



Appendices

2015 Urban Water Management Plan



Appendix A. DWR UWMP Check List

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Checklist Arranged by Subject

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location <i>(Optional Column for Agency Use)</i>
10620(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.	Plan Preparation	Section 2.1	Chap 10
10620(d)(2)	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.	Plan Preparation	Section 2.5.2	Page 2-1
10642	Provide supporting documentation that the water supplier has encouraged 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.	Plan Preparation	Section 2.5.2	Page 2-2, Page 10-1, Appendix H
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	Page 3-1
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	Page 3-3
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	Page 3-5
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	Page 3-5
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	Page 3-5
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	Page 4-1
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Section 4.3	Page 4-3
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.5	Page 4-5
10608.20(b)	Retail suppliers shall adopt a 2020 water use target using one of four methods.	Baselines and Targets	Section 5.7 and App E	Page 5-5

Appendix A **UWMP Checklist**

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location (Optional Column for Agency Use)
10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Chapter 5 and App E	Page 5-2
10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.7.2	Page 5-6
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	Page 5-6
1608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.8.2	Page 5-6
10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	Section 5.1	n/a
10608.40	Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form.	Baselines and Targets	Section 5.8 and App E	Page 5-6
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	Page 6-11
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	Page 6-3
10631(b)(1)	Indicate whether a groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2.2	n/a
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1	n/a
10631(b)(2)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2.2	n/a

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CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location (Optional Column for Agency Use)
10631(b)(2)	For unadjudicated basins, indicate whether or not the department has identified the basin as overdrafted, or projected to become overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.	System Supplies	Section 6.2.3	n/a
10631(b)(3)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 6.2.4	n/a
10631(b)(4)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Sections 6.2 and 6.9	n/a
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6.7	Page 6-9
10631(g)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years.	System Supplies	Section 6.8	Page 6-10
10631(i)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	Page 6-8
10631(j)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any - with water use projections from that source.	System Supplies	Section 2.5.1	Page 2-2
10631(j)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	Section 2.5.1	n/a
10633	For wastewater and recycled water, coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.1	Page 6-3
10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	System Supplies (Recycled Water)	Section 6.5.2	Page 6-4
10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.5.2.2	Page 6-6

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CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location (Optional Column for Agency Use)
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.3 and 6.5.4	Page 6-6
10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.4	Page 6-6
10633(e)	Describe 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.	System Supplies (Recycled Water)	Section 6.5.4	Page 6-7
10633(f)	Describe the actions 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.	System Supplies (Recycled Water)	Section 6.5.5	Page 6-8
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5	Page 6-8
10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.4	Page 7-8
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1	Page 7-1
10631(c)(1)	Provide data for an average water year, a single dry water year, and multiple dry water years	Water Supply Reliability Assessment	Section 7.2	Page 7-4
10631(c)(2)	For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that source.	Water Supply Reliability Assessment	Section 7.1	Page 7-1
10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.1	Page 7-1
10635(a)	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.3	Page 7-4
10632(a) and 10632(a)(1)	Provide an urban water shortage contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage.	Water Shortage Contingency Planning	Section 8.1	Page 8-1

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CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location (Optional Column for Agency Use)
10632(a)(2)	Provide 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.	Water Shortage Contingency Planning	Section 8.9	Page 8-11
10632(a)(3)	Identify actions to be undertaken by the urban water supplier in case of a catastrophic interruption of water supplies.	Water Shortage Contingency Planning	Section 8.8	Page 8-10
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	Page 8-2
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	Page 8-3
10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	Page 8-6
10632(a)(7)	Provide an analysis of the impacts of each of the actions and conditions in the water shortage contingency analysis on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts.	Water Shortage Contingency Planning	Section 8.6	Page 8-8
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	Page 8-9, Appendix F
10632(a)(9)	Indicate a mechanism for determining actual reductions in water use pursuant to the water shortage contingency analysis.	Water Shortage Contingency Planning	Section 8.5	Page 8-7
10631(f)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Sections 9.2 and 9.3	Page 9-3
10631(f)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	Sections 9.1 and 9.3	Page 9-12
10631(j)	CUWCC members may submit their 2013-2014 CUWCC BMP annual reports in lieu of, or in addition to, describing the DMM implementation in their UWMPs. This option is only allowable if the supplier has been found to be in full compliance with the CUWCC MOU.	Demand Management Measures	Section 9.5	Page 9-1

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CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location (Optional Column for Agency Use)
10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Section 10.3	Page 10-2
10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.	Plan Adoption, Submittal, and Implementation	Section 10.2.1	Page 10-1, Appendix H
10621(d)	Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.	Plan Adoption, Submittal, and Implementation	Sections 10.3.1 and 10.4	Page 10-2
10635(b)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 60 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	Page 10-2
10642	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan.	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5	Page 10-2, Appendix H
10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Sections 10.2.1	Page 10-2, Appendix H
10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	Page 10-2, Appendix I
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4.3	Page 10-2
10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	Page 10-2
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	n/a
10645	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	Page 10-2

Appendix B. Demand Forecast Memorandum

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DATE: July 28, 2015
TO: Leslie Dumas
FR: David Mitchell
RE: 2nd Draft City of Vallejo Retail Water Demand Forecast

This memorandum presents the draft City of Vallejo retail water demand forecast along with the data and methodology used to generate it. According to its 2010 UWMP, the City of Vallejo also sells water on a wholesale basis to the City of American Canyon, the City of Benicia, and the Travis Airforce Base. This memorandum only pertains to the City of Vallejo's retail water demands, including its Lakes System.

Retail Demand Forecast Summary

Table 1 provides a summary of the demand forecast. The forecast is for unrationed demand under normal weather conditions. The demand model's forecast for 2015 therefore exceeds 2015 actual demand which was significantly reduced in response to the State's Emergency Drought Regulation. As explained later in the memo, forecasts of population, housing units, and service meters tie back to ABAG's 2013 Projections for the City of Vallejo.

Demand forecasts were also prepared for a single dry year and multiple dry year scenarios. The forecasts were adjusted to account for the effects of weather on demand in dry years using the CUWCC's GPCD Weather Normalization Methodology (Western Policy Research, 2011). The driest year on record since 1920 was chosen as the reference year for the single dry year forecast. This year was 2013. The driest three consecutive years on record since 1920 were selected as the reference years for the multiple dry year forecast. These years were 1988-1990. The dry year demand forecasts are summarized in Table 2.

The retail demand forecast includes adjustments for future water savings from:

1. Plumbing codes and appliance standards
2. Conservation DMM implementation
3. Projected increases in water cost and household income
4. Water loss management

These adjustments offset increases in forecasted demand caused by population and housing growth, resulting in a total demand forecast that is declining over the forecast period. Table 3 shows the impact of each adjustment on the forecast of total and per capita demand. The first forecast in the Table 3 is the baseline forecast with no adjustments. The adjustments are then made sequentially to this baseline forecast. The last forecast in Table 3 includes all four adjustments and corresponds to the total demand forecast in Table 1.

Total production and per capita production forecasts, along with their historical values, are shown in Figures 1 through 2. The dashed lines in the figures are +/- 10 percent error bands on the forecasts.¹

Figure 1. Actual and Projected City of Vallejo Retail Production

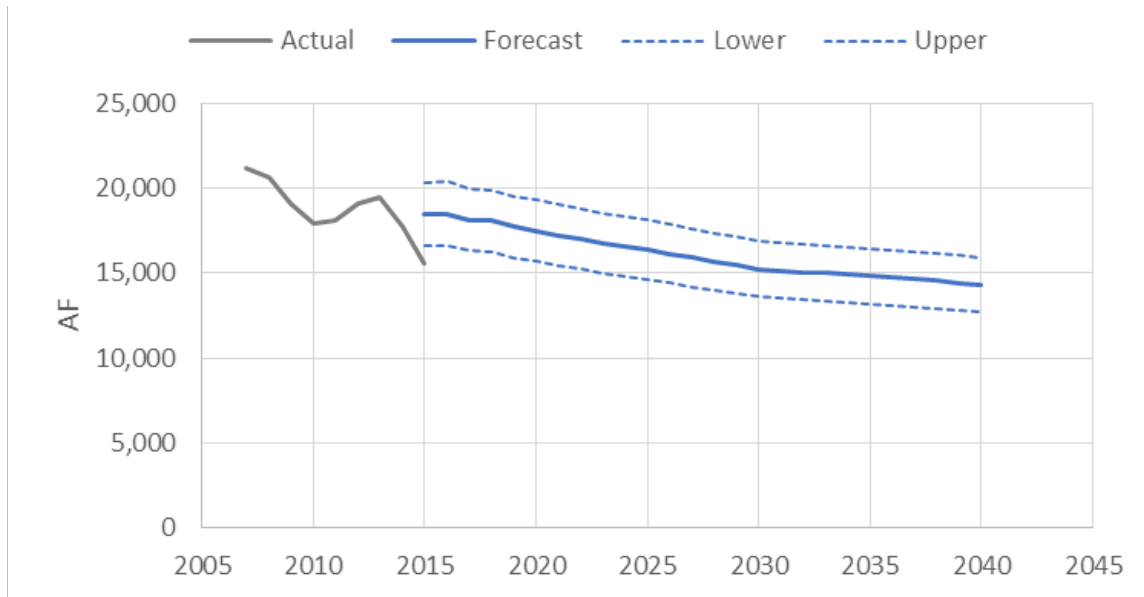
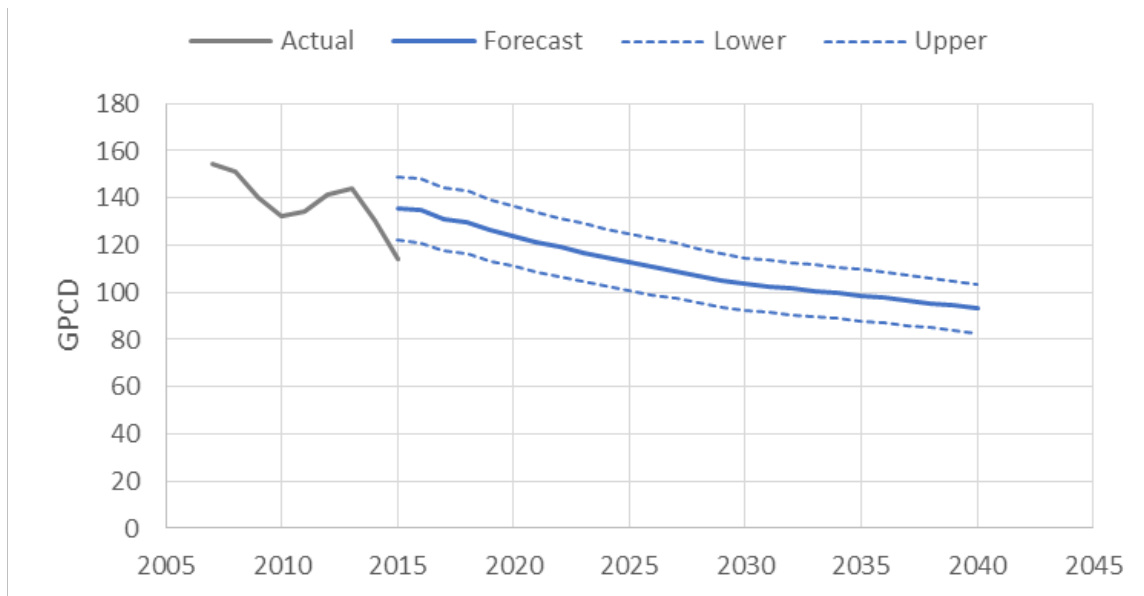


Figure 2. Actual and Projected City of Vallejo per Capita Water Production



¹ These are not statistical confidence intervals, which would show a significant widening the further the forecast moved into the future. The 10% error bands provide a rough indication of the typical degree of year-to-year variation in demand because of weather and economic shocks.

2nd Draft City of Vallejo Water Demand Forecast

Table 1. Summary of City of Vallejo Water Demand Forecast

	2015 Actual	2015 Forecast 1/	2020	2025	2030	2035	2040
Population	121,652	121,652	126,029	129,304	131,328	133,824	137,081
Residential	119,701	119,701	124,238	127,443	129,383	131,738	134,875
Group Quarters 2/	1,951	1,951	1,791	1,861	1,945	2,086	2,206
Total Connections	37,682	37,682	38,641	39,630	40,241	40,978	41,954
Demand in AF							
Single Family	6,647	8,152	7,951	7,717	7,451	7,258	7,000
Multi Family	1,762	1,837	1,871	1,847	1,820	1,812	1,812
Commercial	2,231	2,633	2,563	2,472	2,364	2,264	2,171
Irrigation	1,258	1,796	1,791	1,752	1,679	1,591	1,489
Other	386	364	377	387	393	400	410
Total Demand	12,284	14,782	14,552	14,175	13,706	13,326	12,882
Losses	3,251	3,704	2,916	2,183	1,523	1,481	1,431
Total Production	15,535	18,486	17,468	16,358	15,229	14,806	14,313
Per Capital Demand (GPCD)							
Residential	63	75	71	67	64	61	58
Total Production	114	136	124	113	104	99	93
1. Forecast of demand without rationing. Actual demand in 2015 was reduced significantly by the State's Emergency Drought Regulation.							
2. Institutionalized population residing in dormitories, jails, etc.							

Table 2. Dry Year Demand Forecasts

Total Production	2015 1/	2020	2025	2030	2035	2040	Reference Year
<i>Demand in AF</i>							
Normal Year	18,486	17,468	16,358	15,229	14,806	14,313	NA
Single Dry Year	19,401	18,332	17,167	15,982	15,539	15,021	2013
Multiple Dry Years							
Year 1	19,011	17,963	16,822	15,661	15,227	14,719	1988
Year 2	18,481	17,463	16,353	15,225	14,803	14,309	1989
Year 3	18,662	17,634	16,513	15,374	14,947	14,449	1990
1. Forecast of demand without rationing. Actual demand in 2015 was reduced significantly by the State's Emergency Drought Regulation.							

Table 3. Demand Forecast Adjustments

	2015 Forecast 1/	2020	2025	2030	2035	2040
Baseline (AF)	18,486	19,075	19,565	19,868	20,235	20,720
GPCD	136	135	135	135	135	135
Adjustments to Baseline Forecast						
Plumbing Codes (AF)	0	-394	-714	-962	-1,168	-1,346
Adjusted Forecast						
Demand (AF)	18,486	18,581	18,672	18,664	18,774	19,037
GPCD	136	132	129	127	125	124
DMMs (AF)	0	-107	-169	-217	-249	-274
Adjusted Forecast						
Demand (AF)	18,486	18,448	18,460	18,393	18,463	18,694
GPCD	136	131	127	125	123	122
Water Cost/Income (AF)	0	-199	-587	-1,002	-1,438	-2,066
Adjusted Forecast						
Demand (AF)	18,486	18,199	17,727	17,141	16,665	16,110
GPCD	136	129	122	117	111	105
Loss Mgt (AF)	0	-731	-1,369	-1,912	-1,859	-1,797
Adjusted Forecast						
Demand (AF)	18,486	17,468	16,358	15,229	14,806	14,313
GPCD	136	124	113	104	99	93

1. Forecast of demand without rationing. Actual demand in 2015 was reduced significantly by the State's Emergency Drought Regulation.

Forecast Methodology

The demand forecast is constructed stepwise as follows:

1. For each residential service class, the forecast of dwelling units is multiplied by baseline average use per dwelling unit to get baseline future demand. For non-residential service classes, service meters, rather than dwelling units, are used. Baseline use per dwelling unit (or service meter) is set to 2013 weather-normalized average use. Forecasts of residential dwelling units and non-residential service meters are derived from ABAG's 2013 population and housing projections for City of Vallejo and allowances for the Lakes System and outside-city customers.
2. Baseline water use is adjusted for expected water savings from plumbing codes and appliance standards, which are predicted to increase the efficiency of toilets, urinals, showerheads, clothes washers, and dishwashers over time. Water savings are estimated with the Alliance for Water Efficiency's Water Conservation Tracking Tool.
3. A second adjustment to baseline water use is made to account for expected water savings from DMM implementation by the City of Vallejo. Water savings are estimated with the Alliance for Water Efficiency's Water Conservation Tracking Tool.
4. A third adjustment to baseline water use is made to account for customer response to increases in the real cost of water and household income over time. Estimates of price elasticity for each service class and income elasticity for the residential classes in combination with forecasts of the growth in the real cost of water and household income are used to make this adjustment.²
5. An estimate of system loss is added to the forecast of adjusted baseline water demand to get the forecast of system production.

