ULFT	Ultra Low Flow Toilet
USBR	U.S. Bureau of Reclamation
UWMP	Urban Water Management Plan
WTP	Water Treatment Plant



APPENDIX A

Urban Water Management Plan Act

Section 1 – Agency Coordination

Water Code section 10620

10620. (a) Every urban water supplier shall prepare and adopt an urban water management plan in manner set forth in Article 3 (commencing with section 10640).

(b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d) (1) an urban water supplier may satisfy the requirements of this part by participating in area wide, regional, watershed, or basin wide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

(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.

(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other government agencies.

(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 from other regions.

Water Code section 10617

10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplier from public water system subject to Chapter 4 (commencing with Section 116275) of part 12 of Division 104 of the Health and Safety Code.

Section 2 – Contents of UWMP

Water Code section 10631

10630. It is the intent of the Legislation, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

Water Code section 10631

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

(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected 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.

Water Code section 10631

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

(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)...

Water Code section 10631

10631

(b) If groundwater is identified as an existing or a planned source of water available to 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.

(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.

Water Code section 10631

10631

(c) 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:

- (1) An average water year.*
- (2) A single dry water year.*
- (3) Multiple dry water years.*

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.

Water Code section 10631

10631 *(d) Describe the opportunities for exchange or transfer of water on a short-term or long-term basis.*

Water Code section 10631

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.

- (2) Agricultural.*

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

Water Code section 10631

10631 *(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:*

(1) A description of 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:

(2) A schedule of implementation for all water demand management measures proposed or described in the plan.

(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.

(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.

(g) An evaluation of each water demand management measure listed in paragraph (1) of 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:

(j) Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that council in accordance with the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated September 1991, may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).

(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) A description of 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.

Water Code section 10631

10631 (g) An evaluation of each water demand management measure listed in paragraph (1) of 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.

Water Code section 10631

10631 (h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

Water Code section 10631

10631 (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 Code section 10631

10631 (k) Urban water suppliers that rely upon a wholesale agency for a source of water, shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

Section 3 – Determination of DMM Implementation

Water Code section 10631.5

10631.5. The department shall take into consideration whether the urban water supplier is implementing or scheduled for implementation, the water demand management activities that the urban water supplier identified in its urban water management plan, pursuant to Section 10631, in evaluating applications for grants and loans made available pursuant to Section 79163. The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities.

Section 4 – Water Shortage Contingency Plan

Water Code section 10632 (a)

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.

Water Code section 10632 (b)

10632 (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.

Water Code section 10632 (c)

10632 (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.

Water Code section 10632 (d-f)

10632 (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.

Water Code section 10632 (g)

10632 (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.

Water Code section 10632 (h & i)

10632 (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.

Section 5 – Recycled Water Plan

Water Code section 10633

10633 The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

Water Code section 10633 (a-c)

10633 (a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

(b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.

(c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.

Water Code section 10633 (d-g)

10633 (d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

(e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

(f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.

(g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

Section 6 – Water Quality Impacts on Reliability

Water Code section 10634

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 (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

Section 7 – Water Service Reliability

Water Code section 10635

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.

(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

(c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.

(d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

Section 8 – Adoption and Implementation of UWMP

Water Code section 10640

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630).

The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

Water Code section 10641

10641. An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

Water Code section 10642

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.

Water Code section 10643

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

Water Code section 10644

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.

(b) The department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part. The report prepared by the department shall identify the outstanding elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

Water Code section 10645

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.

Section 9 – Miscellaneous Provisions

Water Code section 10650 - 10657

APPENDIX B

Orange Vale Water Company Notice of Public Hearing for 2005 Urban Water Management Plan

**PUBLIC NOTICE REQUIREMENTS FOR
2005 URBAN WATER MANAGEMENT PLAN**

6066 Publication of notice pursuant to this section shall be once a week for two successive weeks. Two publications in a newspaper published once a week or oftener, with at least five days intervening between the respective publication dates not counting such publication dates, are sufficient. The period of notice commences upon the first day of publication and terminates at the end of the fourteenth day, including therein the first day.

Public Notices Published: October 18th, and 25th, 2005.

Public Hearing: November 1st, 2005.

Draft Public Notice

**ORANGE VALE WATER COMPANY NOTICE OF HEARING OF
URBAN WATER MANAGEMENT PLAN 2005**

PUBLIC NOTICE is hereby given that on the date of November 1st, 2005, at the hour of 7:00 p.m., a public hearing will be held at 9031 Central Avenue, Orange vale, California 95662, at which time the Orange Vale Water Company Board of Directors will consider the following:

REQUIRED REPORT ON URBAN WATER MANAGEMENT PLAN 2005

The purpose of this hearing is to present the report to the Orange Vale Water Company Board of Directors and accept and respond to any public questions or comments regarding the Urban Water Management Plan. This report was prepared to provide guidelines for long-term water management for the Orange Vale Water Company. Comments on the Urban Water Management Plan must be presented at the hearing or received by Orange Vale Water Company at the address noted below prior to 8:00 p.m. on November 1st, 2005.

Copies of the Urban Water Management Plan may be reviewed at the following locations:

Orange Vale Water Company:

9031 Central Avenue
Orange Vale, California 95662.

Contact Person: Sharon Wilcox, General Manager Orange Vale Water Company

PO Box 620800
Orange Vale 95662-0800
(916) 988-1693

**Published in Sacramento Bee
October 18 and 25, 2005**

NO 336 PUBLIC NOTICE

**ORANGE VALE WATER COMPANY
NOTICE OF HEARING OF
URBAN WATER MANAGEMENT PLAN 2005**

PUBLIC NOTICE is hereby given that on the date of November 1st, 2005, at the hour of 7:00 p.m., a public hearing will be held at 9031 Central Avenue, OrangeVale, California 95662, at which time the Orange Vale Water Company Board of Directors will consider the following:

**REQUIRED REPORT ON URBAN WATER
MANAGEMENT PLAN 2005**

The purpose of this hearing is to present the report to the Orange Vale Water Company Board of Directors and accept and respond to any public questions or comments regarding the Urban Water Management Plan. This report was prepared to provide guidelines for long-term water management for the Orange Vale Water Company. Comments on the Urban Water Management Plan must be presented at the hearing or received by Orange Vale Water Company at the address noted below prior to November 1st, 2005.

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Contact Person: Sharon Wilcox
General Manager
Orange Vale Water Company

PO Box 620800
Orange Vale, CA 95662-0800
(916) 988-1693
Run 21 October 18 & 25, 2005



Community Bulletin Board

HEALTH FAIR

Divine Savior Catholic Church @ 9079 Greenback Lane, Orangevale will be hosting a health fair open to the community on Sunday, Oct. 30 from 8:30 till 1:30 p.m.

Sutter VNA will offer flu and pneumonia vaccinations. Mercy General Hospital will be offering glucose and cholesterol screening (for optimal results—please fast).

There will be a variety of other exhibitors present including American Cancer Society, Del Oro Caregiver Resource Center, Golden State Donor Services, Rebuilding Together (Safe at Home Program), SAIF—Seniors Against Investment Fraud, Eskaton Senior Services, Health Rights Hotline, and Sacramento Medical Reserve Corps to name some. For further info contact 989-7400.

CARNIVAL

Halloween Carnival

Monday, October 31st

Putt Putt Golf * Plinko * Mini Hoop * Color Wheel * Quack Attack * Tic Tac Toe * Ring Toss * Potty Toss * Fishing Wall

Place: Plaza Park (Corner of Fair Oaks Blvd. & California Ave. in the Old Fair Oaks Village)

Time: 1:00 p.m. to 4:00 p.m.

Cost: \$.50 per ticket (9 Games)

For more information call the Fair Oaks Recreation & Park District at 966-1036.

PUBLIC MEETING

ORANGEVALE WATER COMPANY NOTICE OF HEARING OF URBAN WATER MANAGEMENT PLAN 2005

PUBLIC NOTICE is hereby given that on the date of November 1st, 2005, at the hour of 7 pm, a public hearing will be held at 9031 Central Avenue, Orange Vale, California 95662, at which time the Orange Vale Water Company Board of Directors will consider the following:

REQUIRED REPORT ON URBAN WATER MANAGEMENT PLAN 2005

The purpose of this hearing is to present the report to the Orange Vale Water Company Board of Directors and accept and respond to any public questions or comments regarding the Urban Water Management Plan. This report was prepared to provide guidelines for long-term water management for the Orange Vale Water Company. Comments on the Urban Water Management Plan must be presented at the hearing or received by Orange Vale Water Company at the address noted below prior to November 1, 2005.

Copies of the Urban Water Management Plan may be reviewed at the following location:

Orange Vale Water Company
9031 Central Avenue
Orange Vale, California 95662
Contact Person: Sharon Wilcox,
General Manager, Orange Vale
Water Company PO Box 620800
Orange Vale, CA 95662-0800
(916) 988-1693

BOOK SALE

The Friends of the Orangevale Library hold a book sale on the first Saturday of each month. The next sale will be held on November 5 from 8:30am to noon.

The sale is held in front of the Library and proceeds benefit the Orangevale Library.

The Library is located at 8820 Greenback Lane, Orangevale (corner of Beech and Greenback).

LIBRARY PROGRAM

The Fair Oaks Library will hold a free program featuring Reading Options for Those with Low Vision.

The program is for adults and will be held on Saturday, October 29 from 2 to 3pm.

Dr. Ronald Cole, Sacramento ophthalmologist and vision rehabilitation specialist, will discuss ways that those with low vision can keep reading.

The Fair Oaks Library is located at 11601 Fair Oaks Blvd, Fair Oaks.

BAZAAR

Arcade Creek Manor, a senior citizens complex, will hold its 27th Annual Bazaar on Saturday, November 5 from 9-3pm, at 6546 Auburn Blvd and corner of Van Maren. Proceeds will be used for senior residents.

This is a chance to examine treasures collected by these senior citizens such as: crafts, clothing, books, etc. Food and drinks available.



APPENDIX C

Orange Vale Water Company Resolution Adopting 2005 Urban Water Management Plan

**ORANGE VALE WATER COMPANY
URBAN WATER MANAGEMENT PLAN**

Resolution No. 2005-004

WHEREAS, existing law requires each urban supplier to prepare and adopt an Urban Water Management Plan to update its current plan at least once every five years; and

WHEREAS, existing law requires an urban water supplier to file with the Department of Water Resources a copy of its Plan and any amendments to its Plan; and

WHEREAS, AB 2552, signed by the Governor of the State of California on September 1, 2000, requires each urban water supplier to provide any city or county, which the supplier provides a water supply, a copy of its Plan no later than 30 days after adoption; and

WHEREAS, Orange Vale water Company is an urban water supplier to more than 5,000 domestic connections, and has therefore prepared for public review, a Draft Urban Water management Plan Update, with a properly noticed public meeting held by the Company on November 1, 2005, following which a final plan was prepared;

NOW, THEREFORE, BE IT RESOLVED, BY THE BOARD OF DIRECTORS OF THE ORANGE VALE WATER COMPANY, that the Urban Water Management Plan Update is hereby adopted and the General Manger is authorized and directed to file said Plan Update with the California Department of Water Resources by December 31, 2005.

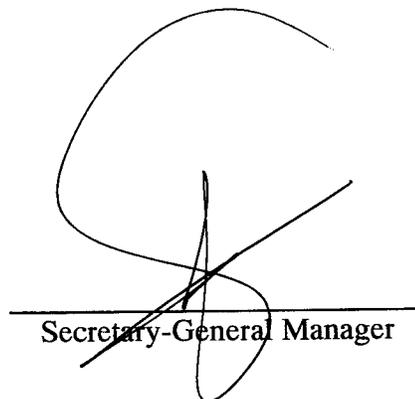
Passed and Adopted this 6TH day of DEC., 2005

Ayes: 5

Noes: 0

Abstain: 0


Board President


Secretary-General Manager

APPENDIX D

Interim Water Supply Agreement Between San Juan Water District and Orange Vale Water Company

**SAN JUAN WATER DISTRICT
INTERIM WHOLESALE WATER SUPPLY AGREEMENT**

This Agreement is entered into as of January 1, 2004, by and between San Juan Water District, a public agency ("San Juan"), and Orange Vale Water Company, a private mutual water company ("Orange Vale").

RECITALS

A. San Juan is the owner of certain water rights and contractual water entitlements, and facilities and entitlements for the diversion, treatment and conveyance of water from Folsom Reservoir, to make available treated water supplies within its wholesale and retail service areas.

B. Orange Vale is a mutual water company located within the wholesale service area boundaries of San Juan.

C. Orange Vale distributes treated water supplies made available by San Juan to Orange Vale's retail customers within Orange Vale's boundaries. San Juan has been providing treated water supplies to Orange Vale since the formation of San Juan in 1954, and currently pursuant to the 1974 Water Supply Agreement. This Agreement supersedes the 1974 Water Supply Agreement upon the effective date of this Agreement.

D. The parties have determined to enter into this Agreement pending adoption of San Juan's Surface Water Supply and Water Shortage Management Plan, after which San Juan and the Member Agencies intend to negotiate long-term wholesale water supply agreements that reflect the shortage provisions of the Surface Water Supply and Water Shortage Management Plan.

In consideration of the mutual covenants contained herein, San Juan and Orange Vale agree as follows:

1. **Recitals Incorporated.** The foregoing recitals are incorporated by reference.
2. **Definitions.** When used in this Agreement, the following terms are defined as set forth in this section:
 - A. "CVP" means the Central Valley Project.
 - B. "Orange Vale" means the Orange Vale Water Company (formerly known as Orangevale Mutual Water Company).
 - C. "Member Agencies" means the following retail water service providers receiving wholesale water service from San Juan, and the retail water service customers of San Juan: (1) Citrus Heights Water District; (2) Fair Oaks Water District; (3) Orange Vale; (4) San Juan in its capacity as a

retail water service provider; and (5) the City of Folsom relative to that portion of its service area north of the American River.

D. "1974 Water Supply Agreement" means the wholesale water supply agreement between San Juan and Orange Vale, dated September 10, 1974.

E. "Pipeline Agreement" means the "Agreement for Ownership, Utilization, Operation and Maintenance of the Cooperative Transmission Pipeline Project," effective July 1, 1997, as it may be amended from time to time, to which Citrus Heights Water District, Fair Oaks Water District, Orange Vale, Sacramento Suburban Water District and San Juan are parties.

F. "Point of Delivery" means one or more points of delivery to which San Juan will make water supplies available to Orange Vale, which are described in **Exhibit 1** to this Agreement.

G. "Reclamation" means the United States Bureau of Reclamation.

H. "San Juan" means San Juan Water District (formerly San Juan Suburban Water District).

I. "San Juan-Reclamation Agreement" means the April 12, 1954 agreement between the North Fork Ditch Company and the United States (Contract No. DA 04 167 eng 182), which was incorporated by reference in the June 19, 1962 CVP water supply contract between San Juan and the United States (Contract No. 14-06-200-152A, as amended). Under the San Juan-Reclamation Agreement, the total amount of water that may be diverted by San Juan under its pre-1914 water right and water right permit no. 4009 cannot exceed 33,000 acre feet per year at a maximum rate of 75 cfs.

J. "San Juan's CVP Water Supply Contracts" means a CVP water supply contract for 11,200 acre feet between San Juan and the United States (Contract No. 14-06-200-152A, as amended), and a CVP water supply contract for 13,000 acre feet between San Juan and the United States (Contract No. 6-07-20-W 1373), as amended and renewed from time to time.

K. "San Juan's Surface Water Supply and Water Shortage Management Plan" means the plan for managing San Juan's Water Rights and Entitlements during times of water shortage, which San Juan intends to adopt in the future in consultation with the Member Agencies.

L. "San Juan's Water Rights and Entitlements" means the water rights and entitlements of San Juan that are used to make water supplies available to Orange Vale under this Agreement, the current sources of which are listed in paragraph A of section 5 of this Agreement.

M. "San Juan's Water Treatment and Conveyance Facilities" means the water diversion, pumping, treatment and conveyance facilities to be used by San Juan to make water supplies available to Orange Vale at the Point of Delivery, which are described in **Exhibit 2** to this Agreement.

3. **Term.** This Agreement will remain in effect until December 31, 2005, which date may

be extended by written consent of the parties.

4. 1974 Water Supply Agreement Superseded. This Agreement supersedes the 1974 Water Supply Agreement.

5. Water Supplies To Be Made Available To Orange Vale.

A. Water Supplies Currently Available to San Juan. Water will be made available by San Juan to Orange Vale under this Agreement from water supplies that are available to San Juan from time to time. San Juan will use its best efforts to preserve and protect San Juan's Water Rights and Entitlements. The water supplies that are currently available to San Juan include the following: (1) a pre-1914 appropriative water right to divert at the rate of 60 cubic feet per second ("cfs") from the American River with a priority date of 1853, which is delivered from Folsom Reservoir by Reclamation without charge to San Juan under the San Juan-Reclamation Agreement; (2) an appropriative water right under permit no. 4009 (application 5830, filed on February 11, 1928) to divert at the rate of 15 cfs from the American River, which is delivered from Folsom Reservoir by Reclamation without charge to San Juan under the San Juan-Reclamation Agreement; (3) San Juan's CVP Water Supply Contracts; (4) a water supply contract dated December 7, 2000 between San Juan and Placer County Water Agency for 25,000 acre feet per year, and (5) temporary supplies of surplus water from Reclamation under Section 215 of Public Law 97-293.