The calculations are enacted in an Excel workbook³ which holds the data and adjustment parameters. The forecast workbook can be used to audit the forecast data and calculations. It can also be used to generate alternative forecasts that rely on different data or adjustment assumptions.

Population, Dwelling Unit, and Service Meter Projections

Historical estimates of population and dwelling units are based on Department of Finance (DOF) E-5 and E-8 estimates for City of Vallejo plus allowances for outside-city and Lakes System customers prepared by RMC. Population and dwelling unit estimates were developed for the period 1996-2015. Tables 4, 5,

² Price elasticity measures the rate at which demand for a good changes in relation to changes in its price. Specifically, it measures the percentage change in demand given a percentage change in price. If, for example, price elasticity is estimated to be -0.2, this means that a 1% increase in price would be expected to result in a 0.2% decrease in demand. Price elasticities for municipal water demand are typically in the range of -0.1 to -0.5. Likewise, income elasticity measures the percentage change in the demand for a good given a one percent increase in income. Income elasticities for municipal water demand are typically in the range of 0.2 to 0.6 (Renzetti, 2002). Note that increases in price cause demand to go down while increases in income cause demand to go up. The two effects are partially offsetting.

³ vallejo_water_demand_forecast_workbook_v2.xlsx.

and 6 show the total, group quarters, and residential population estimates for the last five years 2011-2015.

Table 4. City of Vallejo Population Estimates

Year	Total	Group Quarters	Residential
2011	115,682	1,878	113,804
2012	115,817	1,896	113,921
2013	115,681	1,944	113,737
2014	116,299	1,936	114,363
2015	116,764	1,951	114,813

Source: DOF E-5 Population Estimates.

Table 5. Lakes System and Unincorporated Area Population Estimates

Year	Total	Group Quarters	Residential
2011	4,812	0	4,812
2012	4,820	0	4,820
2013	4,811	0	4,811
2014	4,861	0	4,861
2015	4,888	0	4,888

Source: RMC.

Table 6. Retail Water System Population Estimates

Year	Total	Group Quarters	Residential
2011	120,494	1,878	118,616
2012	120,637	1,896	118,741
2013	120,492	1,944	118,548
2014	121,160	1,936	119,224
2015	121,652	1,951	119,701

Source: Sum of Tables 4 and 5.

Table 7 shows occupied housing unit and household density estimates for 2011-2015. The estimates for the City of Vallejo are taken from DOF E-5. The estimates for the Lakes System and outside-city customers are based on RMC's population estimates.

Table 7. Retail Water System Occupied Dwelling Units and Persons per Dwelling Unit

Year	Occupied Dwelling Units				Avg Persons Per Dwelling Unit			
	Vallejo DOF E-5 Estimates	Lakes RMC Estimates	Unincorp RMC Estimates	Total	Vallejo DOF E-5 Estimates	Lakes RMC Estimates	Unincorp RMC Estimates	Total
2011	40,592	825	917	42,334	2.80	2.76	2.76	2.80
2012	40,639	825	920	42,384	2.80	2.76	2.76	2.80
2013	40,639	820	924	42,383	2.80	2.76	2.76	2.80
2014	40,680	827	927	42,434	2.81	2.77	2.77	2.81
2015	40,674	826	931	42,431	2.82	2.78	2.78	2.82

Estimated single-family and multi-family occupied dwelling units are shown in Table 8. Single-family occupied dwelling units are set equal to the number of single-family services in each year.⁴ Multi-family occupied dwelling units are set equal to the difference between total and single-family occupied dwelling units.

Table 8. Single- and Multi-Family Occupied Dwelling Unit Estimates

Year	Single-Family	Multi-Family	Total	% Single-Family
2011	32,093	10,241	42,334	76%
2012	32,267	10,117	42,384	76%
2013	32,390	9,993	42,383	76%
2014	32,544	9,890	42,434	77%
2015	32,682	9,749	42,431	77%

The number of services and average number of occupied dwelling units per service are shown in Table 9.

Table 9. Single- and Multi-Family Services

Year	Services			Avg. Occupied Dwelling Units per Service		
	Single-Family	Multi-Family	Total	Single-Family	Multi-Family	Total
2011	32,093	2,064	34,157	1.00	4.96	1.24
2012	32,267	2,073	34,340	1.00	4.88	1.23
2013	32,390	2,089	34,479	1.00	4.78	1.23
2014	32,544	2,089	34,633	1.00	4.73	1.23
2015	32,682	2,089	34,771	1.00	4.67	1.22

Projected population and dwelling units for 2020-2040 are based on ABAG’s 2013 population and housing projections for the City of Vallejo and allowances for the Lakes System and outside-city

⁴ Excluding Back Flow (BF) and Sewer Only (SO) services.

customers.⁵ Tables 10, 11, and 12 show projected population and Table 13 shows projected occupied dwelling units. The ABAG dwelling unit projection is for total dwelling units. Occupied dwelling units are forecast by adjusting ABAG’s total dwelling unit projection for expected vacancy. Projected vacancy rates range from 3 to 7 percent and are set to maintain the long-term historical average housing density of 2.84 persons per dwelling unit.⁶

Table 10. City of Vallejo Population Projections

Year	Total	Group Quarters	Residential
2015 (actual)	116,764	1,951	114,813
2020	121,032	1,791	119,242
2025	124,222	1,861	122,361
2030	126,190	1,945	124,244
2035	128,617	2,086	126,531
2040	131,790	2,206	129,584

Source: ABAG 2013 Projections.

Table 11. Lakes System and Unincorporated Area Population Projections

Year	Total	Group Quarters	Residential
2015 (actual)	4,888	0	4,888
2020	4,997	0	4,997
2025	5,081	0	5,081
2030	5,139	0	5,139
2035	5,207	0	5,207
2040	5,291	0	5,291

Source: City of Vallejo 2010 UWMP.

Table 12. Retail Water System Population Projections

Year	Total	Group Quarters	Residential
2015 (actual)	121,652	1,951	119,701
2020	126,029	1,791	124,238
2025	129,304	1,861	127,443
2030	131,328	1,945	129,383
2035	133,824	2,086	131,738
2040	137,081	2,206	134,875

Source: Sum of Tables 10 and 11.

⁵ Population within the unincorporated portion of Vallejo proper is assumed to increase at the same rate as the City of Vallejo. Connections (and associated population) within the Lakes System are assumed to increase at a rate of one connection per year. These are the same growth assumptions used in the 2010 UWMP.

⁶ The average density for the period 2001-2015 was 2.84.

Table 13. Retail Water System Occupied Dwelling Unit Projection

Year	Vallejo ABAG 2013 1/	Lakes System 2010 UWMP	Unincorp 2010 UWMP	Total
2015 (actual)	40,674	826	931	42,431
2020	41,986	831	965	43,782
2025	43,074	836	990	44,901
2030	43,745	841	1,006	45,592
2035	44,553	846	1,026	46,425
2040	45,627	851	1,051	47,529

1. Occupied dwelling units = total dwelling units – vacant dwelling units

Table 14 gives projected single-family and multi-family occupied dwelling units. Single-family dwelling units are assumed to comprise 76 percent of the occupied housing stock, which corresponds to the average share of single-family dwelling units for the period 2001-2015.

Table 14. Single- and Multi-Family Occupied Dwelling Unit Projections

Year	Single-Family	Multi-Family	Total	% Single-Family
2015 (actual)	32,682	9,749	42,431	77%
2020	33,396	10,387	43,782	76%
2025	34,249	10,652	44,901	76%
2030	34,776	10,816	45,592	76%
2035	35,411	11,013	46,425	76%
2040	36,253	11,275	47,529	76%

Single-family and multi-family service projections are shown in Table 15. Single-family services are assumed to equal projected occupied single-family dwelling units. Multi-family services are projected by dividing projected multi-family occupied dwelling units by the 2015 ratio of occupied multi-family dwelling units to multi-family services. This ratio is 4.67.

Table 15. Single- and Multi-Family Service Projections

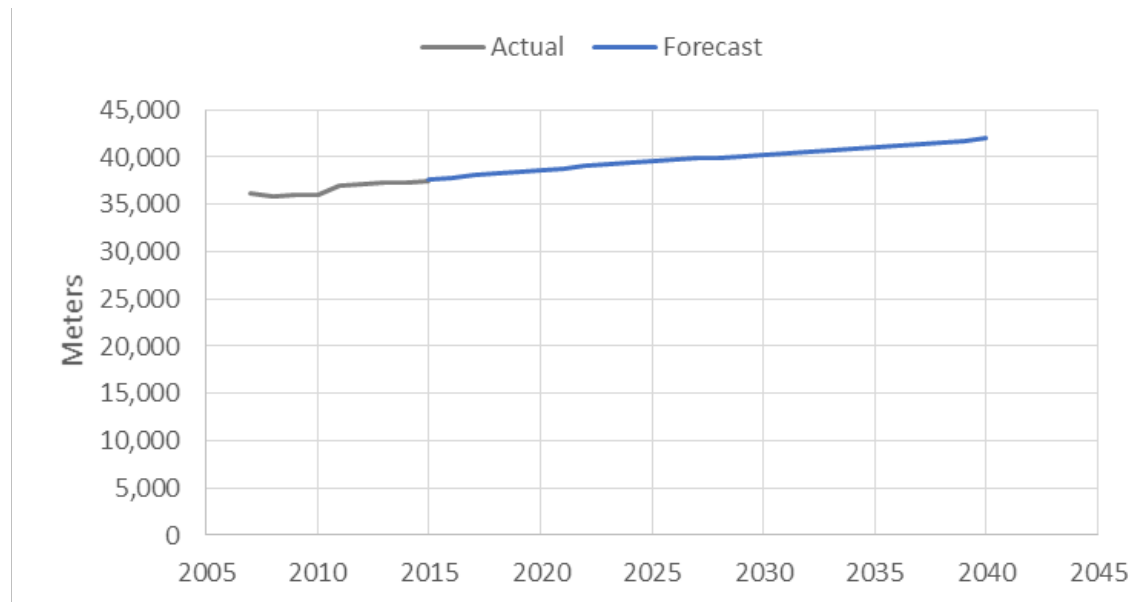
Year	Services			Avg. Occupied Dwelling Units per Service		
	Single-Family	Multi-Family	Total	Single-Family	Multi-Family	Total
2015 (actual)	32,682	2,089	34,771	1.00	4.67	1.22
2020	33,396	2,226	35,621	1.00	4.67	1.23
2025	34,249	2,282	36,531	1.00	4.67	1.23
2030	34,776	2,318	37,094	1.00	4.67	1.23
2035	35,411	2,360	37,771	1.00	4.67	1.23
2040	36,253	2,416	38,669	1.00	4.67	1.23

The projections of non-residential services are shown in Table 16. Non-residential services are projected to increase at the rate of service area population growth. Figure 3 shows actual and projected total retail water service connections.

Table 16. Non-Residential Service Projections

Year	Commercial	Irrigation	Other
2015 (actual)	1,869	468	404
2020	1,936	485	419
2025	1,987	497	429
2030	2,018	505	436
2035	2,056	515	444
2040	2,106	527	455

Figure 3. Actual and Projected Total Retail Water Service Connections



Baseline Average Use per Dwelling Unit and Non-Residential Service Meter

Baseline average use per dwelling unit and non-residential service meter is set to 2013 weather-normalized average annual use for each service class. Weather normalization follows the CUWCC GPCD Weather Normalization Methodology. This methodology adjusts demand in each month based on deviations from monthly average temperature and precipitation.⁷ Demand is positively correlated with deviations in temperature and negatively correlated with deviations in precipitation. The amount of

⁷ Monthly estimates of precipitation and average maximum daily air temperature for the period 1920-2015 for latitude 38.1144 longitude -122.2441 were downloaded from the PRISM Climate Group website (<http://www.prism.oregonstate.edu/explorer/>).

adjustment varies by season and by the amount of outdoor water use in the service area, as measured by the ratio of peak month to minimum month demand. The 2013 monthly adjustment factors are shown in Table 17. The last row of the table shows the annual adjustment factor, which is a production weighted-average of the monthly adjustment factors.

Table 17. 2013 Weather Normalization Factors

Month	Precip Factor	Temp Factor	Combined Factor
January	1.03	1.04	1.07
February	1.03	1.08	1.11
March	1.01	1.05	1.06
April	1.10	1.13	1.23
May	1.07	1.04	1.11
June	0.97	1.04	1.01
July	1.00	1.01	1.01
August	1.00	0.97	0.97
September	0.99	0.96	0.95
October	1.04	1.00	1.04
November	1.02	1.09	1.11
December	1.04	1.11	1.15
Weighted Annual	1.02	1.03	1.05

Weather-normalized baseline average demand is calculated by dividing 2013 average demand by the annual combined weather normalization factor. Actual and weather normalized baseline average demands by service class are shown in Table 18.

Table 18. Weather Normalized Baseline Average Annual Demand by Service Class

Service Class	Units	Actual 2013	Weather Normalized
Single Family	CCF/DU	114	109
Multi Family	CCF/DU	93	89
Commercial	CCF/Meter	644	614
Irrigation	CCF/Meter	1,754	1,672
Other	CCF/Meter	412	392

Unadjusted Baseline Demand Forecast

The unadjusted baseline demand forecast is calculated by multiplying the weather normalized baseline average demands in Table 18 by the forecast of dwelling units and service meters in Tables 15 and 16. The unadjusted baseline demand forecast is given in Table 19.⁸ The forecast in Table 19 does not

⁸ Volumes in Table 6 have been converted from CCF to AF.

include adjustments for expected water savings from plumbing codes and appliance standards, DMM implementation, or growth in the real cost of water and household income.

Table 19. Unadjusted Baseline Demand Forecast in AF 1/

	2015	2020	2025	2030	2035	2040
Single Family	8,152	8,330	8,543	8,674	8,833	9,043
Multi Family	1,837	1,957	2,007	2,038	2,076	2,125
Commercial	2,633	2,728	2,799	2,842	2,896	2,967
Irrigation	1,796	1,860	1,909	1,939	1,975	2,024
Other	364	377	387	393	400	410
Total Demand	14,782	15,252	15,644	15,887	16,180	16,568
Losses 2/	3,704	3,822	3,920	3,981	4,055	4,152
Total Production	18,486	19,075	19,565	19,868	20,235	20,720

1. Baseline forecast does not include adjustments for expected water savings from plumbing codes and appliance standards, DMM implementation, or growth in the real cost of water and household income.
2. Baseline system losses are estimated at 20% of total production, which is the average loss rate for the period 2011-2015.

Adjustments for Plumbing Codes and Appliance Standards

Over the next decades plumbing codes and appliance standards will work to increase the efficiency of toilets, urinals, showerheads, clothes washers, and dishwashers. For example, the standard for toilets recently changed from 1.6 to 1.28 gpf while the standard for urinals went from 1.0 to 0.25 gpf. Similarly, standards scheduled to take effect in 2016 and 2018 will ratchet down water used by showerheads, clothes washers, and dishwashers. This means new homes and businesses will install more efficient plumbing fixtures and water using appliances than is currently reflected in the existing stock upon which baseline average water use is based. It also means that existing homes will eventually replace their current fixtures and appliances as they wear out or as part of remodeling with more efficient fixtures and appliances. Overtime, this will result in a predictable decline in indoor water use per dwelling unit or service meter.

Expected water savings from plumbing fixture and appliance efficiency standards were estimated with the Alliance for Water Efficiency’s (AWE) Water Conservation Tracking Tool.⁹ This is a model in wide use in California and throughout North America specifically designed to estimate water savings associated with plumbing codes, appliance standards, and utility-based conservation programs.¹⁰ The model uses the forecasts of population and dwelling units along with estimates of average persons per household and plumbing fixtures and appliances per household to estimate plumbing fixture and appliance water uses with and without the efficiency standards. The difference between the two forecasts provides the estimate of the expected water savings. These estimates are shown in Table 20.

⁹ <http://www.allianceforwaterefficiency.org/Tracking-Tool.aspx>

¹⁰ The Alliance for Water Efficiency estimates there are currently 400 utilities throughout North America using the model for conservation program planning.

Table 20. Demand Adjustments for Plumbing Fixture and Appliance Efficiency Standards in AF

	2015	2020	2025	2030	2035	2040
Single Family	0	-232	-428	-579	-702	-808
Multi Family	0	-89	-153	-204	-246	-283
Commercial	0	-73	-133	-179	-220	-255
Irrigation	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total Adjustment	0	-394	-714	-962	-1,168	-1,346

Adjustments for DMM Implementation

The City of Vallejo is a member of the CUWCC and implements the BMPs (which the UWMP Act refers to as DMMs). Not all DMMs have quantifiable water savings. For example, water savings estimates associated with public information and school education DMMs are generally unreliable. However, water savings associated with fixture replacement and customer survey/audit DMMs can be quantified using the AWE Water Conservation Tracking Tool.

The City of Vallejo expects to continue implementing fixture replacement and customer survey/audit DMMs at the rate they have been implemented historically. Recent DMM implementation is summarized in Table 21. The average implementation rate shown in the last column of Table 21 was used to estimate future water savings from DMM implementation. The resulting demand adjustments are shown in Table 22.

Table 21. City of Vallejo Implementation of Fixture Replacement and Customer Survey/Audit DMMs

	2014-15	2012-13	2011-12	2010-11	Avg
Devices Distributed					
SF Shower Heads	268	385	217	186	264
MF Shower Heads	17	25	14	12	17
CII Shower Heads	112	0	37	37	47
Rebates/Direct Install					
Residential HE Toilets	421	359	91	95	242
CII HE Toilets	224	248	192	192	214
Clothes Washers	133	339	185	114	193
Turf Replacement (Residential Sites)	51	6	8	0	16
Irr Controllers	0	5	5	0	3
Surveys					
Residential home surveys	169	154	109	228	165
Large Landscape Surveys	3	3	3	2	3

Source: City of Vallejo CUWCC BMP Reports. No report provided for FY 2013-14.

Table 22. Demand Adjustments for DMM Implementation in AF

	2015	2020	2025	2030	2035	2040
Single Family	0	-59	-88	-110	-121	-129
Multi Family	0	-1	-1	-1	-1	-1
Commercial	0	-39	-72	-98	-119	-136
Irrigation	0	-8	-8	-8	-8	-8
Other	0	0	0	0	0	0
Total Adjustment	0	-107	-169	-217	-249	-274

Adjustments for Growth in Real Cost of Water and Household Income

As the real cost of water increases, demand for water will be affected. Municipal water service is a normal economic good; as price goes up, less is demanded. This has been demonstrated conclusively through numerous empirical studies of municipal water use.¹¹ Similarly, as household incomes go up, more is demanded.

The degree of responsiveness to changes in the real cost of water is measured by price elasticity. Price elasticity estimates the percentage change in demand given a percentage change in the real (inflation-adjusted) price. Price elasticity has been estimated for numerous municipal water providers in California. Recent estimates include studies by M.Cubed (2013, 2015a, 2015b, 2015c), A&N Technical Services (2014), and Western Policy Research (2014). Jenkins et al. (2003) provide a summary of estimates from studies done in the 1980s and 1990s. The CUWCC's Conservation Rate Handbook also provides recommended price elasticities for residential water demand. Based on these and other studies, we have set the price elasticity parameters for each service class to the ranges shown in Table 23. We have used the mid-point estimate to calculate the price-induced demand adjustments in the forecast presented in this memorandum.

Table 23. Water Demand Price Elasticity Ranges

	Lower	Mid-Point	Upper
Single Family	-0.15	-0.20	-0.25
Multi Family	0.00	-0.05	-0.10
Commercial	-0.10	-0.15	-0.20
Irrigation	-0.20	-0.25	-0.30

There is significant uncertainty regarding the future growth in water rates over the forecast period. Over the past two decades, rates for municipal water service have been increasing faster than inflation in most of California and in much of the rest of the country. In the case of City of Vallejo, volumetric rates have increased at an annual rate of about 4.6% since 2005. City of Vallejo has indicated it is

¹¹ See Renzetti (2002) for a comprehensive review of the empirical evidence of municipal demand response to changes in price. Other reviews of the empirical evidence are provided by Dalhuisen et al. (2003) and Espey et al. (1997).

planning for a rate increase of about 9% in 2017 and another similar increase two years later in 2019. After 2019, the rate of potential increase is much less certain.

Water rates in California are expected to continue to rise faster than general inflation as water systems reinvest in aging infrastructure and develop new, more expensive sources of water supply. In economic studies done for the Bay Delta Conservation Plan, DWR assumed water rates in Southern California and the Bay Area would rise at an average annual rate of 5% over the next 50 years while it assumed inflation would average 2% over the same period (Sunding et al., 2013). This translates to a 3% average annual rate of growth in the real cost of water.

For this forecast, we have assumed that rates will increase by 9% in 2017 and 2019 and then at an average annual rate of 5% starting in 2020. Inflation is assumed to average 2% over the forecast period. This is in line with the assumptions used by DWR for the Bay Area overall, and is consistent with the historical rate of increase observed between 2005 and 2016.

The effect of higher water rates on residential water demand will be partially offset by projected increases in household income. The effect of changes in income on residential demand has also been studied empirically. Empirical estimates of income elasticity for municipal water service typically fall within the range of 0.2 to 0.6 for single-family households (Renzetti, 2002). Income elasticity for multi-family households is lower, because these household usually do not pay directly for water service and also have little direct influence over landscape area.¹² Based on a review of the literature, we have set the income elasticity parameters for the residential service classes to the ranges shown in Table 24.

Projected increases in real per capita income between 2015 and 2040 are taken from Caltrans’s 2015 Solano County Economic Forecast (Caltrans, 2015).

Table 24. Water Demand Price Elasticity Ranges

	Lower	Mid-Point	Upper
Single Family	0.2	0.4	0.6
Multi Family	0.1	0.2	0.3

The resulting adjustments to demand given the projected real increases in water cost and income are summarized in Table 25. Note that these adjustment assume the City of Vallejo continues to recover approximately 40% of its sales revenues through service charges and 60% through volume charges.¹³

¹² Though they do have indirect influence through their collective choices in rental units and associated amenities.

¹³ The demand adjustments in Table 25 are a function of the marginal cost of water paid by the consumer which in turn depends on the volumetric rate. It is possible for the marginal price to decrease even in years where overall rates increase if revenue recovery is shifted from the volume charge to the fixed charge. The demand forecast assumes the share of total sales revenue recovered through the volume charge does not change relative to its value today.

Table 25. Demand Adjustments for Growth in Real Cost of Water and Household Income in AF

	2015	2020	2025	2030	2035	2040
Single Family	0	-88	-309	-535	-752	-1,106
Multi Family	0	2	-7	-14	-16	-29
Commercial	0	-52	-122	-201	-293	-404
Irrigation	0	-61	-149	-252	-376	-527
Other	0	0	0	0	0	0
Total Adjustment	0	-199	-587	-1,002	-1,438	-2,066

Adjustments for Water Loss Management

System water losses over the last five years (2011-2015) have averaged 20%. The demand forecast assumes that renewal and replacement of distribution system infrastructure and active water loss management will reduce water losses to 10% by 2030. The assumed annual water loss percentages and adjustment to the demand forecast are shown in Table 26.¹⁴

Table 26. Demand Adjustments for Water Loss Management in AF

	2015	2020	2025	2030	2035	2040
Water Loss Percentage	20.0%	16.7%	13.3%	10.0%	10.0%	10.0%
Demand Adjustment	0	-731	-1,369	-1,912	-1,859	-1,797

Adjusted Baseline Demand Forecast

The adjusted baseline demand and system production forecast is summarized in Table 27. System production is the sum of adjusted baseline demand and system losses. Baseline system losses are based on the 2011-15 five-year average loss rate of 20%.

¹⁴ Note that because water loss is being estimated as a percentage of total production, the magnitude of the demand adjustment is a function of the baseline demand and the magnitude of the other demand adjustments. Turning off one or more of the other adjustments in the forecast model will alter the magnitude of the water loss adjustment shown in Table 26.

Table 27. Adjusted Baseline Demand Forecast in AF

	2015	2020	2025	2030	2035	2040
Unadjusted Baseline Demand						
Single Family	8,152	8,330	8,543	8,674	8,833	9,043
Multi Family	1,837	1,957	2,007	2,038	2,076	2,125
Commercial	2,633	2,728	2,799	2,842	2,896	2,967
Irrigation	1,796	1,860	1,909	1,939	1,975	2,024
Other	364	377	387	393	400	410
Total Demand	14,782	15,252	15,644	15,887	16,180	16,568
System Losses	3,704	3,822	3,920	3,981	4,055	4,152
Total Production	18,486	19,075	19,565	19,868	20,235	20,720
Adjustments for Plumbing Code and Appliance Standards						
Single Family	0	-232	-428	-579	-702	-808
Multi Family	0	-89	-153	-204	-246	-283
Commercial	0	-73	-133	-179	-220	-255
Irrigation	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total Adjustment	0	-394	-714	-962	-1,168	-1,346
Adjustments for DMM Implementation						
Single Family	0	-59	-88	-110	-121	-129
Multi Family	0	-1	-1	-1	-1	-1
Commercial	0	-39	-72	-98	-119	-136
Irrigation	0	-8	-8	-8	-8	-8
Other	0	0	0	0	0	0
Total Adjustment	0	-107	-169	-217	-249	-274
Adjustments for Growth in Real Cost of Water and Household Income						
Single Family	0	-88	-309	-535	-752	-1,106
Multi Family	0	2	-7	-14	-16	-29
Commercial	0	-52	-122	-201	-293	-404
Irrigation	0	-61	-149	-252	-376	-527
Other	0	0	0	0	0	0
Total Adjustment	0	-199	-587	-1,002	-1,438	-2,066
Adjustments for System Loss Management						
Total Adjustment	0	-731	-1,369	-1,912	-1,859	-1,797
Adjusted Baseline Demand						
Single Family	8,152	7,951	7,717	7,451	7,258	7,000
Multi Family	1,837	1,871	1,847	1,820	1,812	1,812
Commercial	2,633	2,563	2,472	2,364	2,264	2,171
Irrigation	1,796	1,791	1,752	1,679	1,591	1,489
Other	364	377	387	393	400	410
Total Adjusted Demand	14,782	14,552	14,175	13,706	13,326	12,882
System Losses	3,704	2,916	2,183	1,523	1,481	1,431
Total Production	18,486	17,468	16,358	15,229	14,806	14,313

Dry Year Demand Forecasts

The same methodology used to weather-normalize 2013 baseline average demand is used to calculate the weather adjustments for the dry-year demand forecasts. In this case, however, we multiply the forecast by the combined annual weather normalization factor rather than divide by it as we did to weather normalize 2013 demand.¹⁵ In the case of the single dry year scenario, which is based on the 2013 weather year, the combined adjustment factor is the one given in Table 17. The adjustment factors for the multiple dry year forecasts are given in Table 28. The weather reference years for the multiple dry year forecasts are 1988-1990.

It is interesting to note that even though 1988-90 are the driest three consecutive years since 1920, the monthly pattern of rainfall and temperature in these years is not expected to have a significant impact on overall annual demand. Weather effects are significant in certain months, such as in April of 1989 and 1990, but in other months the weather effects are negligible, and in still other months they would be expected to cause demand to decrease. Importantly, the weather effects in the key outdoor water use months of May through September are small, which is why the overall annual effect is small. This is not unique to Vallejo. In general, the impact of a dry year on available water supply is what matters most. While drier and hotter than normal weather also causes a bump in demand, it is usually not more than a few percent across the entirety of a year.

Table 28. Combined Weather Adjustment Factors for 1988-90

Month	1988	1989	1990
January	1.00	1.06	1.02
February	1.16	1.00	0.99
March	1.11	0.92	1.02
April	1.07	1.17	1.21
May	0.98	1.05	0.79
June	0.96	0.96	1.00
July	1.02	1.00	1.00
August	1.01	1.00	0.99
September	1.02	0.89	1.00
October	1.05	0.90	1.06
November	0.98	1.09	1.06
December	1.06	1.09	0.99
Weighted Annual	1.03	1.00	1.01

The dry year demand forecasts are given in Table 29. This table is simply a reproduction of Table 2.

¹⁵ This is because we are taking a forecast based on normal weather and adjusting it to reflect the actual weather for the reference year. In the case of the 2013 reference year, the drier and hotter weather is estimated to cause annual demand to increase by 5% from what we would expect if monthly weather had been normal. When we weather normalized 2013 demand, the opposite was the case. We started with demands that reflected the actual weather in 2013 and reduced them by 5% to reflect what demands would have been had monthly weather been normal.

Table 29. Dry Year Demand Forecasts

Total Production	2015	2020	2025	2030	2035	2040	Reference Weather Year
			<i>Demand in AF</i>				
Normal Year	18,486	17,468	16,358	15,229	14,806	14,313	NA
Single Dry Year	19,401	18,332	17,167	15,982	15,539	15,021	2013
Multiple Dry Years							
Year 1	19,011	17,963	16,822	15,661	15,227	14,719	1988
Year 2	18,481	17,463	16,353	15,225	14,803	14,309	1989
Year 3	18,662	17,634	16,513	15,374	14,947	14,449	1990

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Appendix C. AWWA Water Loss Audit

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AWWA Water Loss Worksheet - Vallejo System



AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association

? Click to access definition
+ Click to add a comment

Water Audit Report for: City Of Vallejo
Reporting Year: 2015 1/2015 - 12/2015

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

WATER SUPPLIED

<----- Enter grading in column 'E' and 'J' ----->

Volume from own sources:	+ ?	7	14,590.780	acre-ft/yr
Water imported:	+ ?	n/a		acre-ft/yr
Water exported:	+ ?	n/a		acre-ft/yr

Master Meter and Supply Error Adjustments

Pcmt:	5	-0.37%		acre-ft/yr
Value:				acre-ft/yr
				acre-ft/yr

WATER SUPPLIED: **14,644.966** acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Billed metered:	+ ?	5	11,622.000	acre-ft/yr
Billed unmetered:	+ ?	n/a		acre-ft/yr
Unbilled metered:	+ ?	n/a		acre-ft/yr
Unbilled unmetered:	+ ?		183.062	acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: **11,805.062** acre-ft/yr

Click here: ? for help using option buttons below

Pcmt: 1.25% Value: acre-ft/yr

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

2,839.904 acre-ft/yr

Apparent Losses

Unauthorized consumption:	+ ?		36.612	acre-ft/yr
---------------------------	-----	--	--------	------------

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	+ ?	2	359.443	acre-ft/yr
Systematic data handling errors:	+ ?		29.055	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **425.111** acre-ft/yr

Pcmt: 0.25% Value: acre-ft/yr

3.00% Value: acre-ft/yr

0.25% Value: acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **2,414.794** acre-ft/yr

WATER LOSSES: **2,839.904** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **3,022.966** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+ ?	7	483.0	miles
Number of <u>active AND inactive</u> service connections:	+ ?	5	40,649	
Service connection density:	?		84	conn./mile main

Are customer meters typically located at the curbside or property line? Yes

Average length of customer service line: + ? (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	+ ?	4	65.0	psi
-----------------------------	-----	---	------	-----

COST DATA

Total annual cost of operating water system:	+ ?	8	\$27,431,572	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+ ?	8	\$3.53	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+ ?	7	\$239.75	\$/acre-ft <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 62 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Customer metering inaccuracies
- 3: Billed metered