B. Member Agencies To Have First Priority of Use. San Juan will operate San Juan's Water Treatment and Conveyance Facilities, and utilize San Juan's Water Rights and Entitlements, to provide a first priority of use to the Member Agencies. San Juan may use San Juan's Water Treatment and Conveyance Facilities and San Juan's Water Rights and Entitlements to provide water service to other water purveyors to the extent such water service is surplus to the needs of the Member Agencies. San Juan may transfer water under San Juan's Water Rights and Entitlements for use outside the boundaries of San Juan that San Juan determines is surplus to the water supply needs of the Member Agencies during the term of the water transfer. Prior to making such determination, San Juan will request from Orange Vale information regarding the water supply needs of Orange Vale during the term of the proposed water transfer, and San Juan will consider this information in making its determination of the availability of surplus water. San Juan will use the net revenues from each water transfer to defray the costs that are recovered through San Juan's wholesale water rates and charges under section 11 of this Agreement. Such water transfers will not: (1) result in Orange Vale receiving during the term of a water transfer less water than the amount provided for under this Agreement, without the consent of Orange Vale; or (2) increase the wholesale water rates and charges under section 11 this Agreement, without the consent of Orange Vale.

C. Beneficial Use by Orange Vale. Since the formation of Orange Vale in 1896, Orange Vale has beneficially used a portion of San Juan's Water Rights and Entitlements referred to in items (1), (2), (3) and (5) of paragraph A of this section. Orange Vale has demonstrated to the satisfaction of San Juan that Orange Vale has projected future demands for water use such that Orange Vale expects to utilize fully for reasonable and beneficial use the water supplies made available to it by San Juan.

D. Peak Demands. San Juan's Water Treatment and Conveyance Facilities are, in general, intended and designed to have sufficient capacity under normal conditions to meet the historical maximum daily water demands of water users in the Member Agencies' service areas. From time to time and place to place, higher rates of demand may be served if such water service does not interfere with normal service to any other portion of the Member Agencies' service areas. San Juan will determine when such peak demands will be served, and may limit the rate of water supply at any Point of Delivery, upon advance written notice to the Member Agency to the extent practicable.

E. Annual Water Supplies To Be Made Available by San Juan to Orange Vale. During each calendar year throughout the term of this Agreement, consistent with San Juan's Water Rights and Entitlements and subject to the terms of this Agreement (including subsections G and H of this section), San Juan will make available to Orange Vale the supplies of treated water at the Point of Delivery that are scheduled by Orange Vale. Orange Vale will make reasonable and beneficial use of the water supplies provided to Orange Vale by San Juan, in a manner that is consistent with the terms of San Juan's Water Rights and Entitlements.

F. Scheduling Water Deliveries. San Juan will schedule and make arrangements for water deliveries to Orange Vale under this Agreement, based on information provided to San Juan by Orange Vale as requested by San Juan.

G. Water Shortages and Interruptions in Water Deliveries. San Juan will use all reasonable means to ensure against: (1) conditions of shortage in the water supplies available under San Juan's Water Rights and Entitlements; and (2) interruptions in San Juan's ability to use San Juan's Water Treatment and Conveyance Facilities in making water supplies available to Orange Vale at the Point of Delivery, where such conditions or interruptions could result in reductions or interruptions in water service to Orange Vale under this Agreement. San Juan may temporarily discontinue or reduce the water supplies made available to Orange Vale under this Agreement for the purposes of investigation, inspection, maintenance, repair, replacement or improvement of any of San Juan's Water Treatment and Conveyance Facilities, but to the extent practicable, San Juan will: (1) consult with Orange Vale and consider Orange Vale's water supply needs concerning a planned or unplanned interruption in water deliveries; (2) provide Orange Vale reasonable prior notice of any such interruption in water deliveries; and (3) use its best efforts to limit the duration of such conditions of shortage and interruption in water deliveries.

H. Water Allocations During Conditions of Shortage. To the extent that: (1) the water supplies available in any year under San Juan's Water Rights and Entitlements, and/or (2) the availability of use of San Juan's Water Treatment and Conveyance Facilities, are insufficient to make available the full water supplies requested by Orange Vale and other agencies who contract for wholesale water supplies from San Juan, San Juan will allocate its available water supplies in an equitable manner.

6. Point of Delivery and Measurement.

A. Identification of Point of Delivery and Measurement. Water supplies made available by San Juan to Orange Vale under this Agreement will be delivered to and measured at one or more Points of Delivery. San Juan will be responsible for furnishing, installing, operating and maintaining in good operating condition water control and measurement facilities at each Point of Delivery.

B. Normal Minimum Water Service Pressure at Point of Delivery. San Juan will use its best efforts to operate San Juan's Water Treatment and Conveyance Facilities to provide the normal minimum water service pressure at each Point of Delivery as specified in **Exhibit 3** to this Agreement.

C. No Liability for Distribution of Water Beyond Orange Vale's Point of Delivery. To the extent that San Juan makes water available to Orange Vale consistent with the terms of this Agreement, San Juan will not be liable for the control, carriage, handling, use, disposal or distribution of water supplies made available to Orange Vale under this Agreement past the Point of Delivery, unless the cause of such liability can reasonably be determined to be San Juan's action or inaction in making water available before or at the Point of Delivery. To the extent that San Juan makes water available to Orange Vale consistent with the terms of this Agreement, San Juan will not be liable for claims of damage of any nature whatsoever, including but not limited to property damage or personal injury, arising out of or connected with the control, carriage, handling, use, disposal or distribution of water supplies made available to Orange Vale under this Agreement past the Point of Delivery, unless the cause of such liability can reasonably be determined to be San Juan's action or inaction in making water available before or at the Point of Delivery. Unless the cause of such liability can reasonably be determined to be San Juan's actions or inactions before or at the Point of Delivery, Orange Vale will indemnify, defend and hold harmless San Juan and its directors, officers, employees and agents from any such damages or claims of damages. To the extent that San Juan makes water available to Orange Vale consistent with the terms of this Agreement, San Juan will not be liable for changes in water quality or violations of drinking water standards downstream of the Point of Delivery, unless the cause of such changes or violations can reasonably be determined to be San Juan's action or inaction in making water available before or at the Point of Delivery. San Juan will consult and cooperate with Orange Vale to avoid such changes or violations.

7. Compliance with the Requirements of San Juan's CVP Water Supply Contracts. To ensure that the provisions of San Juan's CVP Water Supply Contracts that apply to the delivery of water within Orange Vale's service area under this Agreement are met, Orange Vale will ensure that: (a) all surface water delivered within Orange Vale's boundaries is measured at each service connection with water measuring devices or water measuring methods of comparable effectiveness that have been approved by the Contracting Officer (as defined in San Juan's CVP Water Supply Contracts), on a schedule that has been approved by the Contracting Officer; and (b) an effective water conservation and efficiency program that has been approved by the Contracting Officer is implemented within Orange Vale's service area.

8. Water Quality. Water supplies made available by San Juan to Orange Vale under this Agreement will meet or exceed the minimum standards for drinking water quality in effect at the time of delivery as established by: (a) the California Department of Health Services, Office of Drinking Water Standards, or its successor agency; and (b) federal agencies with jurisdiction over drinking water standards. San Juan will provide water quality reports to Orange Vale as required by law.

9. Operation, Maintenance and Improvement of San Juan's Water Treatment and Conveyance Facilities.

A. San Juan's Water Treatment and Conveyance Facilities. San Juan will utilize San Juan's Water Treatment and Conveyance Facilities to make water supplies available to Orange Vale at the Point of Delivery.

B. Operation, Maintenance and Capital Improvement of San Juan's Water Treatment and Conveyance Facilities. San Juan will operate, maintain, repair, replace and improve San Juan's Water Treatment and Conveyance Facilities as San Juan determines to be prudent, consistent with legal obligations and sound engineering, construction and utility operating practices, for the mutual benefit of Orange Vale and the other Member Agencies. San Juan will consult with Orange Vale and the other Member Agencies prior to planning and undertaking capital improvements to San Juan's Water Treatment and Conveyance Facilities.

C. San Juan's Cooperative Transmission Pipeline Project. The utilization, operation and maintenance of San Juan's cooperative transmission pipeline will be in accordance with the terms of the Pipeline Agreement. Nothing in this Agreement amends or supersedes the provisions of the Pipeline Agreement.

10. Area in Which Water May Be Used. Water supplies made available to Orange Vale under this Agreement will not be sold or otherwise disposed of by Orange Vale for use outside of the boundaries of Orange Vale as of the effective date of this Agreement, without the prior written consent of San Juan, which consent may be withheld in the reasonable discretion of San Juan.

11. Water Rates and Charges.

A. Wholesale Water Rates and Charges. San Juan will set wholesale water rates and charges from time to time for making treated water supplies available to Orange Vale, and other agencies that contract for wholesale water supplies from San Juan, to recover San Juan's costs of making treated water supplies available, including without limitation, the cost of untreated water under San Juan's Water Rights and Water Entitlements, and the cost of operation, maintenance, repair, replacement of, and capital improvements to, San Juan's Water Treatment and Conveyance Facilities. San Juan's wholesale water rates and charges will include the melded cost of water from San Juan's Water Rights and Water Entitlements. San Juan's wholesale water rates and charges will include interest and penalties for delinquent payments, as appropriate. San Juan will determine its wholesale water rates and charges based on cost-of-service principles and other applicable provisions of law. San Juan will ensure that revenues collected by San Juan from Orange Vale and other Member Agencies

for wholesale water service are equitably used for the benefit of such wholesale water customers. San Juan will provide Orange Vale with 150 days' advance notice of proposed changes in water rates and charges under this Agreement, provide Orange Vale an opportunity to comment on such proposed changes prior to adoption of changes by San Juan, and address Orange Vale's comments to the extent practicable.

B. Schedule for Payment. San Juan will bill Orange Vale quarterly in advance for one-quarter of the estimated annual water service charges and for estimated quarterly water deliveries to Orange Vale under this Agreement. The estimates for quarterly water deliveries will be based on Orange Vale's actual average water deliveries for the corresponding quarter in the 6 preceding years. San Juan will bill Orange Vale a minimum of 15 days prior to the beginning of each quarter. Orange Vale will pay San Juan within 30 days from the beginning of each calendar quarter. Within 30 days after the end of each calendar year, San Juan will reconcile the actual water deliveries with the estimated water deliveries, and determine the rates and charges to Orange Vale for the actual quantities of water made available. San Juan will either bill Orange Vale for any additional amount owed, or promptly refund to Orange Vale any amounts paid by Orange Vale in excess of the amount owed. If San Juan determines that Orange Vale owes San Juan an additional amount, San Juan will bill Orange Vale within 45 days of the determination, and Orange Vale will pay San Juan within 45 days of receipt of the bill. If San Juan determines that Orange Vale has paid in excess of the amount owed, San Juan will pay Orange Vale within 45 days of such determination.

C. General Obligation of Orange Vale. The obligations of Orange Vale under this Agreement will constitute general obligations of Orange Vale, and Orange Vale will use all of the powers and resources available to it under the law to collect the funds necessary for, and to pay, Orange Vale's obligations to San Juan under this Agreement. Orange Vale as a whole is obligated to pay San Juan the payments becoming due under this Agreement, notwithstanding any individual default by its water users, customers or others in the payment to Orange Vale of assessments, taxes or other rates and charges levied by Orange Vale.

12. General Provisions.

A. Supporting Resolutions. Each party represents that it has legal authority to enter into this Agreement and to perform its obligations hereunder, and will provide to the other party concurrent with execution of this Agreement, a duly authorized resolution or other document authorizing the person executing this Agreement to do so.

B. Integration. This Agreement constitutes the sole, final, complete, exclusive and integrated expression and statement of the terms of this contract concerning the subject matter of this Agreement, and supersedes all prior negotiations, representations or agreements, either oral or written, that may be related to the subject matter of this Agreement.

C. Construction and Interpretation. The parties acknowledge that this Agreement has been arrived at through negotiation, and that each party has had a full and fair opportunity to revise the terms of this Agreement. Consequently, the normal rule of construction that

any ambiguities are to be resolved against the drafting party will not apply in construing or interpreting this Agreement.

D. Severability. The invalidity, illegality or unenforceability of any provision of this Agreement will not render the other provisions invalid, illegal or unenforceable.

E. Periodic Review; Amendment. San Juan and the Member Agencies plan to meet not less than once every five years to review the terms of their wholesale water supply agreements, and discuss possible amendment thereto. The terms of this Agreement may be modified or amended only by a subsequent written agreement approved and executed by the parties.

F. Notices. Any notice and other communications required under this Agreement will be in writing, and will be deemed to have been duly given upon the date of service, if: (a) served personally on the party to whom notice is to be given; or (b) sent by electronic mail, and the party to whom notice is to be given confirms receipt; or (c) mailed, on the third day after mailing, if mailed to the party to whom notice is to be given, by first-class mail, postage prepaid, and properly addressed to the following:

General Manager
San Juan Water District
Post Office Box 2157
Granite Bay, California 95746-2157

General Manager
Orange Vale Water Company
Post Office Box 620800
Orangevale, CA 95662

G. Relationship of Parties. Nothing in this Agreement will be construed to create an association, joint venture, trust or partnership, or to impose a trust or partnership covenant, obligation or liability.

H. No Third-Party Beneficiaries. This Agreement will not be construed to create any third-party beneficiaries, except that this Agreement recognizes that Orange Vale is a third-party beneficiary of San Juan's contractual water entitlements that are set forth in paragraph A of section 5 of this Agreement. This Agreement is for the sole benefit of the parties and their respective successors and permitted transferees and assigns, and no other person or entity will be entitled to rely on or receive any benefit from this Agreement or any of its terms.

I. Successors and Assigns. This Agreement will bind and be for the benefit of the respective successors and assigns of the parties, except that, no assignment or transfer of any rights or duties of a party under this Agreement will be effective unless approved in writing by the other party.

J. Opinions and Determinations. Where the terms of this Agreement provide for an action to be based on the opinion, determination, approval or review of either party, such terms are not intended to be, and will not be construed as permitting, such action to be arbitrary, capricious or unreasonable. Any opinion, determination, approval or review required of a party under this Agreement will be provided in a timely manner.

K. Reasonable Cooperation. The parties will reasonably cooperate with each other, including the execution of all necessary documents, to carry out the purposes and intent of this Agreement. Each party will reasonably cooperate with the other to provide materials and information as requested from time to time to facilitate implementation and review of this Agreement, and the parties' respective rights and duties thereunder.

L. General Indemnity. Each party to this Agreement will indemnify, defend and hold harmless the other party, and its respective directors, officers, employees and agents, from and against any and all liability, losses, claims, damages, expenses, demands, settlements and costs (including, but not limited to, interest, penalties, attorney, expert witness and consulting fees, and litigation costs) of any nature arising out of the party's performance under this Agreement and caused by any negligent act or omission, willful misconduct or violation of law of or by the party, or the party's employees, agents, contractors and subcontractors.

M. Waiver. The waiver at anytime by a party of its rights with respect to a default or other matter arising in connection with this Agreement will not be deemed to be a waiver with respect to any subsequent default or matter.

N. Remedies Not Exclusive. The remedies provided in this Agreement are cumulative and not exclusive, and are in addition to any other remedies that may be provided by law or equity. The exercise by either party of any remedy under this Agreement will be without prejudice to the enforcement of any other remedy.

The foregoing is hereby agreed to by the parties and executed in counterpart duplicate originals as of the effective date of this Agreement.