AWWA Water Loss Worksheet - Lakes System



AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association

? Click to access definition
+ Click to add a comment

Water Audit Report for: City Of Vallejo - Lakes System
Reporting Year: 2015 1/2015 - 12/2015

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

WATER SUPPLIED

<----- Enter grading in column 'E' and 'J' ----->

Volume from own sources:	+ ?	7	352.140	acre-ft/yr
Water imported:	+ ?	n/a		acre-ft/yr
Water exported:	+ ?	n/a		acre-ft/yr

Master Meter and Supply Error Adjustments

Pcmt:	5	-1.00%		acre-ft/yr
Value:				acre-ft/yr
				acre-ft/yr

WATER SUPPLIED: 355.697 acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Billed metered:	+ ?	5	235.110	acre-ft/yr
Billed unmetered:	+ ?	n/a		acre-ft/yr
Unbilled metered:	+ ?	n/a		acre-ft/yr
Unbilled unmetered:	+ ?		4.446	acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 239.556 acre-ft/yr

Click here: ? for help using option buttons below

Pcmt: 1.25% Value: [] acre-ft/yr

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

116.141 acre-ft/yr

Apparent Losses

Unauthorized consumption: + ? 0.889 acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	+ ?	2	7.271	acre-ft/yr
Systematic data handling errors:	+ ?		0.588	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 8.748 acre-ft/yr

Pcmt: 0.25% Value: [] acre-ft/yr

3.00% [] acre-ft/yr

0.25% [] acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 107.392 acre-ft/yr

WATER LOSSES: 116.141 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 120.587 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+ ?	7	46.3	miles
Number of active AND inactive service connections:	+ ?	5	898	
Service connection density:	?		19	conn./mile main

Are customer meters typically located at the curbside or property line? Yes

Average length of customer service line: + ? (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: + ? 4 65.0 psi

COST DATA

Total annual cost of operating water system:	+ ?	8	\$2,250,474	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+ ?	8	\$11.95	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+ ?	7	\$328.59	\$/acre-ft <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 62 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Customer metering inaccuracies
- 3: Billed metered

Appendix D. City Ordinance No, 1708 and Chapter
11.54 of the Municipal Code

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ORDINANCE NO. 1708 N.C. (2d)

AN ORDINANCE OF THE CITY OF VALLEJO AMENDING CHAPTER 11 OF THE VALLEJO MUNICIPAL CODE RELATED TO DROUGHT RESTRICTIONS AND PENALTIES

WHEREAS, On January 17, 2014, Governor Edmund G. Brown, Jr. issued Proclamation No. 1-17-2014 declaring a State of Emergency to exist in California due to severe drought conditions and calling on Californians to reduce their water usage by 20 percent; and

WHEREAS, On April 25, 2014, the Governor issued an Executive Order to strengthen the State's ability to manage water and directed the State Water Resources Control Board (SWRCB) to adopt emergency regulations as it deems necessary to address water shortage conditions; and

WHEREAS, On July 15, 2014, the SWRCB adopted 23 California Code of Regulations, Sections 863, 864, and 865, emergency regulations finding a drought emergency in California and imposing water conservation measures on individuals and water suppliers, which regulation became effective July 28, 2014, upon approval by the Office of Administrative Law and was scheduled to expire on April 25, 2015; and

WHEREAS, On March 17, 2015, the SWRCB re-adopted and expanded emergency regulations because of the continuing emergency drought conditions, and the need to act to extend the prohibitions before they expired; and

WHEREAS, Section 864 applies to all Californians and prohibits certain activities in promotion of water conservation, and Section 865 requires mandatory outdoor irrigation restrictions and reporting by water suppliers, including urban water suppliers like the City of Vallejo; and

WHEREAS, On March 27, 2015, the State Office of Administrative Law approved the SWRCB's proposed regulations and they became effective; and

WHEREAS, the City Council adopted Resolution No. 14-102 N.C. on August 26, 2014 to implement outdoor water use restrictions in compliance with the July 2014 State emergency drought regulation; and

WHEREAS, the City has promoted conservation and sought voluntary reductions in water use by its customers and City departments and has achieved a 10 percent reduction in 2014 over the same period in 2013; and

WHEREAS, the City's water supply has been limited for extended periods of time in 2014 and will be limited for an extended period of time in 2015 to 100 percent Solano Project (Lake Berryessa); and

WHEREAS, the City is party to the Solano Project Members' Agreement which requires curtailments in the amounts of water taken under the respective member's annual entitlements during certain drought conditions; and

WHEREAS, lake levels in Lake Berryessa have not triggered mandatory curtailments of Solano Project members' annual entitlements; and

WHEREAS, the City's Municipal Code, and Water Shortage Contingency Plan adopted by resolution of City Council in 2006 contain provisions to achieve responsible management of the City's water resources.

THE COUNCIL OF THE CITY OF VALLEJO DOES ORDAIN AS FOLLOWS:

SECTION 1. Chapter 11.54 of the Vallejo Municipal Code is amended to add the following:

11.54.050 – Drought Restrictions.

Until December 23, 2015, the 270-day period specified in State Water Resources Control Board ("Board") Resolution No. 2015-0013, or as extended by the Board:

- a. No outdoor irrigation of ornamental landscapes or turf with potable water is permitted between the hours of 9:00 a.m. and 6:00 p.m., except for drip irrigation, soaker hoses and hand watering by container or hose equipped with a shut-off nozzle.
- b. The application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, parking lots, or structures is prohibited.
- c. The application of potable water to driveways and sidewalks is prohibited, except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a state or federal agency.
- d. The use of potable water in a fountain or other decorative feature is prohibited.
- e. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
- f. The serving of drinking water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served and/or purchased, is prohibited.
- g. Operators of hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily, and the hotel or motel shall prominently display notice of this option in each guestroom using clear and easily understood language.
- h. Irrigation of landscape, pasture, and common areas shall be limited to a maximum of three days per week when necessary based on the following schedule: Customers with street addresses that end with an odd number may irrigate only on Tuesday, Thursday, and Saturday; customers with street addresses that end with an even number may irrigate only on Monday, Wednesday, and Friday. Common areas may be irrigated only on Monday, Wednesday, and Friday.

11.54.060 – Enforcement and Penalties.

Violations of any provision of Section 11.54.050 shall be enforced as follows:

- a. For a first violation, the customer shall receive a notice of violation.
- b. For a second violation, the customer shall receive an administrative citation with a fine of \$200.
- c. For a third violation, the customer shall receive an administrative citation with a fine of \$500.
- d. Administrative citations shall be issued pursuant to chapter 1.15.

SECTION 2. SEVERABILITY

If any section, subsection, sentence, clause, phrase, or word of this Ordinance is for any reason held to be invalid by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed and adopted this Ordinance, and each and all provisions hereof, irrespective of the fact that one or more provisions may be declared invalid.

SECTION 3. EFFECTIVE DATE

This Ordinance shall take effect and be in full force thirty (30) days from and after its final passage.

FIRST READ at a regular meeting of the Council of the City of Vallejo held on the 28th day of April, 2015 and finally passed and adopted a regular meeting of the Council held on the 12th day of May, 2015 by the following vote:

AYES: Mayor Davis, Vice Mayor Malgapo, Councilmembers Dew-Costa, McConnell, Miessner, Sampayan and Verder-Aliga
NOES: None
ABSTAIN: None
ABSENT: None



OSBY-DAVIS, MAYOR

ATTEST:



DAWN G. ABRAHAMSON, CITY CLERK

Appendix E. 2015 SWP Delivery Reliability Report

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The State Water Project Final Delivery Capability Report 2015

July 2015



State of California
Natural Resources Agency
Department of Water Resources

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Summary

This report is intended to inform the public about key factors important to the operation of the State Water Project (SWP) and an estimate of its current delivery capability.

For many SWP water contractors, water provided by the SWP is a major component of the water supplies available to them. SWP contractors include cities, counties, urban water agencies, and agricultural irrigation districts. These local utilities and other public and private entities provide the water that Californians use at home and work every day and that helps to nourish the state's bountiful crops. Thus, the availability of water from the SWP is an important component to the water supply planning of its recipients and ultimately affects the amount of water that local residents and communities can use.

The availability of these water supplies may be highly variable. A wet water year may be followed by a dry or critically dry year. Knowing the probability that they will receive a certain amount of SWP water in a given year—whether it be a wet water year, a critical year, or somewhere in between—gives contractors a better sense of the degree to which they may need to implement increased conservation measures or plan for new additional, or back up sources of water supply to meet their needs.

The Delta is the key to the SWP's ability to deliver water to its agricultural and urban contractors in the North Bay, the South Bay, California Central Valley, and Southern California. All but five of the 29 SWP contractors receive water deliveries from the Delta (pumped by either the Harvey O. Banks or Barker Slough pumping plants).

Yet the Delta faces numerous challenges to its long-term sustainability. For example, climate change poses the threat of increased variability in floods and droughts, and sea level rise complicates efforts to manage salinity levels and preserve water quality in the Delta so that the water remains suitable for urban and agricultural uses. Among the other challenges are continued subsidence of Delta islands, many of which are already below sea level, and the related threat of a catastrophic levee failure as water pressure increases on fragile levees.

Protection of endangered and threatened fish species, such as the delta smelt, is also an important factor of concern for the Delta environment. Ongoing regulatory restrictions, such as those imposed by federal biological opinions on the effects of SWP and Central Valley Project (CVP) operations on these species also contribute to the challenges of determining the SWP's water delivery capability.

Two large-scale plans for the Delta that are being developed could affect SWP water delivery capability: the Delta Plan and the Bay Delta Conservation Plan (BDCP). When complete, the BDCP will provide the basis for issuing endangered species permits to operate the SWP and CVP. The BDCP seeks to improve the health of the ecological system as a whole.

The analyses in this report factor in all of the regulations governing SWP operations in the Delta and upstream, and assumptions about water uses in the upstream watersheds. Analyses were conducted that considered the amounts of water that SWP

contractors use and the amounts of water they choose to hold for use in a subsequent year.

Many of the same specific challenges to SWP operations described in the *State Water Project Delivery Reliability Report 2013* remain in 2015. Most notably, the effects on SWP pumping caused by issuance of the 2008 and 2009 federal biological opinions (BOs), which were reflected in the 2013 Report, continue to affect SWP delivery capability today. Hence, the differences between the 2013 and 2015 reports can be attributed primarily to updates in the assumptions and inputs to the simulation studies.

SWP exports have decreased since 2005, although the bulk of the change occurred by 2009 as the federal BOs went into effect, restricting operations. These effects are also reflected in the SWP delivery estimates. The most salient findings in this report are as follows:

- Under existing conditions, the average annual delivery of Table A water estimated for this 2015 Report is 2,550 taf/year, 3 taf less than the 2,553 taf/year estimated for the 2013 Report.
- The likelihood of existing-condition SWP Article 21 deliveries (supplemental deliveries to Table A water) being greater than 20 taf/year has decreased by 3% relative to the likelihood presented in the 2013 Report.

Section 1

Reasons to Assess SWP Water Delivery Capability

Two major factors underscore the importance of assessing the SWP's water delivery capability: the effects of population growth on California's balance of water supply and demand, and State legislation intended to help maintain a reliable water supply.

Population Growth, Land Use, and Water Supply

California's population has grown rapidly in recent years, with resulting changes in land use. This growth is expected to continue. From 1990 to 2005, California's population increased from about 29.8 million to about 36 million. Based on this trend, California's population has been projected to be more than 40.8 million by 2020. The "current trends" scenario depicted in the *California Water Plan 2013* for year-2050 conditions, based on the California Department of Finance's projections of 2010 U.S. Census data, assumes a population of nearly 51 million—a 75% increase in the 1990 population.

The amount of water available in California—or in different parts of the state—can vary greatly from year to year. Some areas may receive 2 inches of rain a year, while others are deluged with 100 inches or more. As land uses have changed, population centers have emerged in many locations without sufficient local water supplies. Thus, Californians have always been faced with the problem of how best to conserve, control, and move water from areas of abundant water to areas of water need and use.

Legislation on Ensuring a Reliable Water Supply

The laws described below impose specific requirements on both urban and agricultural water suppliers. These laws increase the importance of SWP water delivery capability estimates to water suppliers.

California Urban Water Management Planning Act

The Urban Water Management Planning Act was enacted in 1983 (California Water Code, Sections 10610–10656). As amended, this law requires urban water suppliers to adopt urban water management plans (UWMPs) every 5 years and submit those plans to DWR. DWR reviews submitted plans to report to the legislature on the status of submitted plans and for the purposes of grant eligibility requirements.

UWMPs must include an estimate of water supply and demand for the 20-year planning time frame for three water year types, normal, single dry year and multi dry years. SWP contractors rely on the SWP water delivery capability estimates to develop the water supply estimates.

The most recent round of UWMPs (2010) was required to be adopted by July 1, 2011 and submitted to DWR by August 1, 2011.

Urban Water Conservation Law requires that the State of California reduce urban per capita water use statewide by 10% by the end of 2015 and 20% by the end of 2020. Water suppliers calculated baseline water use and set 2015 and 2020 water use targets in their 2010 UWMPs. Water suppliers will report on water use target compliance in the 2015 and 2020 UWMPs. DWR is required to report to the Legislature on progress toward meeting the State's 20% by 2020 goals.

DWR publishes a guidebook to assist water suppliers prepare their urban water management plans. DWR is currently updating the guidebook for the 2015 round of plans. Guidance documents are available at <http://www.water.ca.gov/urbanwatermanagement>.

The municipalities and water districts that have adopted 2010 UWMPs and submitted them to DWR are listed at <http://www.water.ca.gov/urbanwatermanagement/2010uwmps/>.

Water Conservation Act

The Water Conservation Act of 2009 (Senate Bill X7.7, Steinberg), enacted in November 2009, includes requirements for urban and agricultural suppliers. Water suppliers report on compliance with these requirements in either the urban or agricultural water management plans. DWR reviews submitted plans for consistency with Water Conservation Act requirements.

In addition, as part of the Water Conservation Act, agricultural water suppliers with 25,000 acres or more of irrigated land were required to prepare and adopt agricultural water management plans and submit the plans to DWR by the end of 2012 and then once every five years beginning in 2015. The Act also required suppliers to measure volumetrically water deliveries to farms and base the price of water sales at least in part on the volume of water delivered. Water suppliers were required to report on water measurement and water pricing in their water management plans.

In November 2012, DWR released a guidebook for developing agricultural water management plans:

<http://www.water.ca.gov/wateruseefficiency/sb7/docs/AgWaterManagementPlanGuidebook-FINAL.pdf>.

Water agencies filing agricultural water management plans as of July 2013 are listed on a Web page maintained by DWR's Water Use and Efficiency Branch:

http://www.water.ca.gov/wateruseefficiency/sb7/docs/2012_AWMPs_Received_07-16-2013.pdf.

Section 2

Regulatory Restrictions on SWP Delta Exports

Multiple needs converge in the Delta: the need to protect a fragile ecosystem, to support Delta recreation and farming, and to provide water for agricultural and urban needs throughout much of California. Various regulatory requirements are placed on the SWP's Delta operations to protect special-status species such as delta smelt and spring- and winter-run Chinook salmon. As a result, as described below, restrictions on SWP operations imposed by State and federal agencies contribute substantially to the challenges of accurately determining the SWP's water delivery capability in any given year.

Biological Opinions on Effects of Coordinated SWP and CVP Operations

Several fish species listed under the federal Endangered Species Act (ESA) as threatened or endangered are found in the Delta. The continued viability of populations of these species in the Delta depends in part on Delta flow levels. For this reason, the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) have issued several BOs since the 1990s on the effects of coordinated SWP/CVP operations on several listed species.

These BOs affect the SWP's water delivery capability for two reasons. Most notably, they include terms that restrict SWP exports from the Delta to specific amounts at certain times under certain conditions. In addition, the BOs' requirements are predicated on physical and biological conditions that occur daily while DWR's water supply models are based on monthly data.

The first BOs on the effects of SWP (and CVP) operations were issued in February 1993 (NMFS BO on effects of project operations on winter-run Chinook salmon) and March 1995 (USFWS BO on project effects on delta smelt and splittail). Among other things, the BOs contained requirements for Delta inflow, Delta outflow, and export pumping restrictions in order to protect listed species. These requirements imposed substantial constraints on Delta water supply operations. Many were incorporated into the 1995 *Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta* (1995 WQCP), as described under “Water Quality Objectives” later in this section.

The terms of the USFWS and NMFS BOs have become increasingly restrictive over the years. In 2004 the United States Bureau of Reclamation (Reclamation) sought a new BO from USFWS regarding the operation of the CVP and SWP (collectively, Projects). USFWS issued the opinion in 2005, finding that the proposed coordinated operations of the Projects were not likely to jeopardize the continued existence of the delta smelt or result in the destruction or adverse modification of its critical habitat. After judicial review, the 2005 BO was vacated and USFWS was ordered to prepare a new one. USFWS found that the proposed operations of the Project would result in jeopardy to

the delta smelt and in December 2008 issued a Jeopardy BO which included a Reasonable and Prudent Alternative (RPA) with more protective export restrictions and other actions intended to protect the delta smelt.

Similarly, in 2004 NMFS issued a BO on the effects of the coordinated operation of the Projects on salmonids, green sturgeon and Southern Resident killer whales and found that the proposed operations of the Projects were not likely to jeopardize the continued existence of the listed species or result in the destruction or adverse modification of their critical habitat. After judicial review, the 2004 BO was also vacated and NMFS was ordered to prepare a new one. In June 2009, NMFS issued a new Jeopardy BO covering effects on winter-run and spring-run Chinook salmon, steelhead, green sturgeon, and killer whales. Like the 2008 smelt BO, the salmon BO included an RPA with more protective export restrictions and other actions intended to protect listed species.

The USFWS BO includes requirements on operations in all but 2 months of the year. The BO calls for “adaptively managed” (adjusted as necessary based on the results of monitoring) flow restrictions in the Delta intended to protect delta smelt at various life stages. USFWS determines the required target flow, with the reductions accomplished primarily by reducing SWP and CVP exports. Because this flow restriction is determined based on fish location and decisions by USFWS staff, predicting the flow restriction and corresponding effects on export pumping with any great certainty poses a challenge. The USFWS BO also includes an additional salinity requirement in the Delta for September and October in wet and above-normal water years, calling for increased releases from SWP and CVP reservoirs to reduce salinity. Among other provisions included in the NMFS BO, limits on total Delta exports have been established for the months of April and May. These limits are mandated for all but extremely wet years.

The 2008 and 2009 BOs were issued shortly before and shortly after the Governor proclaimed a statewide water shortage state of emergency in February 2009, amid the threat of a third consecutive dry year. NMFS calculated that implementing its BO would reduce SWP and CVP Delta exports by a combined 5% to 7%, but DWR’s initial estimates showed an impact on exports closer to 10% in average years, combined with the effects of pumping restrictions imposed by BOs to protect delta smelt and other species. Both the 2008 USFWS and 2009 NMFS BOs were challenged in federal court on various grounds, including the failure by the services to use the best available science in the development of the BOs. U.S. District Judge Oliver Wanger found both BOs were not legally sufficient and remanded them to the agencies for further review and analysis. Both decisions were appealed to the Ninth Circuit, and in two separate decisions (March 2014 for the USFWS BO and December 2014 for the NMFS BO) the Ninth Circuit reversed in part and affirmed in part Judge Wanger’s rulings, finding the BOs complied with the ESA and upholding them in their entirety. As a result, the operational rules specified in the 2008 and 2009 BOs continue to be legally required and are the rules used in the analyses presented in Section 6 of this report.

The California Department of Fish and Wildlife (DFW) issued consistency determinations for both BOs under Section 2080.1 of the California Fish and Wildlife Code. The consistency determinations stated that the USFWS BO and the NMFS BO

would be consistent with the California Endangered Species Act (CESA). Thus, DFW allowed incidental take of species listed under both the federal ESA and CESA to occur during SWP and CVP operations without requiring DWR or the Reclamation to obtain a separate State-issued permit.

Delta Inflows

Delta inflows vary considerably from season to season, and from year to year. For example, in an above-normal year, nearly 85% of the total Delta inflow comes from the Sacramento River, more than 10% comes from the San Joaquin River, and the rest comes from the three eastside streams (the Mokelumne, Cosumnes, and Calaveras rivers).

The type of water year is also an important factor affecting the volume of Delta inflows. When hydrology is analyzed, water years are designated by DWR as “wet” (W), “above normal” (AN), “below normal” (BN), “dry” (D), or “critical” (C). All other factors (such as upstream level of development) being equal, much less water will flow into the Delta during a dry or critical water year (that is, during a drought) than during a wet or above-normal water year. Fluctuations in inflows are a substantial overall concern for the Delta, and a specific concern for the SWP; such fluctuations affect Delta water quality and fish habitat, which in turn trigger regulatory requirements that constrain SWP Delta pumping.

Delta inflows will also vary by time of year as the amount of precipitation varies by season. About 80% of annual precipitation occurs between November and March, and very little rain typically falls from June through September. Upstream reservoirs regulate this variability by reducing flood flows during the rainy season, and storing water to be released later in the year to meet water demands and flow and water quality requirements.

Water Quality Objectives

Because the Delta is an estuary, salinity is a particular concern. In the 1995 WQCP, the State Water Board set water quality objectives to protect beneficial uses of water in the Delta and Suisun Bay. The objectives must be met by the SWP (and federal CVP), as specified in the water right permits issued to DWR (and the U.S. Bureau of Reclamation). Those objectives—minimum Delta outflows, limits on SWP and CVP Delta exports, and maximum allowable salinity levels—are enforced through the provisions of the State Water Board's Water Right Decision 1641 (D-1641), issued in December 1999 and updated in March 2000.

DWR and Reclamation must monitor the effects of diversions and SWP and CVP operations to ensure compliance with existing water quality standards.

Among the objectives established in the 1995 WQCP and D-1641 are the “X2” objectives. X2 is defined as the distance in kilometers from Golden Gate

where salinity concentration in the Delta is 2 parts per thousand. The location of X2 is used as a surrogate measure of Delta ecosystem health.

D-1641 mandates the X2 objectives so that the State Water Board can regulate the location of the Delta estuary's salinity gradient during the 5-month period of February–June.

For the X2 objective to be achieved, the X2 position must remain downstream of Collinsville in the Delta for the entire 5-month period, and downstream of other specific locations in the Delta on a certain number of days each month from February through June. This means that Delta outflow must be at certain specified levels at certain times, which can limit the amount of water the SWP may pump at those times at its Harvey O. Banks Pumping Plant in the Delta.

Because of the relationship between seawater intrusion and interior Delta water quality, meeting the X2 objective also improves water quality at Delta drinking water intakes; however, meeting the X2 objectives can require a relatively large volume of water for outflow during dry months that follow months with large storms.

The 1995 WQCP and D-1641 also established an export/inflow (E/I) ratio. The E/I ratio is designed to provide protection for the fish and wildlife beneficial uses in the Bay Delta estuary. The E/I ratio limits the fraction of Delta inflows that are exported. When other restrictions are not controlling, Delta exports are limited to 35% of total Delta inflow from February through June and 65% of inflow from July through January.

Section 3

Ongoing Environmental and Policy Planning Efforts

It is hard to overstate the Delta's importance to California's economy and natural heritage. The Delta supplies a large share of the water used in the state. California would not be the same without that water — hundreds of billions of dollars of economic activity depend upon it. Southern California, with half of the state's population, gets almost a quarter of its average water supply from the Delta; Kern County, which produces nearly \$3 billion annually in grapes, almonds, pistachios, milk, citrus and carrots, depends on the Delta for about a fifth of its irrigation supply; the west side of the San Joaquin Valley also produces billions of dollars' worth of food and depends on the Delta for about three-quarters of its irrigation supply; and the San Francisco Bay Area, including the innovation hub of Silicon Valley, takes about half of its water supply from the Delta and its tributaries.

At the same time, the hundreds of miles of river channels that crisscross the Delta's farmed islands provide a migratory pathway for Chinook salmon, which support an important West Coast fishing industry. Other native fish species depend upon the complex mix of fresh and salt water in the Delta estuary. Multiple stressors have impaired the ecological functions of the Delta, and concerns have been growing over the ability to balance the many needs of both people and the ecosystem.

In order to respond to these concerns considerable effort by government agencies and California water community as a whole has been spent during the past several decades to study ways that the problems in the Delta can be addressed, and the more recent attention to the effects of climate change has helped the water community to realize the urgency of addressing these problems. The essential part of all these efforts has been to find a comprehensive solution that brings various, sometimes competing, interests together in a coordinated and concerted set of actions. The Delta Plan and the Bay Delta Conservation Plan (BDCP) are two large-scale plans that are in development. Both plans could affect SWP water delivery capability in different ways, and at different scales.

Delta Plan

After years of concern about the Delta amid rising water demand and habitat degradation, the Delta Stewardship Council was created in legislation to achieve State-mandated coequal goals for the Delta. As specified in Section 85054 of the California Water Code:

“Coequal goals” means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place.

The final Delta Plan was adopted by the Council on May 16, 2013. The Delta Plan contains a set of 14 regulatory policies that will be enforced by the Delta Stewardship Council's appellate authority and oversight. The Delta Plan also contains 73 recommendations, which are non-regulatory but call out actions essential to achieving the coequal goals. The State Office of Administrative Law (OAL) approved the 14 regulations to implement the Delta Plan, which became effective with legally-enforceable regulations on September 1, 2013.

The 14 regulatory policies approved by the OAL include:

- Requiring those who use water from the Delta to certify in their water management plans that they are implementing all feasible efforts to use water efficiently and are developing additional local and regional water supplies;
- Reserving six high-priority areas for habitat restoration;
- Protecting agricultural land by requiring developers to locate new residential, commercial, or industrial development in areas planned for urban use;
- Requiring state and local agencies to locate, when feasible, water management facilities, ecosystem projects, and flood management infrastructure in ways that would reduce or avoid conflicts with agriculture and other existing planned uses; and requiring those agencies to consider locating the facilities on public land before using private land;
- Prohibiting encroachment on floodways and floodplains;
- Requiring developers of new residential subdivisions to include a level of flood protection that anticipates sea levels rising due to climate change; and
- Setting priorities for State investment in Delta flood levees.

Among the 73 recommendations in the Delta Plan are:

- Updating statewide water-use efficiency goals, groundwater management plans for areas using Delta water, streamlining water transfer procedures and developing a statewide system for reporting how much water is used;
- Having the State Water Resources Control Board update water quality objectives for the Sacramento and San Joaquin Rivers, controlling or reducing other Delta stressors such as contaminants and invasive species, expanding floodplains and riparian habitats and locating habitat restoration to accommodate sea-level rise;
- Encouraging agritourism, wildlife friendly farming practices, and recreational opportunities in the Delta; and

- Creating a Delta Flood Risk Management District to provide adequate funding for flood control and emergency preparedness.

In 2014, the Delta Stewardship Council launched the Delta Levees Investment Strategy (DLIS) that will combine economics, engineering, and decision-making techniques to identify funding priorities and assemble a comprehensive investment strategy for the Delta levees.

This investment strategy will be developed in collaboration with state agencies, local reclamation districts, Delta landowners and businesses, and other important stakeholders. It will be based on the best available data, research, and lessons learned from other state and local programs and planning efforts.

Bay Delta Conservation Plan (BDCP)

The Bay Delta Conservation Plan (BDCP) is a comprehensive plan prepared by a group of local water agencies, environmental and conservation organizations, State and federal agencies, and other interest groups to address a wide array of challenges that the water community in California has been facing for decades in the Sacramento-San Joaquin Delta.

The BDCP is being developed in compliance with the Federal Endangered Species Act (ESA) and the California Natural Communities Conservation Planning Act (NCCPA). When complete, the BDCP will provide the basis for the issuance of endangered species permits for the operation of the state and federal water projects. In the most basic sense, the BDCP provides a regulatory vehicle for project proponents to agree to implement a suite of habitat restoration measures, other stressor reduction activities, and water operations criteria in return for regulatory agency approval of the necessary long-term permits for the various projects and water operations (covered activities) to proceed. The heart of the BDCP is a long-term conservation strategy that sets forth actions needed for a healthy Delta.

The BDCP approach to addressing the Delta's challenges reflects a significant departure from the species-by-species approach utilized in previous efforts to manage Delta-specific species and habitats. Instead, the BDCP seeks to improve the health of the ecological system as a whole. Each conservation measure plays a part in an interconnected web of conservation activities designed to improve the health of natural communities and, in so doing, improve the overall health of the Delta ecosystem.

The BDCP attempts to balance contributions to the conservation of species in a way that is feasible given the variety of important uses in the Delta including flood protection, agriculture, and recreation, to name a few. Implementation of the Plan will occur over a 50-year time frame by a number of agencies and organizations with specific roles and responsibilities as prescribed by the Plan. A major part of implementation will be monitoring conservation measures to evaluate effectiveness, and revising actions through the adaptive management decision process.

The Plan, which has been in development since 2006, is undergoing intensive environmental review in the form of a state Environmental Impact Report and federal Environmental Impact Statement (EIR/S) to evaluate the impact of the Plan on all aspects of the environment, including the human environment, and identify alternatives and potential mitigation actions.

The draft BDCP and its associated EIR/S were released for public review in late 2013. Public comments were received until mid-2014. Partially-recirculated public draft documents are scheduled to be released in mid-2015. The reports are targeted to be final in 2016, after which a decision to proceed with the program would be made.

Section 4

Delta Levee Failure and the Delta Risk Management Strategy

The fragile Delta faces a multitude of risks that could affect millions of Californians. Foremost among those risks, as they could affect the SWP's water delivery capability, are the potential for levee failure and the ensuing flooding and water quality issues.

The Delta Risk Management Strategy (DRMS) was initiated in response to Assembly Bill 1200 (2005), which directed DWR to use 50-, 100-, and 200-year projections to evaluate the potential impacts on Delta water supplies associated with continued land subsidence, earthquakes, floods, and climate change. The discussions below describe DRMS Phase 1, which evaluated the risks, and DRMS Phase 2, which is proposing various solutions. Also discussed are other efforts currently being undertaken by DWR and other agencies to reduce risks to the Delta, enhance emergency response capabilities, and reduce the risk of interruption of Delta water exports by the SWP and CVP.

Effects of Emergencies on Water Supplies: Delta Risk Management Strategy (DRMS), Phase 1

Phase 1 of the DRMS, completed in 2008, assessed the performance of Delta and Suisun Marsh levees under various stressors and hazards and evaluated the consequences of levee failures to California as a whole.

The Delta is protected by levees built about 150 years ago. The levees are vulnerable to failure because most original levees were simply built with soils dredged from nearby channels, and were never engineered. Most islands in the Delta have flooded at least once over the past 100 years. For example, on June 3, 2004, a huge dry-weather levee failure occurred without warning on Upper Jones Tract in the south Delta, inundating 12,000 acres of farmland with about 160,000 acre-feet of water. Because many Delta islands are below sea level, deep and prolonged flooding could occur during a levee failure event, which could disrupt the quality and use of Delta water.

Levee failure can result from the combination of high river inflows, high tide, and high winds; however, levees can also fail in fair weather—even in the absence of a flood or seismic event—in a so-called “sunny day event.” Damage caused by rodents, piping (in which a pipe-like opening develops below the base of the levee), or foundation movement could cause sunny-day levee breaches.

A breach of one or more levees and island flooding may affect Delta water quality and SWP operations. Depending on the hydrology and the size and locations of the breaches and flooded islands, a large amount of salt water may be pulled into the interior Delta from Suisun and San Pablo bays. When islands are flooded, DWR may

need to drastically decrease or even cease SWP Delta exports to evaluate the distribution of salinity in the Delta and avoid drawing saltier water toward the pumps.