SAN JUAN WATER DISTRICT

ORANGE VALE WATER COMPANY

By Dorothy Kilgore
President, Board of Directors

By Frederick Tomich
President, Board of Directors
Frederick S. Tomich

ATTEST:

By Aue Yakumoto
Secretary

By Sharon L. Wilcox
Secretary **Sharon L. Wilcox**

Approved as to form:

Paul M. Bartkiewicz
Paul M. Bartkiewicz,
Bartkiewicz, Kronick & Shanahan

Approved as to form:

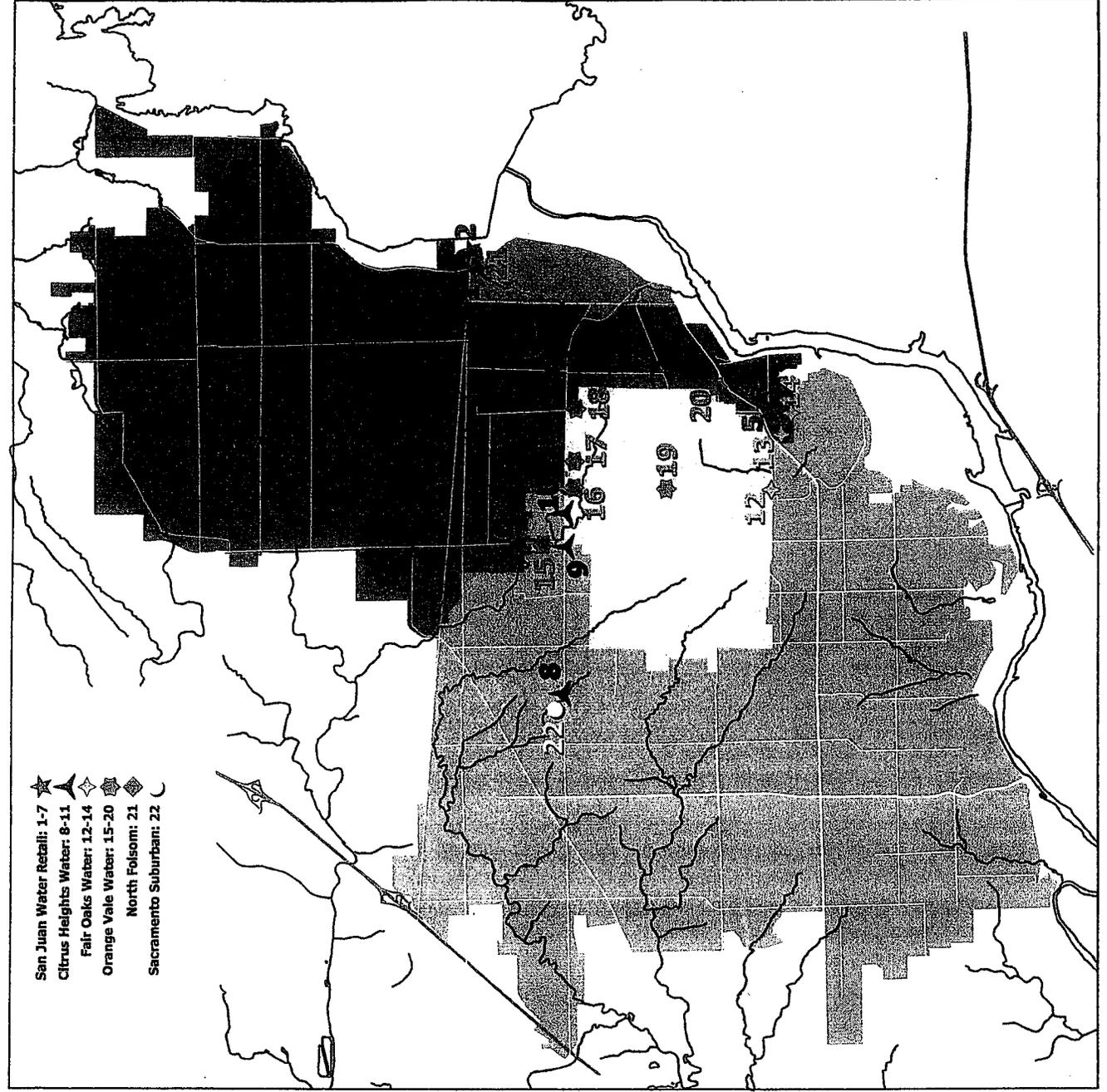
Jennifer L. Haeder
Jennifer L. Haeder,
Downey, Brand LLP

List of Exhibits

1. Point of Delivery
2. San Juan's Water Treatment and the Conveyance Facilities
3. Normal Minimum Water Service Pressure

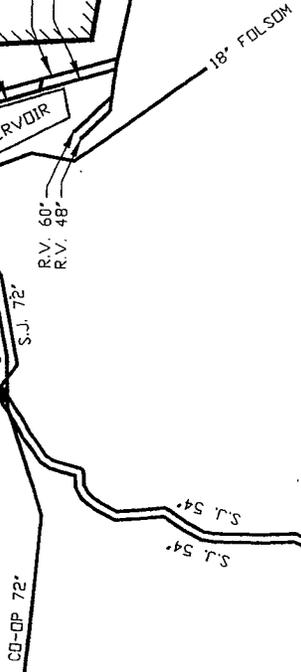
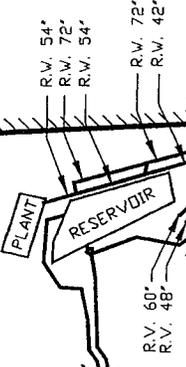
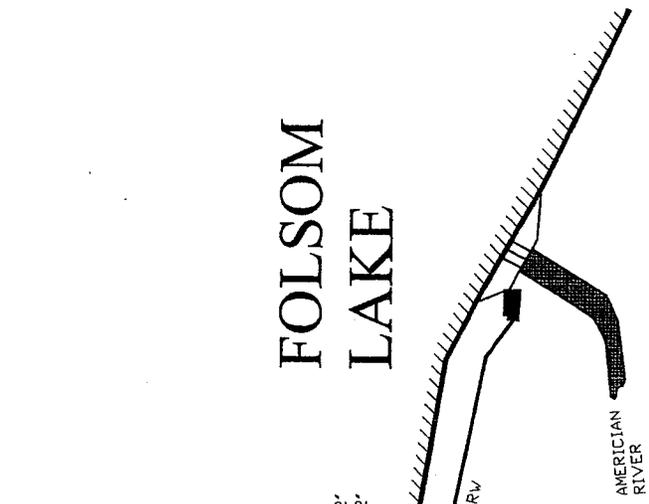
Wholesale/Retail Diversion Point Locations

Num	Diversion Point Location
1	San Juan Retail at Beacon Pump Station
2	San Juan Retail at Hinkle Pump Station
3	San Juan Retail at Santa Juanita Ave and Canyon Falls Dr. Cardinal Meter
4	San Juan Retail Lincoln Palisades Meter on Main Av
5	San Juan Retail Lake Natoma Dr & Main Av.
6	San Juan Retail at Hazel Av. & Eden Oaks Av.
7	San Juan Retail Various Points on Fair Oaks 40"
8	Citrus Heights W.D. Oak Av. & C Bar C Co-op 24"
9	Citrus Heights W.D. Oak Av. & Hazel Av. 18"
10	Citrus Heights W.D. Oak Av. West of Filbert 8"
11	Citrus Heights W.D. Canyon Falls & Santa Juanita 42"
12	Fair Oaks W.D. Filbert Ave. & Pershing Av. Co-op 30"
13	Fair Oaks W.D. Main Ave. & Pershing Av. 40"
14	Fair Oaks W.D. Main Ave. & Twin Lakes 12"
15	Orange Vale W.C. Hazel Av. & Eden Oaks Av. 12"
16	Orange Vale W.C. Oak Av. & Filbert Av. 8"
17	Orange Vale W.C. Oak Ave & Chestnut Av 12"
18	Orange Vale W.C. Main Ave. & Oak Av Co-op 30"
19	Orange Vale W.C. Filbert Av. & Central Av Co-op 24"
20	Orange Vale W.C. Greenback Ln 12"
21	City of Folsom Ashland Mtr at Hinkle Pump Station 18"
22	Sacramento Suburban W.D. Co-op 48"





FOLSOM LAKE



- R.W. = RAW WATER
- R.V. = ROSEVILLE
- C.H. = CITRUS HEIGHTS
- S.J. = SAN JUAN
- F.O. = FAIR OAKS
- O.V. = ORANGEVALE
- S.S. = SACRAMENTO SUBURBAN

EXHIBIT 2
 SCHEMATIC ONLY
 NOT TO SCALE

**Minimum Normal Operating Pressures at Diversion Points
Exhibit 3**

No.	Diversion Point Location	Approximate Elevation	Pressures (Psi)
1	San Juan Retail, at Bacon Pump Station	380'	Na
2	San Juan Retail, at Hinkle Pump Station - Crown Point meter	390'	Na
3	San Juan Retail, Santa Juanita Ave and Canyon Falls Dr, Cardwell 24"	306'	23
4	San Juan Retail, Lincoln Palisades Meter on Main Ave.	259'	45
5	San Juan Retail, Lake Natoma Drive and Main Ave.	259'	45
6	San Juan Retail, Hazel Ave. and Eden Oaks Ave 12" on CHWD 42"	201'	69
7	San Juan Retail, Various points on Fair Oaks 40"	various	Na
8	Citrus Heights, W.D., Oak Ave. at C-Bar-C Park, Co-op 24"	200'	69
9	Citrus Heights, W.D., Oak Ave. at Hazel Ave., Co-op 18"	207'	66
10	Citrus Heights W.D., Oak Ave. west of Filbert Ave, Co-op 8"	212'	64
11	Citrus Heights W.D., Santa Juanita Ave & Canyon Falls Dr., 42"	306'	23
12	Fair Oaks W.D., Filbert Ave. and Pershing Ave., Co-op 30"	226'	58
13	Fair Oaks W.D., Main Ave. and Pershing Ave., 40"	256'	45
14	Fair Oaks W.D., Main Ave and Twin Lakes Dr., 12"	259'	44
15	Orange Vale W.C., Hazel Ave and Eden Oaks Av. 12"	201'	69
16	Orange Vale W.C., Oak Ave and Filbert Ave., 8"	215'	62
17	Orange Vale W.C., Oak Ave and Chestnut Ave., 12"	239'	52
18	Orange Vale W.C., Main Ave and Oak Ave., Co-op, 30"	265'	52
19	Orange Vale W.C., Filbert Ave. and Central Ave. Co-op, 24"	266'	48
20	Orange Vale W.C., Greenback Ln and River Rock Dr., 12"	256'	45
21	City of Folsom at Hinkle Pump Station, Ashland Meter, 18"	390'	Na
22	Sacramento Suburban W.D. Oak Ave. at C-Bar-C Park, Co-op, 48"	200'	69

APPENDIX E

Comparison Between Projected Water Supply and Demand During Multiple-Dry-Year Conditions (2006 - 2030)

**Projected Multiple Dry-Year Supply and Demand Comparison (2006 – 2010)
With Implementation of Water Shortage Contingency Plan and DMMs**

Table 1 Projected Supply During Multiple Dry Year Period Ending in 2010 – AFA

	2006	2007	2008	2009	2010
Supply	7,500	7,500	7,500	6,960	6,410
% of Projected Normal Year	100%	100%	100%	93%	86%

Table 2 Projected Demand During Multiple Dry Year Period Ending in 2010 – AFA

	2006	2007	2008	2009	2010
Demand ¹	4,770	4,560	4,350	4,130	3,900
% of Projected Normal Year	95%	90%	85%	80%	75%

¹ 5% to 25% Reductions in Projected Demands Realized Due to Implementation of Water Shortage Contingency Plan and DMMs

Table 3 Projected Supply and Demand Comparison During Multiple Dry Year Period Ending in 2010 – AFA

	2006	2007	2008	2009	2010
Supply Totals	7,500	7,500	7,500	6,960	6,410
Demand Totals ¹	4,770	4,560	4,350	4,130	3,900
Difference (supply minus demand)	2,730	2,940	3,150	2,830	2,510
Difference as % of Supply	36%	39%	42%	41%	39%
Difference as % of Demand	57%	65%	72%	69%	64%

¹ 5% to 25% Reductions in Projected Demands Realized Due to Implementation of Water Shortage Contingency Plan and DMMs

**Projected Multiple Dry-Year Supply and Demand Comparison (2011 – 2015)
With Implementation of Water Shortage Contingency Plan and DMMs**

Table 4 Projected Supply During Multiple Dry Year Period Ending in 2015 – AFA

	2011	2012	2013	2014	2015
Supply	7,500	7,500	7,500	6,960	6,410
% of Projected Normal Year	100%	100%	100%	93%	86%

Table 5 Projected Demand During Multiple Dry Year Period Ending in 2015 – AFA

	2011	2012	2013	2014	2015
Demand ¹	4,980	4,750	4,510	4,280	4,040
% of Projected Normal Year	95%	90%	85%	80%	75%

¹ 5% to 25% Reductions in Projected Demands Realized Due to Implementation of Water Shortage Contingency Plan and DMMs

Table 6 Projected Supply and Demand Comparison During Multiple Dry Year Period Ending in 2015 – AFA

	2011	2012	2013	2014	2015
Supply Totals	7,500	7,500	7,500	6,960	6,410
Demand Totals ¹	4,980	4,750	4,510	4,280	4,040
Difference (supply minus demand)	2,520	2,750	2,990	2,680	2,370
Difference as % of Supply	34%	37%	40%	39%	37%
Difference as % of Demand	51%	58%	66%	63%	59%

¹ 5% to 25% Reductions in Projected Demands Realized Due to Implementation of Water Shortage Contingency Plan and DMMs

**Projected Multiple Dry-Year Supply and Demand Comparison (2016 – 2020)
With Implementation of Water Shortage Contingency Plan and DMMs**

Table 7 Projected Supply During Multiple Dry Year Period Ending in 2020 – AFA

	2016	2017	2018	2019	2020
Supply	7,500	7,500	7,500	6,960	6,410
% of Projected Normal Year	100%	100%	100%	93%	86%

Table 8 Projected Demand During Multiple Dry Year Period Ending in 2020 – AFA

	2016	2017	2018	2019	2020
Demand¹	5,140	4,890	4,640	4,390	4,130
% of Projected Normal Year	95%	90%	85%	80%	75%

¹ 5% to 25% Reductions in Projected Demands Realized Due to Implementation of Water Shortage Contingency Plan and DMMs

Table 9 Projected Supply and Demand Comparison During Multiple Dry Year Period Ending in 2020 – AFA

	2016	2017	2018	2019	2020
Supply Totals	7,500	7,500	7,500	6,960	6,410
Demand Totals¹	5,140	4,890	4,640	4,390	4,130
Difference (supply minus demand)	2,360	2,610	2,860	2,570	2,280
Difference as % of Supply	32%	35%	38%	37%	36%
Difference as % of Demand	46%	53%	62%	59%	55%

¹ 5% to 25% Reductions in Projected Demands Realized Due to Implementation of Water Shortage Contingency Plan and DMMs

**Projected Multiple Dry-Year Supply and Demand Comparison (2021 – 2025)
With Implementation of Water Shortage Contingency Plan and DMMs**

Table 10 Projected Supply During Multiple Dry Year Period Ending in 2025 – AFA

	2021	2022	2023	2024	2025
Supply	7,500	7,500	7,500	6,960	6,410
% of Projected Normal Year	100%	100%	100%	93%	86%

Table 11 Projected Demand During Multiple Dry Year Period Ending in 2025 – AFA

	2021	2022	2023	2024	2025
Demand ¹	5,250	4,990	4,730	4,460	4,190
% of Projected Normal Year	95%	90%	85%	80%	75%

¹ 5% to 25% Reductions in Projected Demands Realized Due to Implementation of Water Shortage Contingency Plan and DMMs

Table 12 Projected Supply and Demand Comparison During Multiple Dry Year Period Ending in 2025 – AFA

	2021	2022	2023	2024	2025
Supply Totals	7,500	7,500	7,500	6,960	6,410
Demand Totals ¹	5,250	4,990	4,730	4,460	4,190
Difference (supply minus demand)	2,250	2,510	2,770	2,500	2,220
Difference as % of Supply	30%	34%	37%	36%	35%
Difference as % of Demand	43%	50%	57%	56%	53%

¹ 5% to 25% Reductions in Projected Demands Realized Due to Implementation of Water Shortage Contingency Plan and DMMs

**Projected Multiple Dry-Year Supply and Demand Comparison (2026 – 2030)
With Implementation of Water Shortage Contingency Plan and DMMs**

Table 13 Projected Supply During Multiple Dry Year Period Ending in 2030 – AFA

	2026	2027	2028	2029	2030
Supply	7,500	7,500	7,500	6,960	6,410
% of Projected Normal Year	100%	100%	100%	93%	86%

Table 14 Projected Demand During Multiple Dry Year Period Ending in 2030 – AFA

	2026	2027	2028	2029	2030
Demand ¹	5,320	5,040	4,770	4,490	4,220
% of Projected Normal Year	96.2%	91%	85.8%	80.6%	75.4%

¹ 5% to 25% Reductions in Projected Demands Realized Due to Implementation of Water Shortage Contingency Plan and DMMs

Table 15 Projected Supply and Demand Comparison During Multiple Dry Year Period Ending in 2030 – AFA

	2026	2027	2028	2029	2030
Supply Totals	7,500	7,500	7,500	6,960	6,410
Demand Totals ¹	5,320	5,040	4,770	4,490	4,220
Difference (supply minus demand)	2,180	2,460	2,730	2,470	2,190
Difference as % of Supply	29%	33%	36%	36%	34%
Difference as % of Demand	41%	49%	57%	55%	52%

¹ 5% to 25% Reductions in Projected Demands Realized Due to Implementation of Water Shortage Contingency Plan and DMMs

APPENDIX F

DMM 01: Water Survey Programs for Single-Family and Multiple-Family Residential Customers

Sample Water Audit Report

A9-1484

ORANGE VALE WATER COMPANY

WATER AUDIT REPORT ESTABLISHED 12/16/2003

NAME: Gary DATE: 11/18/03
 ADDRESS: 9208 Mott START TIME: 2:00 PM
 ACREAGE: 0.210 Acres COMPLETE: 2:45 PM
 TAP SIZE: 1" COMPANY REP: Chris
 CONSUMPTION HISTORY: 5/03-5/11/03, 7/03-9/2 11/03-120 (in units) Unit = 100 cubic feet = 7.48 Gallons
 REASON FOR AUDIT: LEAK HIGH CONSUMPTION: CUSTOMER REQUEST: COMMERCIAL
 DESCRIPTION OF PROPERTY: RESIDENTIAL: MULTI-FAMILY RESIDENTIAL: INSTITUTIONAL:

CHECK	SOURCE:	IRRIGATION:	INSTITUTIONAL:	COMMENTS:
<input checked="" type="checkbox"/>	METER WITH ALL WATER ON PROPERTY OFF			Meter registers usage.
<input checked="" type="checkbox"/>	WITH LEAK - ISOLATE HOUSE AND USE GAUGE			PSI drops slowly
<input checked="" type="checkbox"/>	WITH LEAK - ISOLATE IRRIGATION			Meter registers usage (Note: irrigation has been shut off prior to audit)
CHECK	INTERIOR - ASK CUSTOMER TO CHECK:			COMMENTS:
<input checked="" type="checkbox"/>	BATHROOM #1 - TOILET WITH DYE TAB			Leaks
<input checked="" type="checkbox"/>	BATHROOM #2 - TOILET WITH DYE TAB			Leaks
<input checked="" type="checkbox"/>	BATHROOM #3 - TOILET WITH DYE TAB			Customer will repair
<input checked="" type="checkbox"/>	ARE BATHROOMS EQUIPPED WITH LOW-FLOW HEADS AND TOILETS?			Yes
<input checked="" type="checkbox"/>	SOLAR WATER HEATER - IF EQUIPPED			No
<input checked="" type="checkbox"/>	RECHECK ALL TOILETS			2 Leaking toilets
CHECK	EXTERIOR - FRONT:			COMMENTS:
<input checked="" type="checkbox"/>	WALK GROUNDS - NOTE WET AREAS, STAINED CONCRETE			NONE
<input checked="" type="checkbox"/>	HOSE BIBS			No leaks
<input checked="" type="checkbox"/>	ANTI-SYPHEN VALVE CONDITION			All off at this time
<input checked="" type="checkbox"/>	IRRIGATION STATION #1			
<input checked="" type="checkbox"/>	IRRIGATION STATION #2			
<input checked="" type="checkbox"/>	IRRIGATION STATION #3			
<input checked="" type="checkbox"/>	IRRIGATION STATION #4			
<input checked="" type="checkbox"/>	IRRIGATION STATION #5			
<input checked="" type="checkbox"/>	IRRIGATION STATION #6			
CHECK	EXTERIOR - BACK:			COMMENTS:
<input checked="" type="checkbox"/>	WALK GROUNDS - NOTE WET AREAS, STAINED CONCRETE			NONE
<input checked="" type="checkbox"/>	HOSE BIBS			No Leaks
<input checked="" type="checkbox"/>	ANTI-SYPHEN VALVE CONDITION			NA
<input checked="" type="checkbox"/>	IRRIGATION STATION #1			
<input checked="" type="checkbox"/>	IRRIGATION STATION #2			
<input checked="" type="checkbox"/>	IRRIGATION STATION #3			
<input checked="" type="checkbox"/>	IRRIGATION STATION #4			
<input checked="" type="checkbox"/>	IRRIGATION STATION #5			
<input checked="" type="checkbox"/>	IRRIGATION STATION #6			
CHECK	PONDS, POOLS, TROUGHS:			COMMENTS:
<input checked="" type="checkbox"/>	DOES PROPERTY HAVE ONE OR MORE OF THE ABOVE?			NO
<input checked="" type="checkbox"/>	METHOD OF FILLING			NO
<input checked="" type="checkbox"/>	OVERFLOW			NO

Orange Vale Water Company

Bus. nm		Bus. type		Misc. retail, warehouses, and offices	
Address 9445,9447,9477 Greenback		Co. rep.		Mark & Chris	
Owner Desiderio Properties		Bld. age		1980	
Route # A3-420,400,350		Acreage		7 Acres	
Cons. history		Average 460 units per 2 mon./6,000 gal. day			
Restroom location	Sink GPM	Toilet GPF	Urinal GPF	Comments	
526 west upstairs/mens	Not low flow	5 (tank)	None		
524 wst upstairs/womens	Not low flow	5 (tank)	None		
518 east upstairs/mens	Not low flow	5 (tank)	None		
518east upstairs/womens	Not low flow	5 (tank)	None		
510 east upstairs/mens	Not low flow	5 (tank)	None		
510east upstairs/womens	Not low flow	5 (tank)	None	Leaking toilet. Running fast.	
506 east downstairs	Not low flow	5 (tank)	None	Taylor	
505 east downstairs	Not low flow	5 (tank)	None	Sandwich shop	
504 east downstairs	Not low flow	3.5	None	Salon	
503 east downstairs	Not low flow	5 (tank)	None	Salon	
502 east downstairs	Not low flow	5 (tank)	None	Pool supply	
501 east downstairs	Not low flow	5 (tank)	None	Pool supply	
103 east bld east side	?	?	None	Locked	
104 east bld east side	?	?	None	Locked	
117 east bld east side	?	?	None	Locked	
118 east bld east side	?	?	None	Locked	
404 north building	Not low flow	5 (tank)	None		
405 north building	Not low flow	5 (tank)	None		
408 north building	?	?	None	Locked	
409 north building	?	?	None	Locked	
218 east bld west side	2.2	5 (tank)	None		
217 east bld west side	Not low flow	5 (tank)	None		
204 east bld west side	Not low flow	5 (tank)	None	Leaking toilet. Running slow.	
203 east bld west side	?	?	None	Locked	

Orange Vale Water Company

Bus. nm	Misc. retail, warehouses, and offices	Bus. type	1980
Address	9445,9447,9477 Greenback	Co. rep.	Mark & Chris
Owner	Desiderio Properties		
Route #	A3-420,400,350	Acres	7 Acres
Bld. age	1980	Survey date	10/25/2004
Cons. history	Average 460 units per 2 mon./6,000 gal. day		

Restroom location	Sink GPM	Toilet GPF	Urinal GPF	Comments
308 west bid east side	Not low flow	5 (tank)	None	
309 west bid east side	Not low flow	5 (tank)	None	
607 west bid west side	Not low flow	5 (tank)	None	
606 west bid west side	Not low flow	5 (tank)	None	
521 west downstairs	Not low flow	5 (tank)	None	
520 west downstairs	Not low flow	5 (tank)	None	
519 west downstairs	Not low flow	5 (tank)	None	

Recommendations: Change out all toilets to 1.6 gallons per flush. Also install 2.2 gallons per minute aerators on the lavatory faucets. At the very least, please repair leaking toilets that are running 24 hours a day. Thank you for the opportunity to survey your property.

APPENDIX G

DMM 02: Residential Plumbing Retrofit

Sample Water Saving Device Form

Orange Vale Water Co. provides FREE Water-Saving Devices to its customers.

- ✓ **Low Flow Showerheads:**
Remove old showerhead
Clean the fitting
Make sure there is a washer in the new showerhead
Attach the new showerhead

- ✓ **Kitchen and Bathroom Aerators:**
Remove old faucet head
Clean the fitting
Use small washer for inside fitting threads
Use both washers for outside fitting threads
Screw on the new aerating faucet head

- ✓ **Toilet Tummy:**
DO NOT use the toilet tummy in an ultra-low flush (1.6gpf) toilet
Fill tummy bag 3/4 full of water
Squeeze the air from the tummy
Remove toilet tank lid
Attach tummy in the water tank so that it is clear of all working parts
Flush toilet and watch to make sure the tummy does not interfere with any working parts
Replace lid on toilet tank

- ✓ **Shower Timer**
- ✓ **Garden Hose Sprayer (Nozzle)**
- ✓ **Mini Moisture Tester**
- ✓ **Rain Sensor for Automatic Sprinkler Systems**

For questions regarding this free program call Orange Vale Water Co. at **916-988-1693**.
If interested in any of the above, please fill out the form below and return with billing statement.

(Detach Here)

Water Saving Device Form

Name _____ Telephone # _____

Pick up at Office? Yes No

Deliver? Yes No

How Many

Showerheads _____ Kitchen Faucets _____ Bath Faucets _____ Toilet Tummy _____

Shower Timer _____ Garden Hose Sprayer _____ Mini Moisture Tester _____ Rain Sensor _____

Date of Delivery _____ Time _____ Staff Person _____

APPENDIX H

DMM 03: System Water Audits, Leak Detection, and Repair

2003 Leak Detection Survey Summary

2004 Leak Detection Survey Summary

Future Pipe Replacement Projects (2005-2014)

2003 Leak Detection Survey Summary

Hughes Supply, Inc.
Utility Services Group
10013 MLK Jr. Way South
Seattle, WA 98178
T 206 725 3441
T 800 621 9292
F 206 725 5932



October 27, 2003

Orange Vale Water Co.
Attn: Sharon Wilcox
PO Box 620800
Orange Vale, CA 95662

Dear Ms. Wilcox:

Hughes, Utility Services Group (Hughes) is pleased to submit the enclosed Final Report on leak detection services recently completed.

A total of approximately **12.51 miles** have been surveyed including all intersecting lines. Approximately **24 hours** were spent on this project. A total of **two (2) leaks** were pinpointed. Additionally, **eight (8) consumer side leaks** were noted, as detailed in this Final Report. The water loss due to leakage was estimated to be, excluding consumer side leaks, approximately **1,440 GPD**. Details of this information are enclosed.

As you review this Final Report, please pay close attention to the Field Technician's remarks and field observations in the Project Observation section of this report. These may assist you in determining the best course of action regarding specific leaks.

We strongly suggest you contact us prior to excavating any leak that we have labeled with "CAUTION" for further explanation.

Page one of our Leak Report section contains a legend of information detailed in the leak diagram. We hope you will also find the Leak Report Summary and graph of leakage helpful in your water conservation efforts.

The leak detection survey is productive since we pinpointed leakage that, when repaired, can reduce your water loss, saving the Orange Vale Water Co. dollars now and in the future. We appreciate your confidence in Hughes. If you have any questions, call us at (800) 621-9292 or (206) 725-3441.

Sincerely,

A handwritten signature in black ink, appearing to read "Rob Meston".

Rob Meston
Manager

Summary of Survey and Pinpointing Report

Client: Orange Vale Water Co., CA

Date: 10/10/2003

Period Covered: 10/08/03 to 10/10/03

General Area Covered: Primarily STL and AC mains in the water distribution system.

TOTAL ANNUAL WATER LOSS

(formula: leak.GPM x min/hour x hours/day x days/year)

525,600.0 GALLONS

SURVEY DATA

Distance Surveyed : 66075.000 feet , 12.510 miles

Time Spent Surveying : 14.50 hours

Points Surveyed		Access Points Requiring further investigation <small>(points that are returned to for pinpointing or elimination)</small>	
Hydrants	51	Leak sounds on: Valves	4
Valves	91	Hydrants	2
Services	103	Services	15
Other	3	Other	2
Total	248	Total	23

PINPOINTING DATA

LEAK TYPE	NUMBER of LEAKS	TIME SPENT PINPOINTING (hours)	TOTAL, GALLONS PER MIN	TOTAL, GALLONS PER DAY	LARGEST, GALLONS PER MIN	LARGEST, GALLONS PER DAY	SMALLEST, GALLONS PER MIN	SMALLEST, GALLONS PER DAY	AVERAGE LEAK SIZE GPM
MAIN LINE	1	1.17	0.5	720.0	0.5	720.0	0.50	720.00	0.50
VALVE									
HYDRANT	1	0.33	0.5	720.0	0.5	720.0	0.50	720.00	0.50
METER									
CURB STOP									
SERVICE LINE									
SERVICE CONN									
OTHER									
UNDEFINED									
TOTALS	2	1.50	1.00	1440	n.a.	n.a.	n.a.	n.a.	0.50

Sites Investigated for Pinpointing

23

Other Time Spent on Project (includes pinpointing false leak sounds)

8.00 hrs.

Project Observations

(Water Distribution Lines)

GENERAL

From October 08 through October 10, 2003 Hughes Utility Services completed a leak detection survey on the water distribution system for the Orange Vale Water Company in Orange Vale, CA. The notes below have been generated by our Field Technician and have been included as part of the Executive Summary.

SPECIFICS

The survey was broken down in two different phases:

1. Survey Phase – sounding of appurtenances and recording leak type noises that were detected.
2. Pinpointing Phase – pinpointing noises that were detected during the Survey Phase.

1. Survey Phase Information

The scope of the project was focused on the steel (STL) and asbestos cement (AC) lines. Good preparation coupled with excellent assistance helped to greatly expedite the survey.

Appurtenances were within 300' in most cases and sound travel was good. We have noted any anomalies in the Project Observations section of the Area Survey Reports.

2. Pinpointing Phase Information

We were able to locate and pinpoint seven (2) leaks. Additionally, we detected 8 possible consumer side leaks.

Note that the line, which is exposed in the creek bed east of 9373 Elm Ave., shows signs of blistering and weeping. A slightly larger leak correlates weekly to the east bank (see Leak Report #2), however, due to the thick brush, we were unable to confirm this location with the portable unit. The location may be affected by a section of PVC main, which joins the steel in this location. This section of pipe appears to be in very poor condition and consideration should be made to replace it.

A section of exposed line on Filbert Ave. (near 6995) also appears to be in poor condition and is weeping at several points with blisters.

Regarding the Consumer Side leaks, additional investigation may be needed. In most cases, noise was noted and no further investigation was done.

CONCLUSION

For the most part, the areas surveyed appear to be in good condition, with the exception of the exposed steel line. As mentioned above, these areas should be considered for replacement.

It also appears that there is a great deal of over watering. Numerous areas were observed with run off, which appeared to be from landscape over watering.

It also appears that there may be a significant problem with possible consumer side leaks. We detected 8 in our limited survey area. We feel that if a service-to-service survey were completed, the number of possible consumer side leaks would be very high. These are extremely important to address since the system is on a flat rate plan.

I would like to thank Chris Niskell and James Perkins for their field assistance, which proved invaluable. We look forward to working with you in the future.

Rick Cabral
Leak Consultant

Hughes Supply, Inc.

Utility Services Group
10013 MLK Jr. Way South
Seattle, WA 98178
T 206 725 3441
T 800 621 9292
F 206 725 5932



LEAK SURVEY CONCLUSION

Our thanks to Sharon Wilcox and all persons involved with this project for their assistance in gathering all the necessary paperwork and personnel to create, with Hughes, a mutually beneficial leak detection project.

With this survey you have demonstrated concern for prudent water utilization and conservation.

Capitalizing on the most advanced leak detection technology available today, Hughes has successfully completed this Leak Detection Survey. The contents of this Final Report provide the Orange Vale Water Co. with a permanent record of the activities performed to complete a Leak Survey along with the results achieved.

An important characteristic of this Leak Report is that the facts contained herein can be used in formulating a database for decision making regarding: the need for possible future meter programs, rehabilitation and pipe line replacement and/or the investigation of new water sources, etc. These types of decisions, regarding your utilization of water, now can be predicated more on facts rather than supposition or conjecture.

Prompt repair of any leaks reported provide an immediate benefit to the Water Department, which includes recovery of most water revenue and water conservation, etc.

Having achieved these results, we recommend that you continue to set up the infrastructure necessary to continue investigating leakage in the water distribution system. Implementation of any on-going leak survey program will ensure that leak losses are kept to a minimum, and the added enhancement of saving costs due to emergency call outs.

Hughes is proud to have served the Orange Vale Water Co. in this way and we wish to thank you for your substantial assistance and cooperation in this project.

If you or your staff has any questions regarding this Final Report, please feel free to call us at (800) 621-9292 or (206) 725-3441.

Best Regards,

A handwritten signature in black ink, appearing to read "Rob Meston", is written over the typed name.

Rob Meston
Manager

2004 Leak Detection Survey Summary

Hughes Supply, Inc.
Utility Services Group
10013 MLK Jr. Way South
Seattle, WA 98176
T 206 725 3441 / 800 621 9292
F 206 725 5932



November 10, 2004

Orange Vale Water Co.
Attn: Sharon Wilcox
PO Box 620800
Orange Vale, CA 95662

Dear Mr. Wilcox:

Hughes Supply, Inc., Utility Services Group (Hughes) is pleased to submit the enclosed Final Report on leak detection services recently completed.

A total of approximately **8.010** miles (estimated by Field Technician) have been surveyed including all intersecting lines. Approximately **15** hours of fieldwork were spent during this project. A total of **one (1)** leak was pinpointed. The water loss due to leakage was estimated to be approximately **36,000 GPD**. Details of this information are enclosed.

Please note that leakage that was detected and pinpointed may be larger or smaller than estimated. Estimates are based on several variables including type and size of pipe, pressure and interpretation of correlation filter results.

As you review this Final Report, please pay close attention to the Field Technician's remarks and field observations in the Project Observation section of this report. These may assist you in determining the best course of action regarding specific leaks.

We strongly suggest you contact us prior to excavating any leak that we have labeled with "CAUTION" for further explanation.