An earthquake could also put Delta levees, and thus SWP water supplies, at risk. In 2008, the 2007 Working Group on California Earthquake Probabilities estimated a probability of 63% that a magnitude 6.7 or greater earthquake would strike the San Francisco Bay Area in the next 30 years. An earthquake could severely damage Delta levees, causing islands to flood with salty water. The locations most likely to be affected by an earthquake are the west and southwest portions of the Delta because these areas are closer to potential earthquake sources. Flooding of the west and southwest Delta is also more likely to interfere with conveyance of freshwater to export pumps.

Modeling of the effects of earthquakes on Delta islands was conducted by DWR for the DRMS Phase 1 report. Described in the *California Water Plan Update 2009*, the assessment found a 40% probability that a major earthquake occurring between 2030 and 2050 would cause 27 or more islands to flood at the same time. If 20 islands were flooded as a result of a major earthquake, the export of freshwater from the Delta could be interrupted by about a year and a half. Water supply losses of up to 8 million acre-feet would be incurred by SWP (and CVP) contractors and local water districts.

Managing and Reducing Risks: Delta Risk Management Strategy (DRMS), Phase 2

The Phase 2 report for the DRMS, issued in June 2011, evaluates alternatives to reduce the risk to the Delta and the state from adverse consequences of levee failure. “Building blocks” (individual improvements or projects, such as improving levees or raising highways) and trial scenarios (various combinations of building blocks) were developed for the DRMS Phase 2 report. The building blocks fall into three main categories:

- Conveyance improvements/
flood risk reduction and life safety,
- Infrastructure risk reduction, and
- Environmental risk mitigation.

The first of these categories is most relevant to the SWP in terms of reducing the risk of disruption of SWP Delta exports, but the environmental risk mitigation category includes a building block calling for reduction of water exports from the Delta.

Four trial scenarios were developed to represent a range of possible risk reduction strategies:

- Trial Scenario 1—Improved Levees: Improve the reliability of Delta levees against flood-induced failures by providing up to 100-year flood protection.

- Trial Scenario 2—Armored Pathway (Through-Delta Conveyance): Improve the reliability of water conveyance by creating a route through the Delta that has high reliability and the ability to minimize saltwater intrusion into the south Delta.
- Trial Scenario 3—Isolated Conveyance Facility: Provide high reliability for conveyance of export water by building an isolated conveyance facility on the east side of the Delta.
- Trial Scenario 4—Dual Conveyance: Improve reliability and flexibility for conveyance of export water by constructing an isolated conveyance facility and a through-Delta conveyance. (This scenario would be much like a combination of Trial Scenarios 2 and 3.)

The findings of the DRMS Phase 2 report on these scenarios, as they apply to seismic risk and potential for disruption of SWP Delta exports, are as follows:

- Trial Scenario 1 (Improved Levees) would not reduce the risk of potential water export interruptions, nor would it change the seismic risk of most levees.
- Trial Scenario 2 (Armored Pathway [Through-Delta Conveyance]) would have the joint benefit of reducing the likelihood of levee failures from flood events and earthquakes and of significantly reducing the likelihood of export disruptions.
- The effects of Trial Scenario 3 (Isolated Conveyance) would be similar to those for the Armored Pathway scenario, but Trial Scenario 3 would not reduce the seismic risk of levee failure on islands that are not part of the isolated conveyance facility.
- Trial Scenario 4 (Dual Conveyance) would avoid the vulnerability of water exports associated with Delta levee vulnerability and would offer flexibility in water exports from the Delta and/or the isolated conveyance facility. However, seismic risk would not be reduced on islands not part of the export conveyance system or infrastructure pathway.

As noted in the discussion of the “enhanced emergency preparedness/response” building block in the DRMS Phase 2 report, analyses on resuming water exports after a levee failure were conducted by the Metropolitan Water District of Southern California, an SWP contractor. The studies found that a promising way to resume water exports would be to place structural barriers at selected channel locations in the Delta and complete strategic levee repairs, thus isolating an emergency freshwater conveyance “pathway” through channels that may be surrounded by islands flooded with saline water.

The DRMS study was the first comprehensive risk-based assessment of Delta levee failure and potential consequences to the State. Since the completion of the DRMS report several projects funded under the Delta Knowledge Improvement Program (DKIP) have been completed to fill the data gaps identified in DRMS. A goal of the DKIP is to complete bathymetry surveys of the entire Delta. Approximately 20% of the Delta has been surveyed thus far. Major on-going activities being funded by DKIP

include an economic study to assist the Delta Stewardship Council develop a comprehensive investment strategy for the Delta levees, a feasibility study to assist the Delta Protection Commission make recommendations on how to implement a Delta Flood Risk Management Assessment District, an investigation to determine how Delta levees on peat soils respond under seismic loading and development of potential designs of setback levees in the Delta to meet stability requirements while also incorporating desired habitat features.

Section 5

State Water Project Historical Delivery Capability (2005-2014)

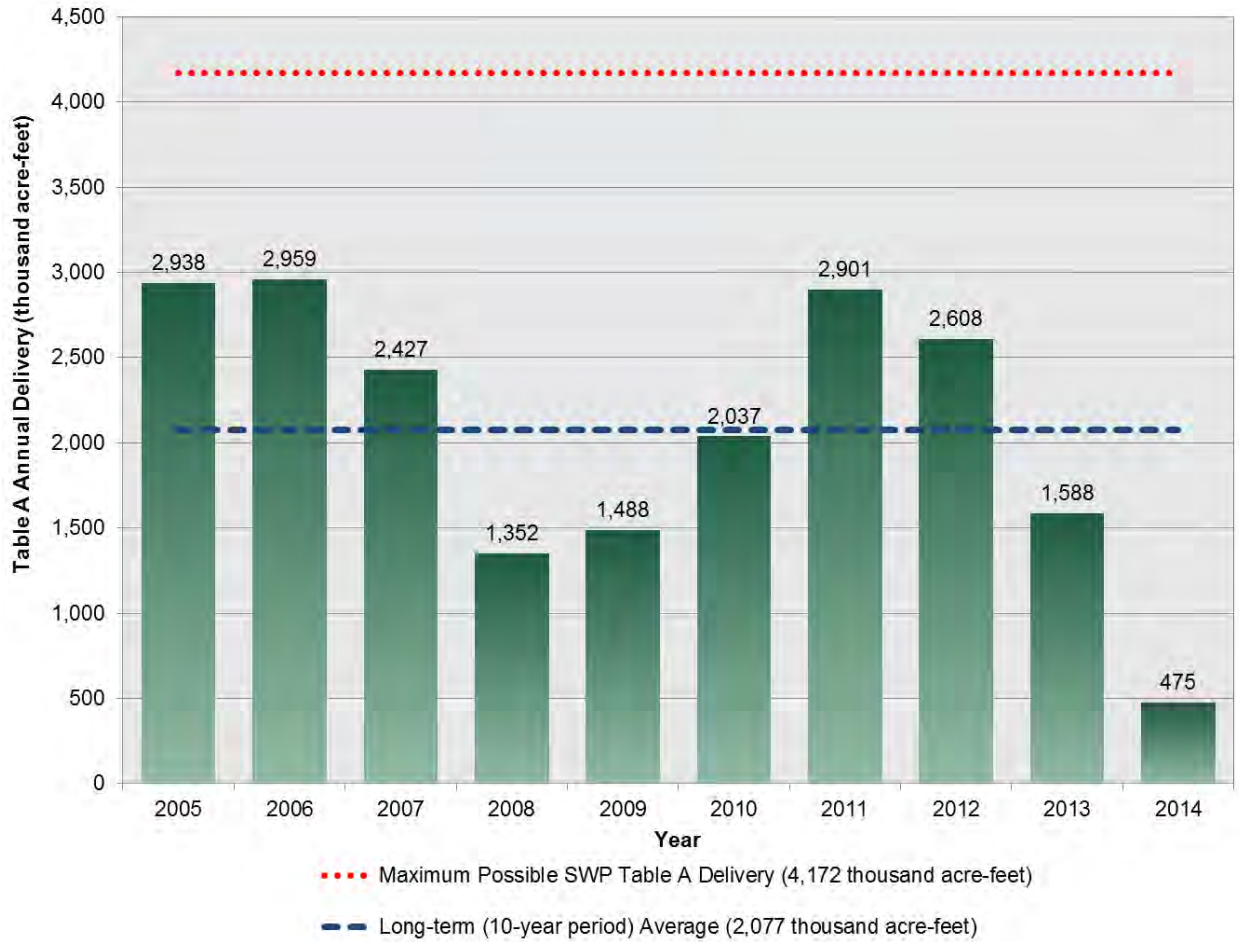
Section 7 of this report includes tables listing annual historical deliveries by various water classifications for each SWP contractor for 2005–2014.

Table 5-1 lists the maximum annual SWP Table A water delivery amounts for SWP Contractors. Figure 5-1 shows that deliveries of SWP Table A water for 2005–2014 range from an annual minimum of 475 taf to a maximum of 2,959 taf, with an average of 2,077 taf. Historical deliveries of SWP Table A water over this 10-year period are less than the maximum of 4,172 taf/year.

Total historical SWP deliveries, including Table A, Article 21, turnback pool, and carryover water, range from 3,707 to 477 taf/ year, with an average of 2,312 taf/year for the period of 2005–2014 (Figure 5-2).

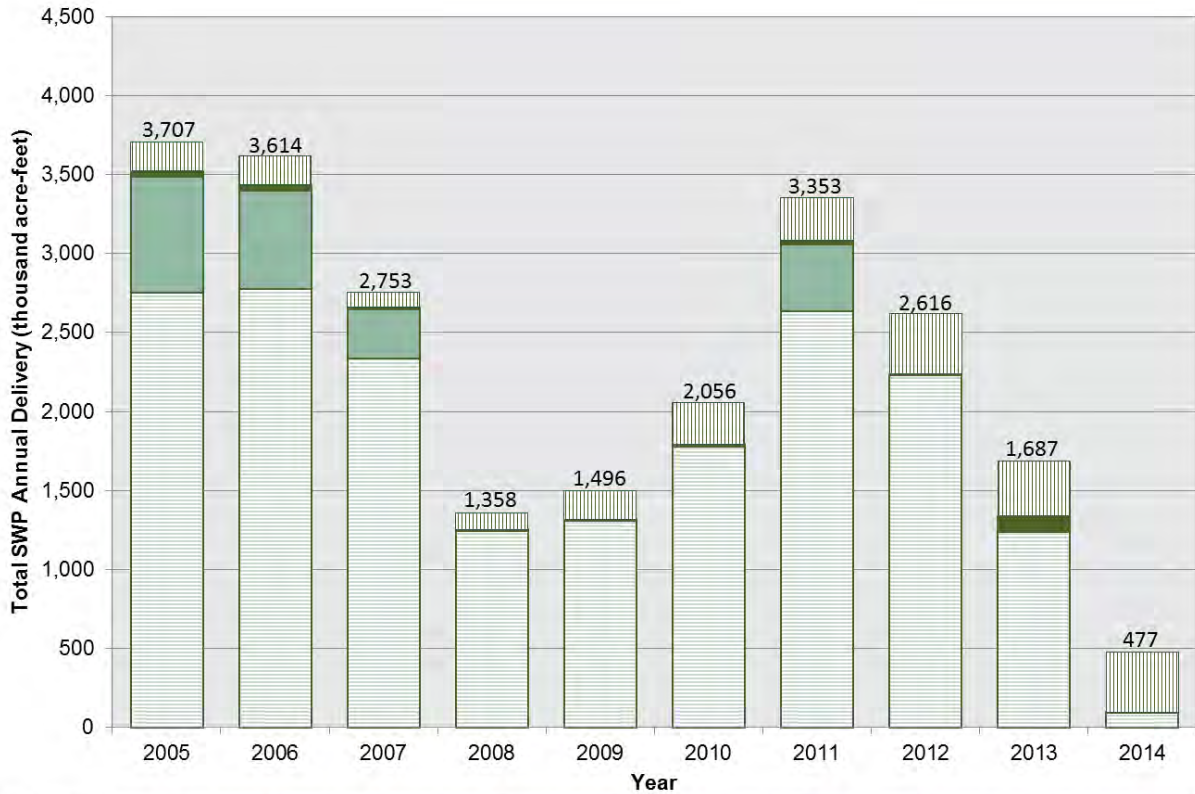
Table 5-1. Maximum Annual SWP Table A Water Delivery Amounts for SWP Contractors

Contractor	Maximum Table A Delivery Amounts (acre-feet)
Feather River Area Contractors	
Butte County	27,500
Yuba City	9,600
Plumas County Flood Control and Water Conservation District	2,700
Subtotal	39,800
North Bay Area Contractors	
Napa County Flood Control and Water Conservation District	29,025
Solano County Water Agency	47,506
Subtotal	76,531
South Bay Area Contractors	
Alameda County Flood Control and Water Conservation District, Zone 7	80,619
Alameda County Water District	42,000
Santa Clara Valley Water District	100,000
Subtotal	222,619
San Joaquin Valley Area Contractors	
Dudley Ridge Water District	50,343
Empire West Side Irrigation District	2,000
Kern County Water Agency	982,730
Kings County	9,305
Oak Flat Water District	5,700
Tulare Lake Basin Water Storage District	88,922
Subtotal	1,139,000
Central Coastal Area Contractors	
San Luis Obispo County Flood Control and Water Conservation District	25,000
Santa Barbara County Flood Control and Water Conservation District	45,486
Subtotal	70,486
Southern California Area Contractors	
Antelope Valley–East Kern Water Agency	141,400
Castaic Lake Water Agency	95,200
Coachella Valley Water District	138,350
Crestline–Lake Arrowhead Water Agency	5,800
Desert Water Agency	55,750
Littlerock Creek Irrigation District	2,300
Metropolitan Water District of Southern California	1,911,500
Mojave Water Agency	82,800
Palmdale Water District	21,300
San Bernardino Valley Municipal Water District	102,600
San Gabriel Valley Municipal Water District	28,800
San Geronimo Pass Water Agency	17,300
Ventura County Watershed Protection District	20,000
Subtotal	2,623,100
TOTAL TABLE A AMOUNTS	4,171,536



Note: The differences in historical deliveries from the State Water Project Delivery Reliability Report 2013 are due to reclassification of the various components of water delivered to SWP contractors

Figure 5-1. Historical Deliveries of SWP Table A Water, 2005–2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Carryover	185	182	95	110	180	264	268	381	351	383
Tumbuck	38	34	16	3	2	11	31	8	99	1
Article 21	731	621	310	3	6	8	421	0	0	1
Table A	2753	2776	2332	1242	1308	1774	2633	2227	1238	92

Note: The differences in historical deliveries from the State Water Project Delivery Reliability Report 2013 are due to reclassification of the various components of water delivered to SWP contractors

Figure 5-2. Total Historical SWP Deliveries, 2005–2014 (by Delivery Type)

Section 6

Existing SWP Water Delivery Capability (2015)

This Section presents estimates of the SWP's existing (2015) water delivery capability. The estimates are presented below, alongside the results obtained from the 2013 Report. Like this 2015 Report, the 2013 Report incorporated the requirements of BOs issued by USFWS and NMFS in December 2008 and June 2009, respectively, on the effects of coordinated operations of the SWP and CVP. These BOs are discussed in detail in Section 2, "Regulatory Restrictions on SWP Delta Exports."

The discussions of SWP water delivery capability in this Section presents the results of DWR's updated modeling of the SWP's water delivery capability. A tabular summary of the modeling results is presented in Appendix B of this report, which is available online at <http://baydeltaoffice.water.ca.gov/>.

Appendix B also contains annual delivery probability curves (i.e., exceedance plots) to graphically show the estimated percentage of years in which a given annual delivery is equaled or exceeded.

Hydrologic Sequence

SWP delivery amounts are estimated in this 2015 Report for existing conditions using computer modeling that incorporates the historic range of hydrologic conditions (i.e., precipitation and runoff) that occurred from water years 1922 through 2003. The historic hydrologic conditions are adjusted to account for land-use changes (i.e., the current level of development) and upstream flow regulations that characterize 2015. By using this 82-year historical flow record, the delivery estimates modeled for existing conditions reflect a reasonable range of potential hydrologic conditions from wet years to critically dry years.