The leak detection survey is productive since we pinpointed leakage that, when repaired, can reduce your water loss, saving the Orange Vale Water Co. dollars now and in the future. We appreciate your confidence in Hughes. If you have any questions, call us at (800) 621-9292 or (206) 725-3441.

Sincerely,

A handwritten signature in black ink, appearing to read "Rob Meston", is written over a white background.

Rob Meston
Manager

Summary of Survey and Pinpointing Report

Client: Orange Vale Water Co.

Date: 11/10/2004

Period Covered: 10/18/2004 to 10/19/2004

General Area Covered: Unit B

TOTAL ANNUAL WATER LOSS
(formula: leak.GPM x min/hour x hours/day x days/year)
13,140,000.0 GALLONS

SURVEY DATA

Distance Surveyed :		42300.000 feet ,	8.010 miles
Time Spent Surveying :		11.75 hours	
Points Surveyed		Access Points Requiring further investigation <small>(points that are returned to for pinpointing or elimination)</small>	
Hydrants	63	Leak sounds on: Valves	1
Valves	85	Hydrants	0
Services	142	Services	1
Other	0	Other	0
Total	290	Total	2

PINPOINTING DATA

LEAK TYPE	NUMBER of LEAKS	TIME SPENT PINPOINTING (hours)	TOTAL, GALLONS PER MIN	TOTAL, GALLONS PER DAY	LARGEST, GALLONS PER MIN	LARGEST, GALLONS PER DAY	SMALLEST, GALLONS PER MIN	SMALLEST, GALLONS PER DAY	AVERAGE LEAK SIZE GPM
MAIN LINE	1	1.00	25.0	36000.0	25.0	36000.0	25.00	36000.00	25.00
VALVE									
HYDRANT									
METER									
CURB STOP									
SERVICE LINE									
SERVICE CONN									
OTHER									
UNDEFINED									
TOTALS	1	1.00	25.00	36000	n.a.	n.a	n.a	n.a	25.000

Sites Investigated for Pinpointing	2
Other Time Spent on Project (includes pinpointing false leak sounds)	2.40 hrs.

PROJECT OBSERVATIONS

(Water Distribution Lines)

GENERAL

On October 19, 2004 Hughes completed a leak detection survey on Unit B of the water distribution system for the Orange Vale Water Company in Orange Vale, CA. The notes below have been generated by our Field Technician and have been included as part of the Executive Summary.

SPECIFICS

The survey was broken down in two different phases:

1. Survey Phase – sounding of appurtenances and recording leak type noises that were detected.
2. Pinpointing Phase – pinpointing noises that were detected during the Survey Phase.

1. Survey Phase Information

The scope of the project was focused on the asbestos cement (AC) lines in Unit B. Good preparation coupled with excellent assistance helped to greatly expedite the survey.

Appurtenances were within 300' in most cases and sound travel was good. We have noted any anomalies in the Project Observations section of the Area Survey Reports.

2. Pinpointing Phase Information

We were able to locate and pinpoint one (1) leak. Further details follow:

Leak Report #1

Poor correlations could not be confirmed with the portable unit since the line runs through a thick berry patch. We recommend pot holing at the suspected leak location. If no leak is found, we suggest you leave the hole open (if possible) and call us to re-schedule a re-check. As mentioned, correlations were poor and on 2 filters, indications were the anomaly was to the east of the direct contact point. Use caution, as this leak location may not be precise. There is also a possibility that the noise may be from a STL to PVC transition believed to exist to the east of the direct contact point.

CONCLUSION

For the most part, the areas surveyed appear to be in good condition, with the exception of the leak listed above. Make note of discrepancies in our estimates, which may have a bearing on water loss calculations.

We would like to thank Chris Niskell for his field assistance, which proved invaluable. We look forward to working with you in the future.

Compile from field notes respectfully submitted by:
Rick Cabral
Field Technician

Hughes Supply, Inc.
Utility Services Group
10013 MLK Jr. Way South
Seattle, WA 98176
T 206 725 3441 / 800 621 9292
F 206 725 5932



LEAK SURVEY CONCLUSION

Our thanks to Sharon Wilcox and all persons involved with this project for their assistance in gathering all the necessary paperwork and personnel to create, with Hughes, a mutually beneficial leak detection project.

With this survey you have demonstrated concern for prudent water utilization and conservation.

Capitalizing on the most advanced leak detection technology available today, Hughes has successfully completed this Leak Detection Survey. The contents of this Final Report provide the Orange Vale Water Co. with a permanent record of the activities performed to complete a Leak Survey along with the results achieved.

An important characteristic of this Leak Report is that the facts contained herein can be used in formulating a database for decision making regarding: the need for possible future meter programs, rehabilitation and pipe line replacement and/or the investigation of new water sources, etc. These types of decisions, regarding your utilization of water, now can be predicated more on facts rather than supposition or conjecture.

Prompt repair of any leaks reported provide an immediate benefit to the Orange Vale Water Co., which includes recovery of most water revenue and water conservation, etc.

Having achieved these results, we recommend that you continue to set up the infrastructure necessary to continue investigating leakage in the water distribution system. Implementation of any on-going leak survey program will ensure that leak losses are kept to a minimum, and the added enhancement of saving costs due to emergency call outs.

Hughes Supply, Inc., Utility Services Group is proud to have served the Orange Vale Water Co. in this way and we wish to thank you for your substantial assistance and cooperation in this project.

If you or your staff has any questions regarding this Final Report, please feel free to call us at (800) 621-9292 or (206) 725-3441.

Best Regards,

A handwritten signature in black ink, appearing to read "Rob Meston", is written over the typed name.

Rob Meston
Manager

Future Pipe Replacement Projects (2005 - 2014)

**ORANGE VALE WATER COMPANY
PIPELINE REPLACEMENT PROJECTS (2005-2014)**

STREET	LOCATION	LINE SIZE (in inches)	FOOTAGE	SERVICES	EST. COST*
Main Ave.		24	1,440		414,720
Main Ave.		24	530		152,640
Elm Ave.	(East of Main Ave.)	10	1,100	16	165,600
Walnut Ave.		8	600	9	76,500
Chestnut Ave.	(Replace 4" AC, South of Elm)	8	690	14	95,640
Filbert	(North of Central)	8	500	6	60,600
Filbert	(South of Elm)	8	1,400	12	159,600
Filbert	(South of Orangevale Ave.)	8	700	10	88,200
Hickory	(N. of Blythe)	8	700	31	132,300
La Siesta Dr.		8	634	10	81,864
Casten Ln.		8	350	3	39,900
Pittman Ln.		8	480	3	52,380
Central Ave.	(Hazel to Beech)	16	1,300	27	306,300
Central Ave.	(Beech to Hickory)	14	1,260	15	243,180
Greenback Ln.	(Main - East)	12	1,100	11	181,500
Greenback Ln.	(Main to Walnut)	12	1,320	11	213,180
Elm Ave.	(Hickory to Beech)	12	1,320	27	246,780
Elm Ave.	(Beech to Hazel)	12	1,020	16	180,480
Elm Ave.	(Filbert to Chestnut)	14	1,320	18	259,560
Elm Ave.	(Chestnut to Walnut)	14	1,320	16	255,360
Elm Ave.	(Walnut to Main)	14	1,140	20	233,520
Fiesta Ln.	(To Central)	8	770	4	82,320
TOTALS			20,994	279	\$ 3,722,124.00

* Estimated Costs: Pipeline Installation Footage Costs @ \$12.00 per inch of pipe diameter; Service Laterals @ \$2,100.00 each.

**FUTURE CONSTRUCTION, PIPELINE REPLACEMENT, AND EQUIPMENT COSTS
(Excluding Storage & Groundwater System Improvements)**

(1) Possible Construction Projects to year 2014		\$ 3,722,124.00
(2) Company Vehicle Replacement/tools/office equipment, Additional employees/etc. @\$80,000/year x 10 years		\$ 800,000.00
Estimate (excluding Storage and Groundwater System Improvements)		\$ 4,522,124.00

APPENDIX I

**DMM 04: Metering With Commodity Rates
for all Connections**

DMM 11: Conservation Pricing

***Orange Vale Water Company Metered Water Rates
(Note: All OVWC Customers are Metered)***

ORANGE VALE WATER COMPANY

Metered Water Rate Charge Bi-Monthly
(CCF = 1 UNIT = 748 GALLONS)

METERED RATES EFFECTIVE JANUARY 2005

"ALL CHARGES ARE BASED ON METER SIZE"

<u>TIER - 1</u>	<u>TIER - 2</u>	<u>TIER - 3</u>	<u>METER SIZE</u>	<u>BI-MONTHLY BASIC RATE</u>	<u>ASSESSMENT</u>
(\$0.20)	(\$0.25)	(\$0.25)			
1-40	41-80	81+	3/4" - 1"	23.00	" SEE BELOW "
1-120	121-240	241+	1 1/2"	46.00	
1-160	161-320	321+	2"	54.00	
1-320	321-640	641+	3"	94.00	
1-640	641-1,280	1,281+	4"	180.00	
1-1,280	1,281-2,560	2,561+	6"	343.00	
1-2,560	2,561-5,120	5,121+	8"	661.00	
1-5,120	5,121-10,240	10,241+	10"	1,330.00	
1-7,240	7,241-14,480	14,481+	12"	1,868.00	

**"ALL CHARGES ARE CALCULATED BY THE NUMBER OF UNITS USED + BASIC RATE + ASSESSMENT"
(ASSESSMENT IS \$7.00 PER PARCEL UP TO (5) ACRES PLUS \$7.00 FOR EACH ADDITIONAL (5) ACRES
AND/OR EACH ADDITIONAL PARCEL)**

APPENDIX J

DMM 07: Public Information Programs

Sample Billing Statement

Water Conservation Program Brochures



ORANGE VALE WATER COMPANY
 9031 Central Avenue
 Post Office Box 620800
 OrangeVale, California 95662-0800
 Office (916) 988-1693

BOARD MEETINGS
District Office
 1st Tuesday of every month / 7:30 PM
 If you desire to address the board,
 please call (24) twenty-four hours
 in advance to be placed on the agenda.

**A Payment Drop Box
 Is Located In Front of The Office
 For Your Convenience**

*****AUTO**5-DIGIT 95662 26626RA18B.A.1.1064.1.2.0.278



Business Hours: Monday through Friday
 Summer Hours: (June 1st through September 30th) 7:00 AM - 4:00 PM
 Winter Hours (October 1st through May 31st) 8:00 AM - 5:00 PM
 Closed Between 12:00 NOON and 1:00 PM Year round

Emergency service and repair twenty-four (24) hours seven (7) days a week (916) 988-1693

ACCOUNT ACTIVITY - METERED RATE		ACCOUNT INFORMATION	
Previous Balance	\$30.80	Account Number:	3726
Payments Received	-\$30.80	Customer Name:	PM BARBOSA/DL LEES/MM MANZO
Water	\$3.00	Service Address:	9131 CENTRAL AV
Assessment	\$7.00	Parcel Number:	213-0260-011
Bi-Monthly Basic Rate	\$23.00	Due Date:	06/01/05
TOTAL AMOUNT DUE	\$33.00	Service Period:	04/01/05 - 05/31/05
		Delinquent After:	06/20/05

METER READ DATA

Meter	Size	Read Date		Reading		Units	Days
		Previous	Current	Previous	Current		
51305427	1"	03/10/05	05/11/05	716	731	15	62

Please refer to reverse side for Tiered Rates and Annual Comparison

SPECIAL MESSAGE

By conserving today we protect our valuable
 water supply for tomorrows needs

KEEP THIS PORTION FOR YOUR RECORDS

TO INSURE PROPER CREDIT DETACH AND RETURN THIS PORTION IN THE ENCLOSED ENVELOPE

Water bills are due and payable upon receipt

and become delinquent after 5:00 PM on the 20th following the due date.

All accounts with an outstanding balance will be assessed a 10% penalty on the 21st.

Please check this box and see reverse for change of address.

ACCOUNT NUMBER: 3726
 CUSTOMER NAME: PM BARBOSA/DL LEES/MM MANZO
 SERVICE ADDRESS: 9131 CENTRAL AV
 PARCEL NUMBER: 213-0260-011

Amount Due: **\$33.00**
 Due Date: 06/01/05
 Delinquent After: 06/20/05
 Service Period: 04/01/05 - 05/31/05

Please see reverse side to pay by Visa or MasterCard

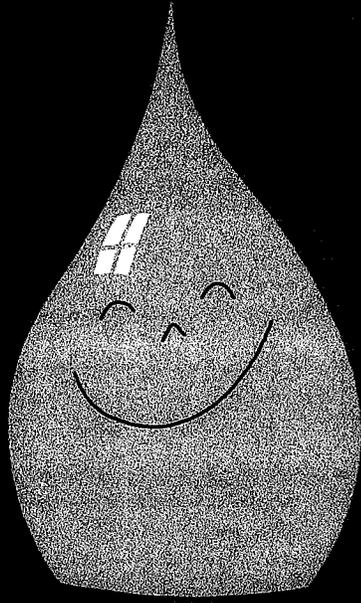


MAKE CHECKS PAYABLE TO:
Orange Vale Water Company
P.O. Box 620800
OrangeVale, CA 95662-0800

A



WATER CONSERVATION



**WISE
WATER USE
OUTDOORS**

Water Facts



Compliments of your
local water agency

Citrus Heights
916.725.6873

Fair Oaks
916.967.5723

Orange Vale
916.988.1693

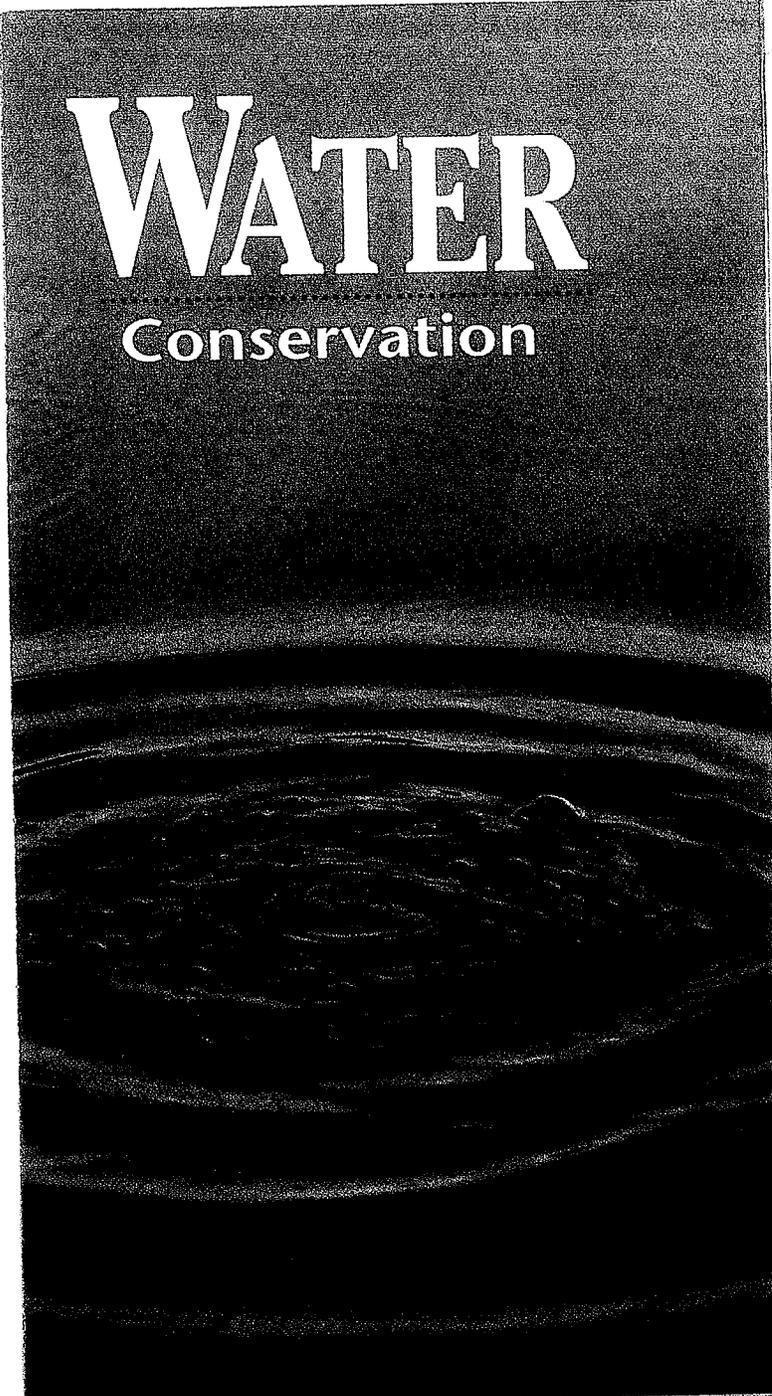
San Juan
916.791.2663



- ◆ Earth's water supply:
 - 97% salt water
 - 2% in ice caps
 - 1% fresh water
- ◆ Your water is from:
 - Folsom Lake
- ◆ Your body is:
 - 65% water
- ◆ Your brain is:
 - 75% water
- ◆ Your body loses:
 - 2 quarts of water a day
- ◆ You should drink:
 - 64 oz of water a day

WATER

Conservation



**Four
Agency
Conservation
Team**

How to Save WATER



	Normal Use	Conservation Use
Shower	Water running 25 gallons	Wet down, soap up, rinse off 4 gallons
Brushing	Tap running 10 gallons	Wet brush, rinse briefly 1/2 gallon
Tub Bath	Full 36 gallons	Minimal water level 10 to 12 gallons
Shaving	Tap running 20 gallons	Fill basin 1 gallon
Dishwashing	Tap running 30 gallons	Wash and rinse in dishpans or sink 5 gallon
Automatic Dishwasher	Full cycle 16 gallons	Short cycle 7 gallons
Washing Hands	Tap running 2 gallons	Fill basin 1 gallon
Toilet Flushing	Depending on tank size 5 to 7 gallons	Using tank displacement bottles 4 to 6 gallons
Washing Machine	Full cycle, top water level 60 gallons	Short cycle, minimal water level 27 gallons
Outdoor Watering	Average hose 10 gallons per minute	Lowest priority Eliminate.