Existing Demand for Delta Water

Demand levels for the SWP water users in this report are derived from historical data and information from the SWP contractors themselves. The amount of water that SWP contractors request each year (i.e., demand) is related to:

- The magnitude and type of water demands,
- The extent of water conservation measures,
- Local weather patterns, and
- Water costs.

The existing level of development (i.e., the level of water use in the source areas from which the water supply originates) is based on recent land uses, and is assumed to be representative of existing conditions for the purposes of this 2015 Report.

SWP Table A Water Demands

The current combined maximum Table A amount is 4,172 taf/year. See Table 5-1 in Section 5, “State Water Project Historical Delivery Capability (2005-2014). Of the combined maximum Table A amount, 4,132 taf/year is the SWP’s maximum Table A water available for delivery from the Delta.

The estimated demands by SWP contractors for deliveries of Table A water from the Delta under existing conditions is assumed to be the maximum SWP Table A delivery amount for the 2015 Report, similar to the 2013 Report (Table 6-1). Due to the fact that SWP contractors have been requesting the full amount in recent years, the 2013, and the 2015 Reports more accurately reflect the trend in demand.

	2013 Report	2015 Report
Average	4,132	4,132
Maximum	4,132	4,132
Minimum	4,132	4,132

SWP Article 21 Water Demands

Under Article 21 of the SWP’s long-term water supply contracts, contractors may receive additional water deliveries only under the following specific conditions:

- Such deliveries do not interfere with SWP Table A allocations and SWP operations;
- Excess water is available in the Delta;
- Capacity is not being used for SWP purposes or scheduled SWP deliveries; and
- Contractors can use the SWP Article 21 water directly or can store it in their own system (i.e., the water cannot be stored in the SWP system).

The demand for SWP Article 21 water by SWP contractors is assumed to vary depending on the month and weather conditions (i.e., amounts of precipitation and runoff). For the purposes of this discussion of SWP Article 21 water demands, a Kern wet year is defined as a year when the annual Kern River flow is projected to be greater than 1,500 taf. Kern River inflows are important because they are a major component of

the local water supply for Kern County Water Agency (KCWA), which is the second largest SWP contractor and possesses significant local groundwater recharge capability. During Kern wet years, KCWA uses more Kern River flows to recharge its groundwater storage and reduce its demand for Article 21 water.

As shown in Figure 6-1, existing demands for SWP Article 21 water estimated for this 2015 Report are assumed to be high during the spring and late fall in non–Kern wet years (214 taf/month) because the contractors cannot rely as heavily on the Kern River flows to recharge their groundwater storage. Demand for Article 21 water is also high during the winter months of December through March in all year types (202 taf in Kern wet years and 414 taf in non–Kern wet years). Demands are assumed to be very low (2 taf/month) from April through November of Kern wet years (because high Kern River flows provide groundwater recharge water) and from July through October of Kern dry years.

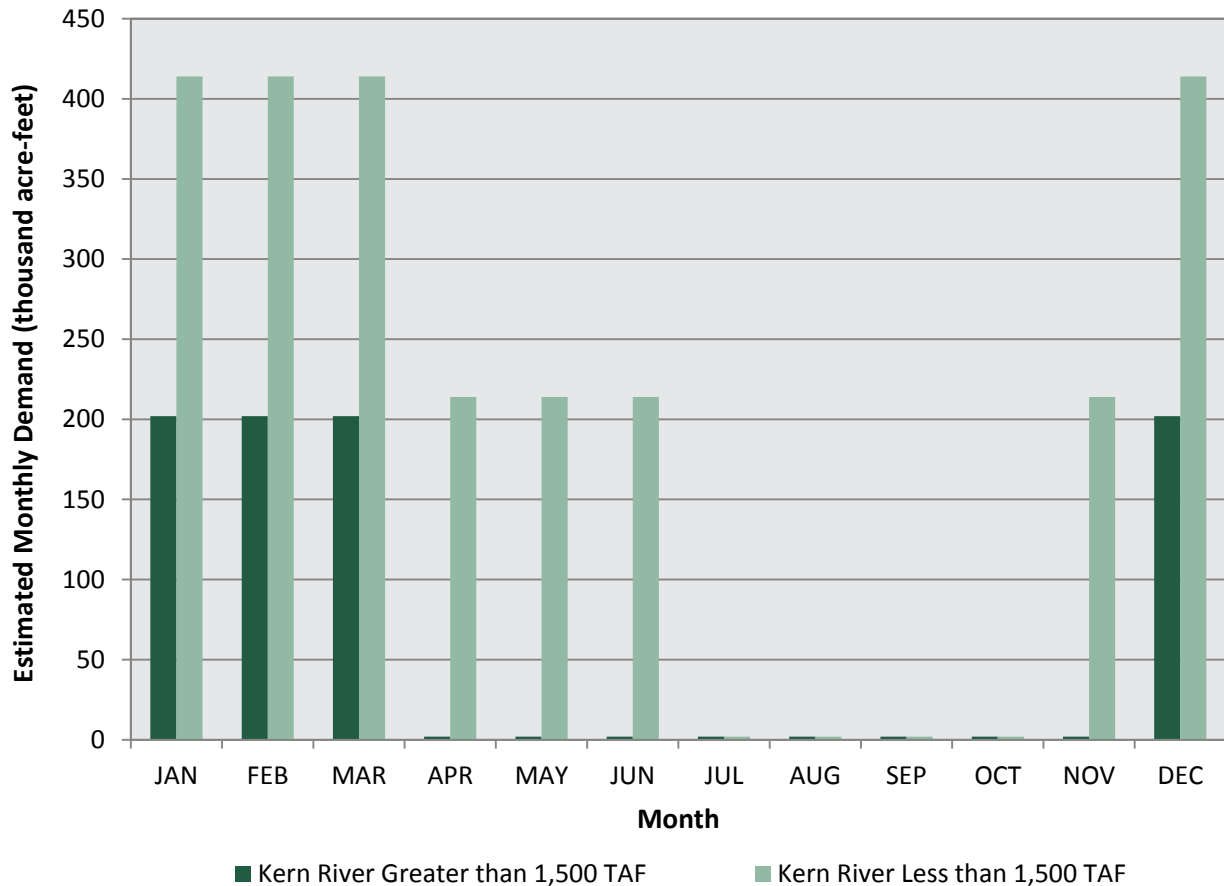
These demand patterns for SWP Article 21 water are identical to what was presented in the 2013 Report for existing conditions.

Estimates of SWP Table A Water Deliveries

Table 6-2 presents the annual average, maximum, and minimum estimates of SWP Table A deliveries from the Delta for existing conditions, as calculated for the 2013 and 2015 Reports. The average, maximum, and minimum Table A deliveries are relatively close in the 2013 and 2015 Reports.

Table 6-2. Comparison of Estimated Average, Maximum, and Minimum Deliveries of SWP Table A Water (Existing Conditions, in taf/year)		
	2013 Report	2015 Report
Average	2,553	2,550
Maximum	3,996	4,055
Minimum	495	454

Assumptions about Table A and Article 21 water demands, along with operations for carryover water, have been updated in the model based on discussions with State Water Contractors staff and DWR’s Operations and Control Office.



Note: Values shown are the maximum amount that can be delivered monthly. However, the actual capability of SWP water contractors to take this amount of SWP Article 21 water is not the sum of these maximum monthly values.

Figure 6-1. SWP Article 21 Demands during Non-Kern Wet Years and Kern Wet Years (Existing Conditions)

Figure 6-2 presents the estimated likelihood of delivery of a given amount of SWP Table A water under the existing conditions scenario, as estimated for both the 2013 and 2015 Reports. This figure shows that there is a 74% likelihood (79% with the 2013 Report) that more than 2,000 taf/year of Table A water will be delivered under the current estimates. The distribution of the delivery ranges has also changed since the 2013 Report. For example, Figure 6-2 shows a shift of Table A deliveries from the 2,500–3,000 taf/year range to the 3,000–3,500 taf/year range.

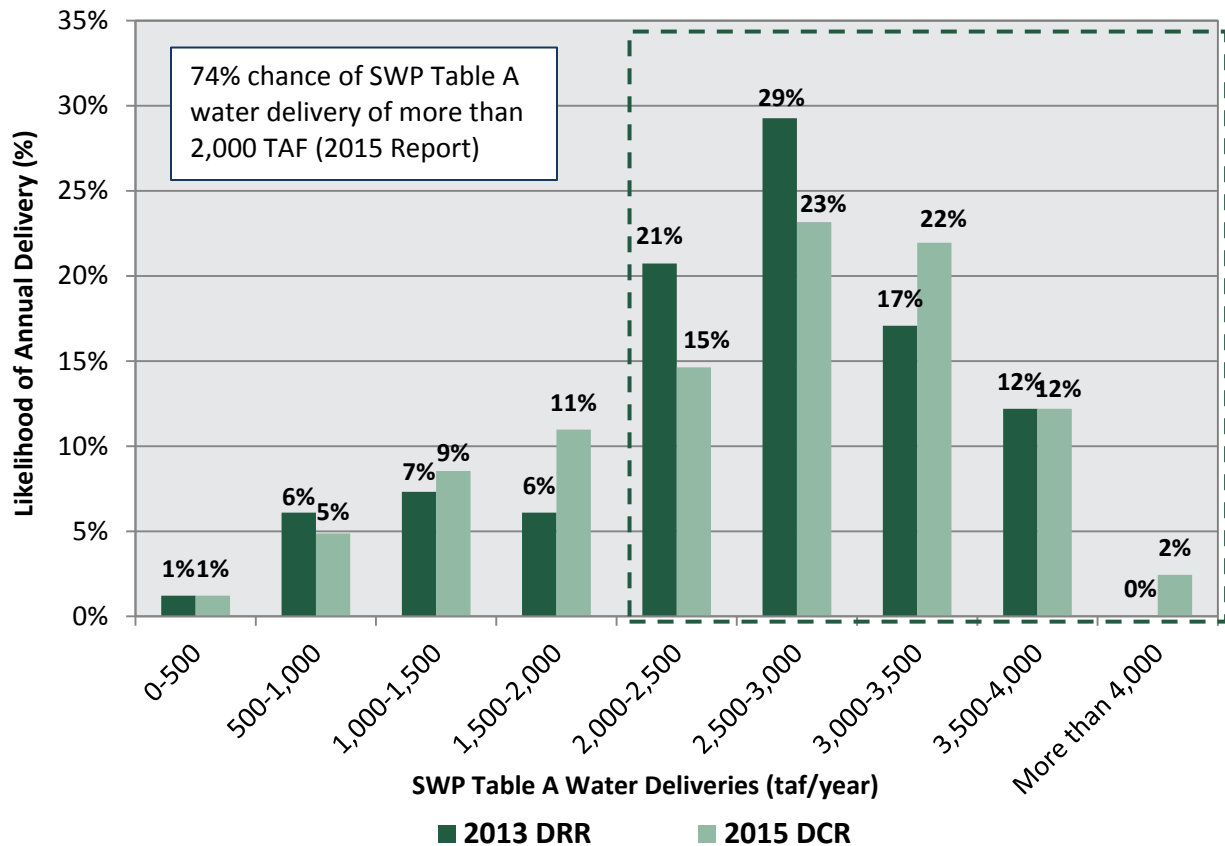


Figure 6-2. Estimated Likelihood of SWP Table A Water Deliveries, by Increments of 500 taf (Existing Conditions)

Wet-Year Deliveries of SWP Table A Water

Table 6-3 and Figure 6-3 present estimates of SWP Table A water deliveries under existing conditions during possible wet conditions and compares them with corresponding delivery estimates calculated for the 2013 Report. Wet periods for 2015 are analyzed using historical precipitation and runoff patterns from 1922–2003 as a reference, while accounting for existing 2015 conditions (e.g., land use, water infrastructure). For reference, the wettest single year on record was 1983.

The results of modeling existing conditions over historical wet years indicate that SWP Table A water deliveries during wet periods can be estimated to range between yearly averages of 4,055 to 3,123 taf.

Table 6-3 shows that the 2015 deliveries of SWP Table A water increased in wet periods (in comparison to the 2013 Report).

Table 6-3. Estimated Average and Wet-Period Deliveries of SWP Table A Water (Existing Conditions, in taf/year) and Percent of Maximum SWP Table A Amount, 4,132 taf/year

	Long-term Average (1921–2003)		Single Wet Year (1983)		Wet Periods							
					2 Years (1982–1983)		4 Years (1980–1983)		6 Years (1978–1983)		10 Years (1978–1987)	
2013 Report	2,553	62%	3,996	97%	3,880	94%	3,501	85%	3,361	81%	3,086	75%
2015 Report	2,550	62%	4,055	98%	3,946	95%	3,558	86%	3,414	83%	3,123	76%

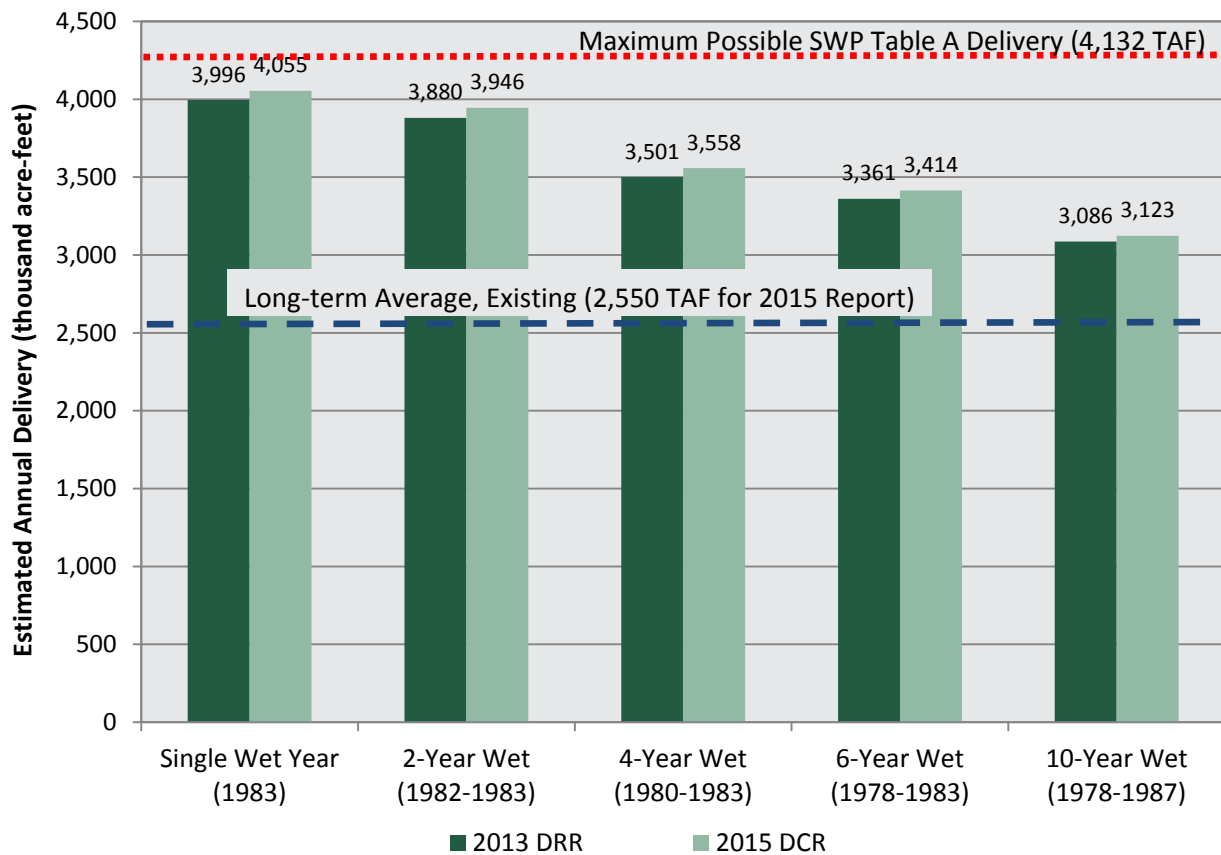


Figure 6-3. Estimated Wet-Period SWP Table A Water Deliveries (Existing Conditions)

Dry-Year Deliveries of SWP Table A Water

Table 6-4 and Figure 6-4 display estimates of existing-conditions deliveries of SWP Table A water during possible drought conditions and compares them with the corresponding delivery estimates calculated for the 2013 Report. Droughts are analyzed using the historical drought-period precipitation and runoff patterns from 1922 through 2003 as a reference, although existing 2015 conditions (e.g., land use, water infrastructure) are also accounted for in the modeling. For reference, the worst multiyear

drought on record was the 1929–1934 drought, although the brief drought of 1976–1977 was more intensely dry.