SAVE WATER

Your Neighbors Are Depending On You

Courtesy of
**ORANGE VALE
WATER CO.**



Figures supplied by American Water Works Assn.

Practical Plumbing

H A N D B O O K



California
Urban Water
Conservation
Council

*Includes important
water-saving tips*

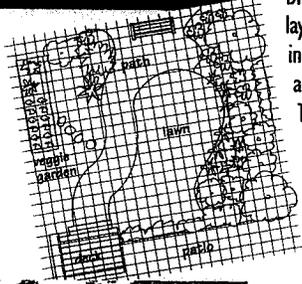


Creating and maintaining your dream garden requires thoughtful planning, harmonious plant selection and wise watering. Wise watering means grouping plants according to their water needs. Too much water deprives plants of oxygen, causes root rot and ultimately kills them!

Group plants with similar water needs to:

- Enhance your garden's health and beauty.
- Save money by protecting your garden investment.
- Save time spent on gardening and watering.

Planning Your Garden and Grouping Your Plants



Dream and design the layout of your garden, including shady and sunny areas, slopes, drainage, etc. Then, sketch your garden.

Be sure the right plants are placed according to their water, sun and soil needs and your special wants.

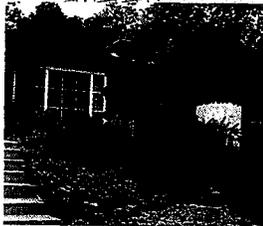
Select the appropriate plants for your garden before you purchase them. Use the garden wish list on this card.

Check the tags at the nursery. Read them to learn how much water the plants will need now and when they mature.

Group plants of similar water needs to create irrigation zones. Then, follow your dream garden plan.

Avoid over-watering. Establish a specific watering schedule for each zone's water needs. Check the moisture in the root zone to get it right.

Call for help. Many water providers offer free landscape irrigation advice. Call your water provider or master gardeners at (916) 875-6913 for more information.



Knowing Plant Water Needs

Your water-wise garden can include any plant you wish. Plants simply need to be grouped according to water needs.

HIGH water-use

Require frequent watering (2-3 times a week during summer months)

- Lawns
- Water-loving plants
- Container plants

MODERATE water-use

Require a little more water than low water-use plants

LOW water-use

Require little, if any, additional watering during summer months

- Many established trees and plants

NO water-use

Includes:

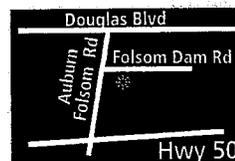
- Hardscapes (patios, decks, walkways)
- Established native plants that can survive on rainfall only



American River Water Education Center

7794 Folsom Dam Road, Folsom
 (916) 989-7275
www.usbr.gov/mp/arwec/

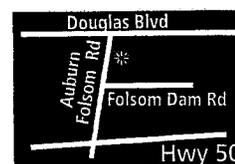
Garden has several areas emphasizing xeriscape landscaping with native and non-native species. Wheelchair access is available to portions of the garden and the Education Center exhibits. The garden is located at the American River Water Education Center which has numerous water use and conservation displays. Open M-F, 2:00-4:30 PM. 10,000 sq. ft.



San Juan Water District WEL Garden

9935 Auburn Folsom Road, Granite Bay
 (916) 791-2663
www.sjwd.org/welgarden.htm

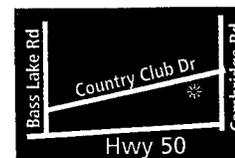
Recently expanded, this WEL Garden features an inviting entry area, varieties of bright flowers, groundcovers, parking lot landscaping, fire-resistant and deer-resistant plants and an oak tree-compatible and preservation garden that contains native plants and grasses that provide food for butterflies and hummingbirds.



Cameron Park Library Xeriscape Garden

2500 Country Club Drive, Cameron Park
 (530) 295-5630
www.usbr.gov/mp/watershare/resources/gardens/details.cfm?GardenID=12

Newly installed garden with small meandering dwarf fescue lawn irrigated with subsurface drip system. 8,000 sq. ft.



El Dorado City Main Library

345 Fair Lane, Placerville
 (530) 295-5630
www.usbr.gov/mp/watershare/resources/gardens/details.cfm?GardenID=50

Recently renovated with new signs, garden shows over 40 plant species. 0.25 acres.



Antelope Gardens

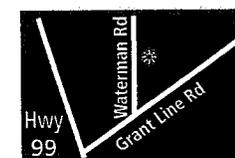
Call for a tour from Sacramento-Suburban Water District
 3701 Marconi Ave. Suite 100, Sacramento
 (916) 972-7171
www.sswd.org/

The Water Efficient Landscape (WEL) garden, located at the district's Antelope reservoir site, is a botanical oasis filled with a variety of drought-tolerant plants, all identified. The two-acre garden was established in 1998 and contains hundreds of species, both native and non-native. The garden offers many ideas for home landscape plantings, plus innovative irrigation systems to reduce water use and wasteful run off. There's also a weather station, designed to collect data and program the irrigation system so it automatically responds to changing weather conditions.

Donna M. Dean Water Conservation Garden

10268 Waterman Road, Sacramento
 (916) 875-4217
www.usbr.gov/mp/watershare/resources/gardens/details.cfm?GardenID=56
www.msa.sacounty.net/waterresources/water/waterconservation.htm

This garden design uses drought-tolerant plants in an attractive landscape setting that employs good water management and conservation measures. Tours are self-guided. Brochures are available on-site which outline the layout and describe the landscaping. 1/4 acre.



*(Maps not to scale,
 the top is North)*

APPENDIX K

DMM 13: Water Waste Prohibitions

Shortage Contingency Plan and Emergency Response Plan

**ORANGE VALE WATER COMPANY
WATER SHORTAGE CONTINGENCY PLAN**

In March of 1991, San Juan Water District adopted uniform “Staged Water Conservation Measures” for their member agencies. These conservation measures will be implemented by Orange Vale Water Company as the needs arise. They are as follows:

- STAGE 1 - NORMAL WATER SUPPLY:** The District’s supply or distribution system is able to meet all the demands of its customers in the immediate future.
- STAGE 2 - WATER ALERT:** There is a probability that the District’s supply or distribution system will not be able to meet all the water demands of its customers.
- STAGE 3 - WATER WARNING:** The District’s supply or distribution system will not be able to meet all the demands of its customers.
- STAGE 4 - WATER CRISIS:** The District’s supply or distribution system is not able to meet all the water demands of its customers under STAGE 3 – WATER WARNING requirements.
- STAGE 5 - WATER EMERGENCY:** The District is experiencing a major failure of the supply, storage, or distribution facility.

These measures are still in effect and in full force since the day of their adoption. Orange Vale Water Company cooperates fully with the San Juan Water District, when alerted to a staged measure. Upon notification of a certain staged alert, Orange Vale Water as a part of the family of agencies will immediately react according to San Juan Water District’s instructions.

**ORANGE VALE WATER COMPANY
WATER SHORTAGE CONTINGENCY PLAN**

STAGE 1 – NORMAL WATER SUPPLY (As requested by San Juan Water District)

1. Water will be used for beneficial uses; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the consumer's property and shall not be allowed to run-off to adjoining property or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Prohibit free-flowing hoses for all uses including vehicle and equipment washing, ponds, evaporation coolers, and livestock water troughs. Attach automatic shut-off devices on any hose or filling apparatus in use.
4. Leaking consumer pipes or faulty sprinklers shall be repaired within five (5) days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculating pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural consideration. Customer requests must be substantiated in writing by a pool consultant and approved by the District.

**ORANGE VALE WATER COMPANY
WATER SHORTAGE CONTINGENCY PLAN**

STAGE 1 – NORMAL WATER SUPPLY

San Juan Water District is fully able to meet the water demands of Orange Vale Water Company and its customers in the immediate future.

TRIGGERING MECHANISM:

No cutback of water supply to Orange Vale Water Company as agreed in contracted amount.

CONSUMPTION LIMITS:

No cutback percentage required. However, there is to be absolutely no run-off or wastage of water at any time.

AGENCY ACTIONS:

During Stage 1, all normal conservation programs would continue as follows:

1. Conservation Patrol and/or responding immediately to reports of water wasting incidents.
2. Maintaining our new Resource Library which includes video tapes, books and literature on conservation and water-wise landscaping. These are made available to our customers upon demand.
3. Providing water conservation kits to customers as requested.
4. Providing on-site evaluation and inspection of irrigation equipment, sprinkler timers and current watering schedule, as time permits.

REQUESTED CONSUMER ACTION:

Orange Vale Water Company will implement the basic conservation measures set forth in Stage 1 of the five-stage conservation program as requested by San Juan Water District.

PENALTIES:

Orange Vale Water Company will immediately go to the offender. Violation notice is given with an explanation of actions for further violations. A letter or telephone call, if problem remains persistent. Disconnection of water service with reconnection fees due prior to reinstatement of service.

**ORANGE VALE WATER COMPANY
WATER SHORTAGE CONTINGENCY PLAN**

STAGE 2 – WATER ALERT (As requested by San Juan Water District)

1. Water will be used for beneficial uses; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the consumer's property and shall not be allowed to run-off to adjoining property or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Prohibit free-flowing hoses for all uses including vehicle and equipment washing, ponds, evaporation coolers, and livestock water troughs. Attach automatic shut-off devices on any hose or filling apparatus in use.
4. Leaking consumer pipes or faulty sprinklers shall be repaired within five (5) days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculating pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural consideration. Customer requests must be substantiated in writing by a pool consultant and approved by the District.
6. Landscape and pasture irrigation shall be limited to a maximum of THREE DAYS PER WEEK when necessary based on the following ODD_EVEN schedule:
 - A. Customers with street addresses that end with ODD number may irrigate only on TUESDAYS, THURSDAYS, and SATURDAYS.
 - B. Customers with street addresses that end with EVEN number may irrigate only on WEDNESDAYS, FRIDAYS, and SUNDAYS.
 - C. NO IRRIGATION IS PERMITTED ON MONDAYS.
7. Automatic sprinkler system timers shall be set to operate off during peak hours between 12:01 A.M. and 6:00 A.M.
8. Prohibit washing of streets, parking lots, driveways, sidewalks, or buildings except as necessary for health, sanitary, or fire protection purposes.
9. Restaurants shall serve water only upon specific request.

**ORANGE VALE WATER COMPANY
WATER SHORTAGE CONTINGENCY PLAN**

STAGE 2 – WATER ALERT

There is a probability that San Juan Water District will not be able to meet all the water demands of Orange Vale Water Company and others.

TRIGGERING MECHANISM:

A cutback in water supply by 5-10%, and the inability of San Juan Water District to obtain additional temporary water contracts.

CONSUMPTION LIMITS:

The customers of Orange Vale Water Company service area would be required to reduce their consumption by 5-10% for the duration of the water alert.

AGENCY ACTIONS:

The continuance of the basic conservation program elements as stated in Stage 1, along with the following:

1. Prepare and distribute educational information, bill inserts, etc. Explain other stages and forecast future actions. Request voluntary water conservation.
2. Cooperate with San Juan Water District in a program of media outreach, as well as issuing news releases to the media as requested.

REQUESTED CONSUMER ACTION:

Orange Vale Water Company will be encouraged to implement Stage 2 of the Water Conservation Measures in order to achieve the desired reduction in consumption to meet the cutback in water supply.

PENALTIES:

Orange Vale Water Company will continue to issue violation to offenders as the need arises. We have found in the past that visiting the property in question one time is usually all that is needed to correct the situation. In extreme cases, the threat of installation of a meter alleviates the problem entirely.

**ORANGE VALE WATER COMPANY
WATER SHORTAGE CONTINGENCY PLAN**

STAGE 3 – WATER WARNING (As requested by San Juan Water District)

1. Water will be used for beneficial uses; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the consumer's property and shall not be allowed to run-off to adjoining property or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Prohibit free-flowing hoses for all uses including vehicle and equipment washing, ponds, evaporation coolers, and livestock water troughs. Attach automatic shut-off devices on any hose or filling apparatus in use.
4. Leaking consumer pipes or faulty sprinklers shall be repaired within five (5) days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculating pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural consideration. Customer requests must be substantiated in writing by a pool consultant and approved by the District.
6. Landscape and pasture irrigation shall be limited to a maximum of TWO DAYS PER WEEK when necessary based on the following ODD_EVEN schedule:
 - A. Customers with street addresses that end with ODD number may irrigate only on TUESDAYS and SATURDAYS.
 - B. Customers with street addresses that end with EVEN number may irrigate only on WEDNESDAYS and SUNDAYS.
 - C. NO IRRIGATION IS PERMITTED ON MONDAYS, THURSDAYS, AND FRIDAYS.
7. Automatic sprinkler system timers shall be set to operate off during peak hours between 12:01 A.M. and 6:00 A.M.
8. Prohibit washing of streets, parking lots, driveways, sidewalks, or buildings except as necessary for health, sanitary, or fire protection purposes.
9. Restaurants shall serve water only upon specific request.

**ORANGE VALE WATER COMPANY
WATER SHORTAGE CONTINGENCY PLAN**

STAGE 3 – WATER WARNING

San Juan Water District will not be able to meet all the water demands of its customers and Orange Vale Water Company.

TRIGGERING MECHANISM:

A cutback in water supply by 11-25%, and the inability of San Juan Water District to obtain additional temporary water contracts.

CONSUMPTION LIMITS:

The customers of Orange Vale Water Company service area would be required to reduce their consumption by 11-25% for the duration of the water warning condition.

AGENCY ACTIONS:

The continuance of the basic conservation program elements and agency actions as described in Stage 2, along with the following:

1. Instruct all customers to reduce consumption by 11-25%.
2. Request compliance with Stage 3 of the Water Conservation Measures of San Juan Water District's Five-Stage Water Conservation Measures.
3. Continue to inform customers of the need to comply.

REQUESTED CONSUMER ACTION:

Orange Vale Water Company will be encouraged to implement Stage 3 of the Water Conservation Measures that are in effect and request of consumers in order to achieve the desired reduction in water use.

PENALTIES:

Orange Vale Water Company will continue to issue violation notices, follow up with shut-off notices and possible reconnection fees along with the installation of a meter for repeat offenders.

**ORANGE VALE WATER COMPANY
WATER SHORTAGE CONTINGENCY PLAN**

STAGE 4 – WATER CRISIS (As requested by San Juan Water District)

1. Water will be used for beneficial uses; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the consumer's property shall not be allowed to run-off to adjoining property or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Prohibit free-flowing hoses for all uses including vehicle and equipment washing, ponds, evaporation coolers, and livestock water troughs. Attach automatic shut-off devices on any hose or filling apparatus in use.
4. Leaking consumer pipes or faulty sprinklers shall be repaired within five (5) days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a re-circulating pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural consideration. Customer requests must be substantiated in writing by a pool consultant and approved by the District.
6. Landscape and pasture irrigation shall be limited to a maximum of ONE DAY PER WEEK when necessary based on the following ODD-EVEN schedule:
 - A. Customers with street addresses that end with ODD numbers may irrigate only on SATURDAYS.
 - B. Customers with street addresses that end with EVEN numbers may irrigate only on SUNDAYS.
 - C. NO IRRIGATION IS PERMITTED ON MONDAYS, TUESDAYS, WEDNESDAYS, THURSDAYS, AND FRIDAYS.
7. Automatic sprinkler systems timers shall be set to operate during off-peak hours between 12:01 A.M. and 6:00 A.M.
8. Prohibit washing of streets, parking lots, driveways, sidewalks, or buildings except as necessary for health, sanitary, or fire protection purposes.
9. Restaurants shall serve water only upon specific request.

10. **NO POTABLE WATER FROM THE DISTRICT'S SYSTEM SHALL BE USED TO FILL OR REFILL NEW SWIMMING POOLS, ARTIFICIAL LAKES, PONDS, OR STREAMS UNTIL THE WATER CRISIS HAS BEEN DECLARED OVER.**
11. **Prohibit water use for ornamental ponds or fountains.**
12. **Washing of automobiles or equipment shall be done on the lawn or at a commercial establishment that uses recycled or reclaimed water.**

**ORANGE VALE WATER COMPANY
WATER SHORTAGE CONTINGENCY PLAN**

STAGE 4 – WATER CRISIS

San Juan Water District will not be able to meet all the water demands of its customers and OrangeVale Water Company under Stage 3 Water Warning requirements..

TRIGGERING MECHANISM:

A cutback in water supply by 26-50%, and the inability to obtain additional water contracts by San Juan Water District.

CONSUMPTION LIMITS: Orange Vale Water Company would request its customers to reduce water consumption by 26-50% until the water crisis is declared over.

AGENCY ACTIONS: The continuance of the basic conservation program elements through Stage 3, along with the following:

1. Mandatory compliance to all water conservation measures required under Stage 4 by customers of Orange Vale Water Company.
2. Comply with a rationing program through percentage cutbacks as requested by San Juan Water District.
3. Compliance with a request for pumping groundwater from two emergency wells in Orange Vale Water Company.

REQUESTED CONSUMER ACTION:

Orange Vale Water Company will be requested to comply with the Stage 4 conservation measures to achieve the required cutback. This will be rigidly enforced.

PENALTIES:

Orange Vale Water Company will strictly enforce all conservation measures, violation notices, shut-off of water service plus a reconnection fee prior to restoration of water service.

**ORANGE VALE WATER COMPANY
WATER SHORTAGE CONTINGENCY PLAN**

STAGE 5 – WATER EMERGENCY (As requested by San Juan Water District)

1. Water shall be used for beneficial uses; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the consumer's property and shall not be allowed to run-off to adjoining property or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Prohibit free-flowing hoses for all uses including vehicle and equipment washing, ponds, evaporation coolers, and livestock water troughs. Attach automatic shut-off devices on any hose or filling apparatus in use.
4. Leaking consumer pipes or faulty sprinklers shall be repaired within five (5) days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a re-circulating pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural consideration. Customer requests must be substantiated in writing by a pool consultant and approved by the District.
6. LANDSCAPE AND PASTURE IRRIGATION SHALL NOT BE ALLOWED.
7. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.
8. Prohibit washing of streets, parking lots, driveways, sidewalks, or buildings except as necessary for health, sanitary, or fire protection purposes.
9. Restaurants shall serve water only upon specific request.
10. **NO POTABLE WATER FROM THE DISTRICT'S SYSTEM SHALL BE USED TO FILL OR REFILL NEW SWIMMING POOLS, ARTIFICIAL LAKES, PONDS, AND FOUNTAINS.**
11. Prohibit water use for ornamental ponds or fountains.
12. Washing of automobiles or equipment shall be done on the lawn or at a commercial establishment that uses recycled or reclaimed water.
13. No potable water from the District's system shall be used for construction purposes such as dust control, compaction, or trench jetting.
14. **NEW CONNECTIONS TO THE DISTRICT SYSTEM WILL NOT BE ALLOWED.**

**ORANGE VALE WATER COMPANY
WATER SHORTAGE CONTINGENCY PLAN**

STAGE 5 – WATER EMERGENCY

San Juan Water District is experiencing a major failure of the water supply, storage and/or distribution facility. Not able to furnish Orange Vale Water Company with needed supply.

TRIGGERING MECHANISM:

A cutback in water supply of greater than 50%, and the inability of San Juan Water District to obtain additional water contracts.

CONSUMPTION LIMITS: All customers of the Orange Vale Water Company service area would be required to restrict consumption to 50% (or less) of normal supply for the duration of the water emergency.

AGENCY ACTIONS: The continuance of all conservation measures and agency action elements through Stage 4, along with the following:

1. Strict enforcement of all Stage 5 conservation measures immediately by all customers of the Orange Vale Water Company service area.
2. Participate with San Juan Water District in a media outreach program with regular updates on the state of the emergency.
3. Rigid conservation patrol for compliance with the necessary and required reductions.
4. Continue to pump with emergency wells to augment the water supply.

REQUESTED CONSUMER ACTION:

Customers of the Orange Vale Water Company will be required to strictly comply with the conservation measures in order to achieve the reduction in consumption.

PENALTIES:

Orange Vale Water Company will not permit waste or run-off of any kind. We will require all customers to strictly adhere to all conservation measures to avoid enforcement of previous penalties.

Appendix 4

**CERTIFICATION OF COMPLETION
OF AN EMERGENCY RESPONSE PLAN**



Public Water System ID number: 3410016

System Name: Orange Vale Water Company

City where system is located: OrangeVale

State : California

Printed Name of Person Authorized to Sign

this Certification on Behalf of the System: Sharon L. Wilcox

Title: General Manager

Address : 9031 Central Avenue (PO Box 620800)

City: OrangeVale

State and ZIP Code: California 95662

Phone: (916) 988-1693 **Fax:** (916) 988-0627 **Email:** swilcox@orangevalewater.com

I certify to the Administrator of the U.S. Environmental Protection Agency that this community water system has completed an Emergency Response Plan that complies with Section 1433(b) of the Safe Drinking Water Act as amended by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Public Law 107-188, Title IV— Drinking Water Security and Safety).

I further certify that this document was prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information (Safe Drinking Water Act (42 U.S.C. 300f *et seq.*)).

The emergency response plan that this community water system completed incorporates the results of the vulnerability assessment completed for the system and includes "plans, procedures, and identification of equipment that can be implemented or utilized in the event of a terrorist or other intentional attack" on this community water system. The emergency response plan also includes "actions, procedures, and identification of equipment which can obviate or significantly lessen the impact of terrorist attacks or other intentional actions on the public health and the safety and supply of drinking water provided to communities and individuals."

This CWS has coordinated, to the extent possible, with existing Local Emergency Planning Committees established under the Emergency Planning and Community Right-to-Know Act (42 U.S.C. 11001 *et seq.*) when preparing this emergency response plan.



Signed: _____ Date: 22 June 2004

Primary contact person that EPA can call if there are questions about this Certification:

Name: Sharon L. Wilcox

Address (if different than that of the Authorized Representative): Same as Above

Phone: (916) 988-1693

Email Address: swilcox@orangevalewater.com

Alternate Contact Person:

Name: John D. Wingerter

Address (if different than that of the Authorized Representative): Same as Above

Phone: (916) 988-0102

Email Address: jwingerter@orangevalewater.com

State of California—Health and Human Services Agency
Department of Health Services



ARNOLD SCHWARZENEGGER
 Governor

DIANA M. BONTÁ, R.N., Dr. P.H.
 Director

WATER QUALITY EMERGENCY NOTIFICATION PLAN

Name of Utility: Orange Vale Water Company

Physical Location/Address: 9031 Central Avenue, OrangeVale CA 95662

The following persons have been designated to implement the plan upon notification by the State Department of Health Services that an imminent danger to the health of the water users exists:

Water Utility: Contact Name & Title	Email Address	Day	Telephone		Cell
			Evening		
1. Sharon L. Wilcox, General Manager	<u>swilcox@orangevalewater.com</u>	(916) 988-1693	(916) 863-5337	(916) 257-8587	
2. John D. Wingerter, Superintendent	<u>jwingerter@orangevalewater.com</u>	(916) 988-0102	(916) 987-0247	(916) 257-8588	
3. Mark C. DuBose, Operations Foreman	N/A	(916) 988-0132	(916) 987-3466	(916) 257-8591	

The implementation of the plan will be carried out with the following State and County Health Department personnel:

State & County Health Departments: Contact Name & Title	Telephone	
	Day	Evening
1. Meena Kumar, District Engineer California Department of Health Services	(916) 449-5669	(916) 449-5669
2. Alex Custodio, Engineer California Department of Health Services	(916) 449-5646	(916) 449-5646
3. County Environmental Health Department Local Primacy Agency/Name Unknown	(916) 875-8550	(916) 875-5000

4. If the above personnel cannot be reached, contact:

Office of Emergency Services Warning Center (24 hrs) (800) 852-7550 or (916) 845-8911

NOTIFICATION PLAN

See Attached Plan

Report prepared by: Sharon L. Wilcox
 General Manager,
 Secretary of the Board of Directors

Signature and Title

6/04/2004
 Date

PLAN I (Medium Community)

During regular working hours, members of our staff will contact the local news media at television stations KCRA, KXTV, and KOVR to broadcast the necessary warning. The local radio stations will also be contacted. The television and radio personnel are available at all hours. Staff will also be called in after hours, as well, if needed. As a follow-up measure, we will also contact the Sacramento Bee, a local newspaper that serves both Sacramento and most surrounding Central and Northern California communities. Staff is also available to go door-to-door, if necessary. However, media notification remains the most practical method.

The necessary warnings will be issued in the English, Spanish, and Russian languages to cover all members of our community.

Orange Vale Water Company's telephone answering service is always available 24-hours a day, using the regular company numbers to answer any questions that will come in from consumers. Questions can be anticipated, especially from the OrangeVale, Fair Oaks, Folsom and Citrus Heights area, as these areas are served by different water districts. Maps will be provided to all media agencies in an effort to assist in locating various districts' boundaries. Our answering service also provides the answering service duties for most of the surrounding water districts, as well.

It is anticipated that the time for notification to the television and radio audiences will be very short. A sound truck or handbills is not practical in this area due to the vast expanse of the area. The Orange Vale Water Company service area is comprised of 3,075 + acres and we have nine (9) available employees. Our priority will be one (1) dialysis center, several nursing/assisted-living homes and local schools for immediate staff notification. Notification of these special entities will take approximately 10 minutes of fast-track response by at least 5 staff members. Notifying the news media for all other classes of customers will continue to be the most expeditious method of handling any and all situations.

DHS Emergency Disaster Response Plan

Emergency/Disaster Response Plan for Orange Vale Water Company

To continue minimum service levels and mitigate the public health risks from drinking water contamination that may occur during a disaster or other emergency events and in order to provide reliable water service and minimize public health risks from unsafe drinking water during those events, the Orange Vale Water Company water system proposes the following plan that defines how it will respond to emergencies and/or disasters that are likely to affect its operation:

Disasters/emergencies that are likely to occur in the water system's service area that are addressed are: earthquake, major fire emergencies, water outages due to loss of power, localized flooding, water contamination, and acts of sabotage.

1. **DESIGNATED RESPONSIBLE PERSONNEL:** For designated responsible personnel and chain of command and identified responsibilities, see the attached "Emergency and Disaster Personnel and Responsibilities."
2. **INVENTORY OF RESOURCES:** An inventory of system resources that are used for normal daily water system operations and available for emergencies; includes maps and schematic diagrams of the Orange Vale Water Company water system, lists of emergency equipment, equipment suppliers, and emergency contract agreements that are kept under secure conditions at the offices of Orange Vale Water Company.
3. **EMERGENCY OPERATIONS CENTER:** The office of Orange Vale Water Company will be used by staff and designated as the communication center for our staff only. Emergency contact information for equipment suppliers is attached. The telephone, FAX, and E-mail, if available, will be the primary mode of communication in the event of an emergency.

Agency	Address, City	Phone #	FAX #
Orange Vale Water Company (E-Mail Address) swilcox@orangevalewater.com	9031 Central Avenue OrangeVale CA 95662	(916) 988-1693	(916) 988-0627
Sacramento Metropolitan Fire District	3012 Gold Canal Drive Rancho Cordova CA 95670	911 (916) 942-3300	(916) 942-3400
Sheriff's Department County of Sacramento		911	

4. **OTHER AGENCY COORDINATION:** Coordination procedures with governmental agencies for health and safety protection; technical, legal, and financial assistance, and public notification procedures are continually being developed and updated through regulation and experience and will be added as necessary to this plan. (See attached sheet.)

5. **RESPONSE PROCEDURES:** Personnel will, as quickly as possible, determine the status of other employees, assess damage to water system facilities, provide logistics for emergency repairs, monitor progress of repairs and restoration efforts, communicate with health officials and water users according to the "Emergency Notification Plan" on file with the Department of Health Services (DHS).

6. **RESUME NORMAL OPERATIONS:** The steps that will be taken to resume normal operations and to prepare and submit reports to appropriate agencies will include identifying the nature of the emergency (e.g., earthquake causing water outage/leaks, fire or power outage causing water shortage/outage, sabotage resulting in facility destruction or water contamination).
 - a. **Leaks or service interruption (result of earthquake, etc.)**
 - i. Isolate leak. Turn power or flow off, if necessary, to control leak.
 - ii. Repair or isolate break to allow service to the maximum system population possible. Disinfect as per attached AWWA Standards; increase system disinfectant residual as precaution, until normal service is resumed.
 - iii. Do bacteriological sampling until 3 good consecutive samples are confirmed.
 - iv. Reestablish normal service.
 - b. **Low pressure (result of earthquake, fire, storm)**
 - i. Increase production, if possible, to maximize system output.
 - ii. Increase disinfection residual as precaution to potential contamination. This will be done by San Juan Water District.
 - c. **Power outage**
 - i. Place emergency/standby wells into action to provide minimum water pressure to system.
 - ii. Increase disinfectant residual as precaution to potential contamination. This will be done by San Juan Water District.
 - d. **Contamination**
 - i. Identify location and source of contamination.
 - ii. If contamination is from system source, isolate or treat source.
 - iii. If contamination is an act of sabotage, take appropriate action based on nature of contamination. Immediately contact the County of Sacramento, Sheriff's Department and Department of Health Services. Actions will be accordance with and in consultation with the Office of Drinking Water of Department of Health agency and could include shutting off water until all contaminants are identified.
 - e. **Physical destruction of facility (sabotage)**
 - i. Immediately contact the Sheriff's Department and Department of Health Services for consultation.

All significant water outages (widespread and lasting more than eight hours) or disinfection failure will be reported to the Department of Health Services (DHS) District Office, by telephone or equally rapid means. All emergencies will be documented along with action taken, and kept in the files of the Orange Vale Water Company office. Acts of sabotage will be reported to the Sheriff's Department of the County of Sacramento.

Orange Vale Water Company's Emergency and Disaster Personnel and Responsibilities:

Sharon L. Wilcox	(916) 988-1693 (work)	Manage entire operation of the Company and initiation of emergency operations.
General Manager/Secretary-Board of Directors	(916) 863-5337 (home)	
John D. Wingerter	(916) 988-0102	In charge of the entire water system.
Superintendent of Field Operations	(916) 987-0247	
Mark C. DuBose	(916) 988-0132	Responsible for organizing field crew to perform the necessary repairs.
Operations Foreman	(916) 987-3466	
Christopher L. Nickell	(916) 988-0132	Make repairs to the water system as directed.
Distribution System Operator	(916) 988-7247	
Douglas W. Grey	(916) 988-0132	Make repairs to the water system as directed.
Distribution System Operator	(916) 988-5670	
James D. Perkins	(916) 988-0132	Make repairs to the water system as directed.
Distribution System Operator	(916) 988-0001	
Office Staff (3 persons)	(916) 988-1693	Emergency assistance and support
Board of Directors (5 persons)	(916) 988-1693	Emergency assistance and support

Additional Mutual Assistance or Emergency Resources

Agency/Department	Telephone Number (day) Telephone Number (after hours)
San Juan Water District Citrus Heights Water District Fair Oaks Water District	(916) 791-0115 (24/7) (916) 725-6873 (24/7) (916) 967-5723 (24/7)
Sacramento Metropolitan Fire District	(916) 942-3300 or 911
County of Sacramento Sheriff's Department	(916) 874-5111 or 911
County of Sacramento Office of Emergency Services	(916) 845-8510
FBI Office Sacramento Division (terrorism or sabotage) (also will notify local law enforcement.)	(916) 481-9110
DHS District Office – Office of Drinking Water	(916) 449-5600
County of Sacramento Environmental Health	(916) 875-5000

Water system contact information:

Name: Sharon L. Wilcox

Address: 9031 Central Avenue (PO Box 620800)

City, State, ZIP code: OrangeVale CA 95662

Phone: (916) 988-1693 FAX: (916) 988-0627

E-Mail Address: swilcox@orangevalewater.com

Emergency Contact Numbers and Operational Practices

A. List of equipment on hand for emergency repairs:

1. Miscellaneous pipes and fittings, 2", 4", 6", & 8" 10" 12" 16" 24" 28", approximately 150 count of each smaller size and fewer of larger size.
2. Repair Equipment and 6 vehicles fully equipped
3. Jackhammer, soil tamper, generator, water pumps, etc.

B. List of sources of needed equipment, not on hand:

1. Backhoe
 - a. Tim Hodge
 - b. Robert Vranesh
2. **Greenback Equipment Rentals**

C. List of distributors or suppliers of replacement parts for the system:

1. Groeniger & Company
Camellia Valley Supply

D. List of emergency contact numbers:

	Name	Phone (day)	Phone (after hours)
DHS District Office	Meena Kumar	(916) 449-5669	(916) 449-5600
County Environmental Health Agency	Name Unknown	(916) 875-8440	(916) 875-5000
Electrician	Russell Castilone Lake-View Electric	(916) 988-0271	(916) 988-2954
Laboratory	Richard Blodgett WET Laboratories	(530) 677-5776	(530) 677-5776
Electric & Pump (repair service)	ABS Pumps	(916) 925-8508	(916) 925-8508
Chemical Disinfectant Supplier	N/A		
Other Water Agency (equipment support)	San Juan Water District	(916) 791-0115	(916) 791-0115
Fire Department	Sacramento Metropolitan Fire District	(916) 942-3300	911
Law Enforcement	Sheriff's Department	(916) 874-5111	911
County Office of Emergency Services	Name Unknown	(916) 845-8510	(916) 874-4670

Table 6.1 Orange Vale Water Company Water System Chain of Command

Name and title	Responsibilities during an emergency	Contact numbers
<p>Sharon L. Wilcox Water System General Manager</p>	<ul style="list-style-type: none"> • Overall management and decision making for the Company. • Lead for managing the emergency and contacting the regulatory agencies. • Lead for contacting the public and news media. • Lead for all communications to external parties. 	<p>(916) 988-1693 Office (916) 257-8587 Cell (916) 952-6532 Mobile (916) 863-5337 Home (916) 988-0627 Fax</p>
<p>John D. Wingerter Superintendent of Field Operations</p>	<ul style="list-style-type: none"> • In charge of operating the water system. • Performs inspections, maintenance, sampling of the system and relaying critical information to the General Manager • Assess facilities, and provides recommendations to the General Manager. 	<p>(916) 988-0102 Office (916) 257-8588 Cell (916) 987-0247 Home</p>
<p>Mark C. DuBose Operations Foreman</p>	<ul style="list-style-type: none"> • In charge of planning field crew activities. • Performs inspections, maintenance, sampling of the system and relaying critical information to the Superintendent and General Manager. • Assess water system facilities and provide recommendations to the Superintendent and General Manager. 	<p>(916) 988-1032 Office (916) 257-8591 Cell (916) 987-3466 Home</p>
<p>Christopher L. Nickell Distribution System Operator and Meter Reader</p>	<ul style="list-style-type: none"> • Perform necessary repairs to the water system. • Provide customer service and be available to answer questions. • Conduct site inspections. • Deliver water quality notices or door hangers. 	<p>(916) 988-0132 Office (916) 257-8590 Cell (916) 988-7247 Home</p>
<p>Douglas W. Gray and James D. Perkins Distribution System Operators</p>	<ul style="list-style-type: none"> • Perform necessary repairs to the water system • Receives customer phone calls and maintains a log of complaints and calls. • Conduct site inspections • Deliver 	<p>(916) (988-0132 Office</p>
<p>Bula Sutherland Sally Ragusa Rachel Hernandez</p>	<ul style="list-style-type: none"> • Receive customer telephone calls and maintain a log of complaints and calls. • Assist with calling priority customers. • Relay messages to emergency staff. • Assist the General Manager and field personnel with communications strategy. 	<p>(916) 988-1693 Office (916) 257-8629 Cell (916) 988-0627 Fax</p>

Table 6.2 – Orange Vale Water Company’s Water System Contact List

Organization	Name	Contact numbers
Police, Fire, HAZMAT	Sacramento Sheriff’s Department California Highway Patrol Sacramento Metropolitan Fire District County of Sacramento – Environmental Management	Call – 911 (24/7) (916) 657-7261 Call – 911 (24/7) (916) 875-8550
CDHS District Engineer	Meena Kumar, District Engineer California Department of Health Services Sacramento District Office	(916) 449-5669 - Office (916) 449-5600 (24/7)
FBI Regional Office	California Federal Bureau of Investigation Sacramento Division	(916) 481-9110 (24/7)
County Public Health Officer	County of Sacramento	(916) 875-5881 (916) 875-5000 (24/7)
County Director of Environmental Health Department	County of Sacramento Environmental Health	(916) 875-8440 (916) 875-5000 (24/7)
County OES	County of Sacramento – Office of Emergency Services Disaster Assistance Division Telecommunications Section County of Sacramento Emergency Operations Office	(916) 845-8510 (916) 845-8100 (916) 845-8600 (916) 874-4670 (24/7)
CA OES (State OES)	Warning Center (Ask for CDHS Duty Officer-Drinking Water Program)	(800) 852-7550 (24/7) (916) 845-8911 (24/7)
Regional WQ Control Board	Water Quality Control Board Central Valley Region	(916) 255-3000 (24/7)
CA Dept. of Fish and Game	State of California Department of Fish & Game – Region 2	(916) 358-2899 (916) 445-0045 (24/7)
CA PUC (if privately owned water system)	California Public Utilities Commission	(800) 848-5580
WQ Laboratory	Water Environmental Testing Laboratory (WET Laboratories)	(530) 677-5776

APPENDIX L

DMM 14: Residential Ultra Low-Flow Toilet (ULFT) Replacement Programs

Sample Notice of Rebate

List of ULFT Customers

Up-To-\$75 Rebate

**If you are buying a 1.6 or less
gallon per flush (gpf) toilet to
replace a 3.5 or more gpf toilet
you may be eligible for an
up-to-\$75 rebate.**

**Rebates are limited and they will be issued on a
first come - first serve basis from July 1, 1999
until all rebate funds have been depleted.**

**Call today for information on the
Ultra-Low Flush Toilet Rebate Program.
916-988-1693**

**Rebates are available to customers of the
Orange Vale Water Company**



Utility Billing UB QBE Report

User: swilcox

Printed: 08/26/2005 - 8:46 AM

Report Name: ULFT Rebate

Sort Used: ULFT

SPRINGBROOK SOFTWARE

ULFT	Tax Lot	Service Address	Acreage	Cust No	Last Name	First Name
1.00	213-0440-003	9424 VALLEJO DR OR	0.230	000018	ALEXANDER	RW/HL
1.00	213-0292-008	7327 WALNUT AV ORA	0.280	005590	COWELL	JR JR/F
1.00	223-0154-002	6010 HAZEL AV ORAN	0.230	000109	BALDWIN	CL
1.00	213-0373-059	6701 BEECH AV ORAN	0.370	000132	BARTON	P/K
1.00	213-0322-007	8864 TAHITIC T ORA	0.250	000146	BEATY	DL/DM
1.00	213-0120-031	7029 CHESTNUT AV O	0.390	000261	BROCKEL/MS CREAMY	RC
1.00	213-0470-018	6802 BEECH AV ORAN	0.613	000352	CARI	MJ/LW
1.00	261-0232-004	8568 SONIA AV ORAN	0.270	000677	REID REVOCABLE FAMIL	KD/MK
1.00	213-0430-030	6704 WALNUT AV ORA	0.390	000473	CORDER	CR/LM
1.00	213-0373-018	8774 KURTS CT ORAN	0.230	000497	COUNTS 1999 REVOCABL	TL/TL
1.00	261-0150-012	8501 CUMULUS WY OR	0.170	000551	DARGHTY FAMILY REVOC	RH/D
1.00	257-0230-014	8665 ELM AV ORANGE	0.240	005692	SPRINGS	GV
1.00	213-0272-010	6624 CHASTAIN ST O	0.270	000639	DREYER	A
1.00	213-0342-001	7116 BOBBY ST ORAN	0.240	007326	LAMM	BD/JE
1.00	213-0170-002	6657 FILBERT AV OR	0.890	006063	KERR	TE/BM
1.00	223-0133-003	8813 FORTUNA WY OR	0.240	000735	FERREL	DA
1.00	259-0250-031	6823 HICKORY AV OR	0.480	005568	DOUGLAS/MA SIBLEY	EF
1.00	223-0190-017	9436/3 GREENBACK LN	1.264	000887	GOLAB	IC
1.00	261-0100-031	8402 MILKY WY ORAN	0.210	000903	GOODREAU LIVING TRUS	EM HANSEL FAMILY 199
1.00	213-0530-001	7001 HIGH SIERRA CT	1.010	000984	HEDDEN	LA/LS
1.00	223-0382-011	9073 TERRAMORE DR	0.200	001036	HERRMAN	S/EA
1.00	223-0152-006	8917 FORTUNA WY OR	0.240	001054	CONDON	BL/JE
1.00	223-0172-006	9224 CHESTWALL ST	0.340	007205	HEARING	J
1.00	223-0530-038	9314 ROCK CANYON WY	0.240	007521	ANDERSON/T BOSWELL	RM JR
1.00	213-0342-008	7101 HAZEL AV ORAN	0.240	005565	MC KINZIE/SA POCOCK	AA/TP
1.00	213-0143-022	6820 DUGGAN WY ORA	0.547	005781	JOHNSON	BP/SC
1.00	223-0640-010	9020 CLARISSA DR O	0.200	001191	R & RM JUNKERT REV F	EH/MB
1.00	223-0650-020	6240 GREEN TOP WY (0.260	006234	KIPLINGER	AE JR/DA
1.00	259-0261-007	8536 STRONG AV ORA	0.296	001344	MANN	THOMAS/KS DEPEW-THOMAR
1.00	223-0420-027	6205 GREEN EYES WY	0.160	001555	THOMAS/KS DEPEW-THOMAR	K
1.00	223-0530-023	6068 GARDEN TOWNE W	0.210	007254	FARRELL	VC
1.00	223-0300-037	6335 PECAN AV ORAN	0.270	006944	MENO	JK
1.00	223-0410-024	5816 RICH HILL DR	0.190	001687	FARRIS	AR
1.00	213-0260-044	6624 ROSE ACRES RD	0.240	007480	PERKINS	KK/D
1.00	213-0031-006	7340 FILBERT AV OR	0.240	006976	NARTKER	WD/ER
1.00	259-0262-004	6737 ALMOND AV ORA	0.230	007201	PARKER	AR
1.00	213-0112-005	9252 ELM AV ORANGE	0.870	001922	PERKIN	
1.00	213-0322-015	6942 KON TIKI DR O	0.360	001954		

ULFT	Tax Lot	Service Address	Acresage	Cust No	Last Name	First Name
1.00	213-0120-009	9129 ELM AV ORANGE	0.180	001955	PERKINS FAMILY TRUST	D/E
1.00	259-0262-017	6720 CARRWOOD ST O	0.323	001986	PIMLEY	AG
1.00	213-0840-002	8729 TAAJANAR CT O	1.010	002125	ROSS	AT/KL
1.00	223-0220-051	8868 GLORI DAWN DR	0.230	002131	ROWE	G/D
1.00	261-0150-013	8505 CUMULUS WY OR	0.130	002134	ROWETT	GG/C
1.00	213-0111-019	6841 CHESTNUT AV O	0.345	002329	SOLIS	RR/CD
1.00	213-0322-011	8842 ELM AV ORANGE	0.268	002447	TAUFERNER REVOCABLE H	
1.00	213-0480-007	6692 BEECH AV ORAN	1.940	002492	TINKER	JR/JEM
1.00	261-0150-035	8552 STRATUS DR OR	0.130	002567	WALKER	P/PK
1.00	213-0202-003	9440 ELM AV ORANGE	0.360	002644	WILDER FAMILY TRUST	JD/CL
1.00	223-0520-018	9200 ROCK CANYON WY	0.275	002674	WILSON	GR/MV
1.00	223-0074-002	8870 CEREZO DR ORA	0.263	002696	WINSTEAD	LB/JJ
1.00	223-0392-025	8976 OAKMORE WY OR	0.130	007186	CHUNG	JY/TH
1.00	223-0600-026	9388 RIVER OAKS LN	0.030	006353	ALEXANDER	AM
1.00	261-0470-040	8485 WHISPERING OAK	0.170	006528	YOST FAMILY TRUST	JC/GM
1.00	223-0012-073	8935 COAN LN ORANG	0.320	002906	HOLTZMAN	JR
1.00	213-0202-022	9428 ELM AV ORANGE	0.390	002951	WELSCH-WEHRMANN/SA WD	
1.00	223-0190-005	9426 GREENBACK LN	0.572	002967	GARNETT	J
1.00	223-0131-019	8836 FORTUNA WY OR	0.240	003078	HUTCHINSON	G/C
1.00	213-0480-022	8875 CENTRAL AV OR	0.250	003085	TREZONA	SW
1.00	213-0490-004	6728 BEECH AV ORAN	0.220	003282	NIELSEN	T/AC
1.00	213-0373-027	6721 CALISTA ST OR	0.230	003491	LONG	JW/P
1.00	213-0391-025	9350 VILLAGE GREEN	0.260	003525	DIERKS	C/B
1.00	223-0071-019	6326 BEECH AV ORAN	0.940	003547	SESSIONS	JL/BE
1.00	213-0440-036	9450 VALLEJO DR OR	0.696	003798	DAWID	KM/JL
1.00	213-0091-017	7007 MAIN AV ORANG	0.500	006828	FRENCH	M/L
1.00	261-0140-004	6501 ALMOND AV ORA	0.790	003933	PATERSON	DW/DE
1.00	259-0250-034	8527 STRONG AV ORA	0.540	004063	MURRAY	ME/MN
1.00	261-0270-017	9287/89 LOMA LN OR	1.149	006441	JENSEN	D
1.00	223-0101-015	9362 RIVER OAKS LN	0.030	007197	STRAW/MJ GARCIA	MP
1.00	223-0600-043	6221 PECAN AV ORAN	0.370	006455	MARTIN/A MOORE	D
1.00	223-0082-026	8461 CENTRAL AV OR	0.290	004628	CAPPS	JC
1.00	259-0244-013	5916 PECAN AV ORAN	0.160	004777	JACKSON REVOCABLE TR NK	
1.00	223-0381-028	9324 OAK AV ORANGE	0.270	004798	BAYER	FH
1.00	213-0230-001	6303 HICKORY AV OR	0.280	007260	MORING	P/A
1.00	261-0180-010	6316/1 HAZEL AV OR	0.830	000024	ALLEN	HW/DE
2.00	223-0300-026	6212 GREEN TOP WY	0.258	000110	BALDWIN 1996 FAMILY	
2.00	223-0420-013	9084 CENTRAL AV OR	0.976	000140	BEACHAM	WF/SK
2.00	223-0021-011	6537 KENNETH AV OR	0.150	000266	BROWN	LG/DL
2.00	261-0580-002	6216 PECAN AV ORAN	0.224	000886	GOINS	BS/CL
2.00	223-0420-038	6216 MAIN AV ORANG	0.788	007468	LARSEN	K
2.00	223-0122-037	6518 CHESTNUT AV O	0.310	001135	HUGHES FAMILY TRUST MG	
2.00	223-0041-029	9065 TERRAMORE DR	0.160	001392	KUYKENDALL	WA/SR
2.00	223-0382-013	6840 FILBERT AV OR	2.860	001486	LOPEZ	DB/JA
2.00	213-0111-038	6516 PECAN AV ORAN	0.496	001644	MC GEE	GA/DM
2.00	223-0021-023	8468 LONON CT ORAN	0.130	001773	MOSS	SD/EA
2.00	261-0580-025	6900 ALMOND AV ORA	19.220	001984	PILLA	AM/SM
2.00	259-0250-012	9054 TERRAMORE DR	0.254	002042	HERITAGE OAK MHP LLC	
2.00	223-0383-004	7010 BEECH AV ORAN	1.110	002098	RITTER	JJ
2.00	213-0014-012			002212	SCHOENTHAL	KG/CL

ULFT	Tax Lot	Service Address	Acreage	Cust No	Last Name	First Name
2.00	213-0120-018	7025 CHESTNUT AV O	0.569	002367	STEPHENS	WJ/JB
2.00	213-0221-024	9351 MANETTE WY OR	0.240	007458	GUTIERREZ	B/GC
2.00	223-0251-010	5811 WALNUT AV ORA	5.000	002751	CHRIST THE KING LUTH	
2.00	213-0170-036	9041 CENTRAL AV OR	3.325	002758	FIRST UNITED METHODIST	
2.00	257-0350-015	7036 KENNETH AV OR	0.310	002857	ASBELL 1996 REV TRST	TR/R
2.00	223-0211-010	8870 KONA WY ORANG	0.240	003149	CURRIER/V PAMPLIN-CU RE	
2.00	261-0260-005	6055 ROLOFF WY ORA	0.080	005783	MONTGOMERY TRUST AGRIL	
2.00	261-0260-006	6057 ROLOFF WY ORA	0.080	005784	MONTGOMERY TRUST AGRIL	JH/KA
2.00	213-0161-020	6915 PECAN AV ORAN	5.000	003553	KELLY	JD/PP
2.00	213-0170-025	6658 PECAN AV ORAN	1.730	003826	NEIL	
2.00	261-0260-007	6059/6 ROLOFF WY O	0.196	006846	CONFORTE REVOCABLE LEA	
2.00	223-0220-024	8892 ANONA WY ORAN	0.230	007488	COX	CC/L
2.00	223-0011-052	8852 CENTRAL AV OR	0.300	006910	STOAKLEY	PO/SA
3.00	257-0230-002	7056 ALMOND AV ORA	0.567	000884	GODDARD	RE/JR
3.00	213-0560-013	8772 KILLDEE CT OR	1.190	001023	HAWKES	PN/TA
3.00	223-0220-020	8868 ANONA WY ORAN	0.330	002693	WINGO	JP/PA
3.00	213-0260-034	9161 CENTRAL AV OR	0.920	004015	ROBERTS REVOCABLE TR DL SR/DC	