The results of modeling existing conditions under historical drought scenarios indicate that SWP Table A water deliveries during dry years can be estimated to range between yearly averages of 454 and 1,356 taf.

On average, the dry-period deliveries of Table A water are higher in this 2015 Report than in the 2013 Report because of model refinements (discussed in detail in Appendix B).

Table 6-4. Estimated Average and Dry-Period Deliveries of SWP Table A Water (Existing Conditions, in taf/year) and Percent of Maximum SWP Table A Amount, 4,132 taf/year													
	Long-term Average (1921–2003)		Single Dry Year (1977)		Dry Periods								
	2013 Report	2015 Report	2013 Report	2015 Report	2-Year Drought (1976–1977)		4-Year Drought (1931–1934)		6-Year Drought (1987–1992)		6-Year Drought (1929–1934)		
2013 Report	2,553	2,550	495	454	1,269	1,165	1,263	1,356	1,176	1,182	1,260	1,349	62%
2015 Report	62%	62%	12%	11%	31%	28%	31%	33%	28%	29%	30%	33%	

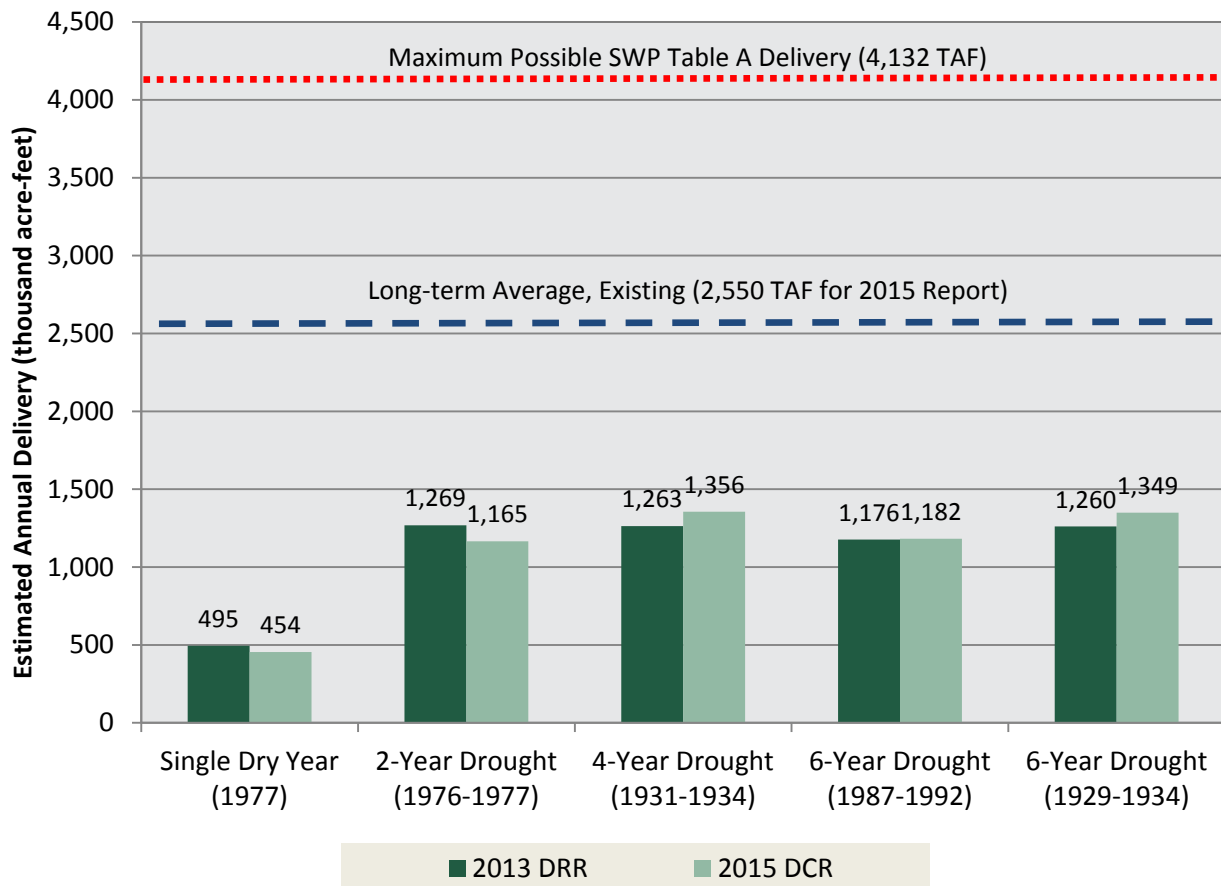


Figure 6-4. Estimated Dry-Period SWP Table A Water Deliveries (Existing Conditions)

Estimates of SWP Article 21 Water Deliveries

SWP water delivery is a combination of deliveries of Table A water and Article 21 water. Some SWP contractors store Article 21 water locally when extra water and capacity are available beyond that needed by normal SWP operations. Deliveries of SWP Article 21 water vary not only by year, but also by month. The estimated range of monthly deliveries of SWP Article 21 water is displayed in Figure 6-5. In May through October, essentially no Article 21 water is estimated to be delivered. In the late fall and winter (November through April), maximum monthly deliveries range from 82 to 339 taf/month.

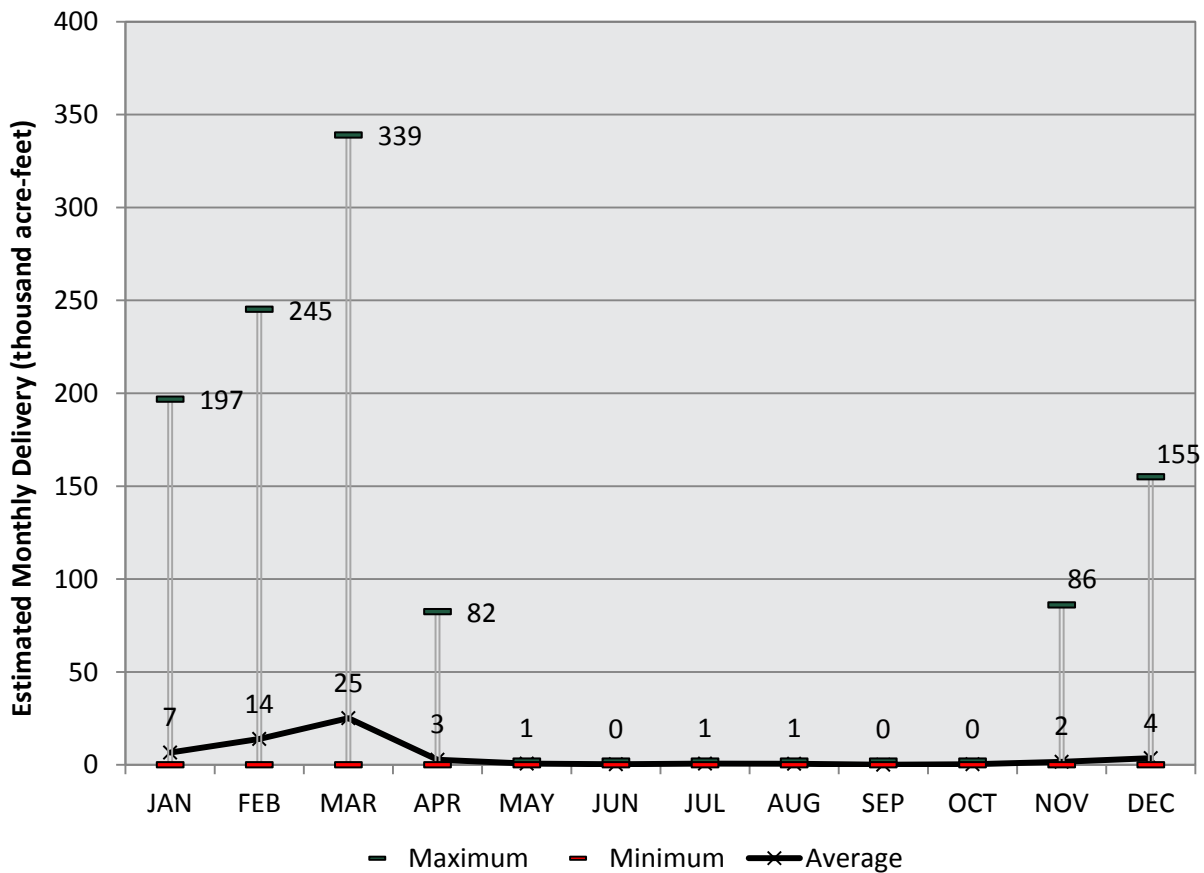


Figure 6-5. Estimated Range of Monthly Deliveries of SWP Article 21 Water (Existing Conditions)

The estimated likelihood that a given amount of SWP Article 21 water will be delivered is presented in Figure 6-6.

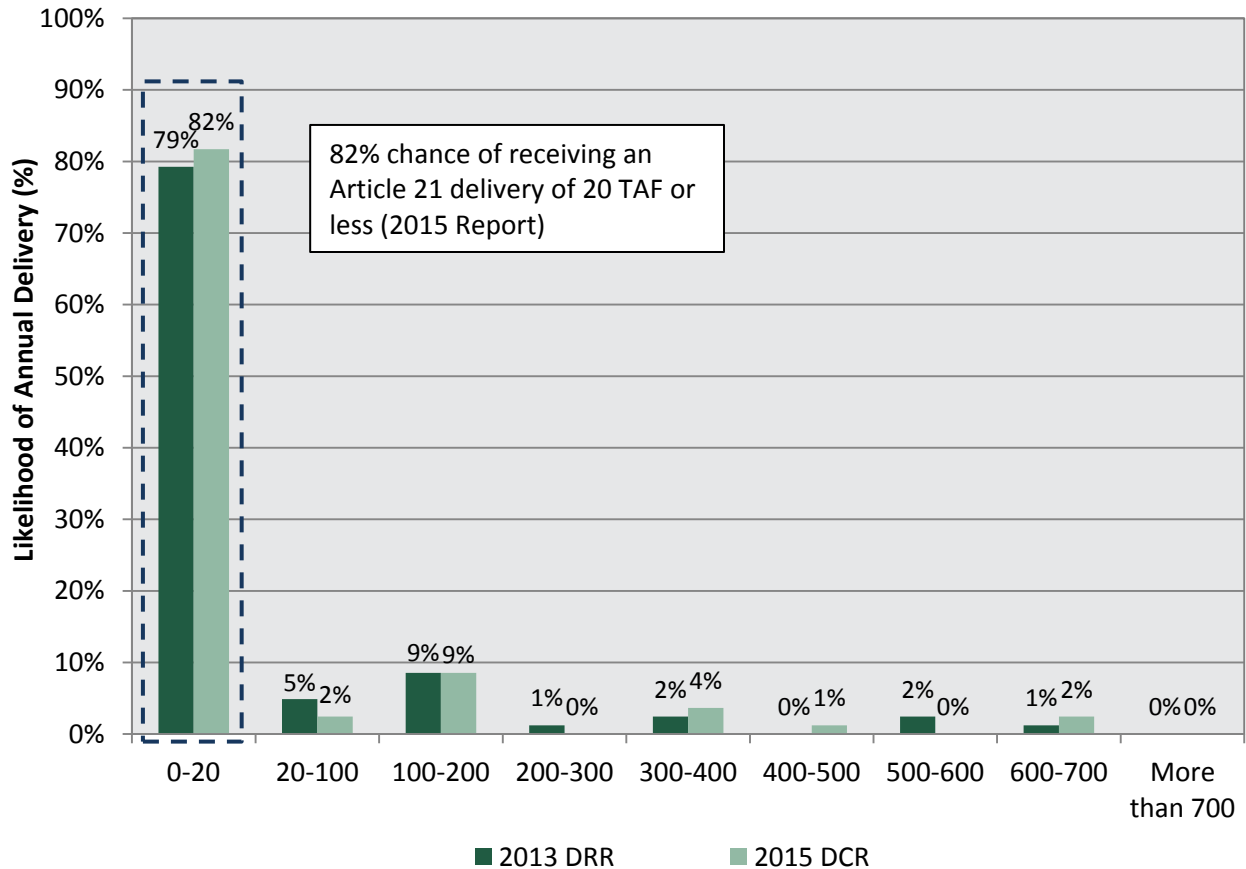


Figure 6-6. Estimated Likelihood of Annual Deliveries of SWP Article 21 Water (Existing Conditions)

Wet-Year Deliveries of SWP Article 21 Water

Table 6-5 shows the estimates of deliveries of SWP Article 21 water during wet periods under existing conditions. Estimated deliveries in wet years are approximately 1.7 to 5.6 times larger than the average existing-conditions delivery of SWP Article 21 water.

In general, the wet-period Article 21 deliveries in this 2015 Report are lower than in the 2013 Report.

	Long-term Average (1921-2003)	Single Wet Year (1983)	Wet Periods			
			2 Years (1982-1983)	4 Years (1980-1983)	6 Years (1978-1983)	10 Years (1978-1987)
2013 Report	58	333	265	196	135	152
2015 Report	56	316	204	134	93	134

Dry-Year Deliveries of SWP Article 21 Water

Although deliveries of SWP Article 21 water are smaller during dry years than during wet ones, opportunities exist to deliver SWP Article 21 water during multiyear drought periods. As modeled, deliveries in dry years are often small (less than 5 taf); however, longer drought periods can include several years that support Article 21 deliveries. Annual average Article 21 estimates for drought periods of 4 and 6 years vary greatly and can approach a significant fraction of the long-term average annual estimate, as shown in Table 6-6.

Table 6-6. Estimated Average and Dry-Period Deliveries of SWP Article 21 Water (Existing Conditions, in taf/year)						
	Long-term Average (1921-2003)	Single Dry Year (1977)	Wet Periods			
			2-Year Drought (1976-1977)	4-Year Drought (1931-1934)	6-Year Drought (1987-1992)	6-Year Drought (1929-1934)
2013 Report	58	10	13	46	11	35
2015 Report	56	8	12	41	13	31

Section 7

Historical SWP Delivery Tables for 2005–2014

The State Water Project (SWP) contracts define several types of SWP water available for delivery to contractors under specific circumstances: Table A water, Article 21 water, turnback pool water, and carryover water. Many SWP contractors frequently use Article 21, turnback pool, and carryover water to increase or decrease the amount of water available to them under SWP Table A.

The Sacramento River Index, previously referred to as the “4 River Index” or “4 Basin Index,” is the sum of the unimpaired runoff of four rivers: the Sacramento River above Bend Bridge near Red Bluff, Feather River inflow to Lake Oroville Reservoir, Yuba River at Smartville, and American River inflow to Folsom Lake. The five water year types used in the Sacramento River Index are as follows:

Sacramento River Index	Water Year Type
1	Wet
2	Above Normal
3	Below Normal
4	Dry
5	Critical

Tables 7-2 through 7-11 list annual historical deliveries by SWP water type for each contractor for 2005 through 2014. Similar delivery tables are presented for years 2003–2012 in the *State Water Project Delivery Reliability Report 2013*. Any differences in values presented in this 2015 report and those in the 2013 report are due to reclassification of deliveries since the production of the 2013 report.

Table 7–2. Historical State Water Project Deliveries, Calendar Year 2005

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre–feet)				Total SWP Deliveries (acre–feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	527	-	-	-	527
	Plumas County FCWCD	-	-	-	-	-
	Yuba City	1,894	-	-	-	1,894
	Subtotal	2,421	-	-	-	2,421
North Bay Area	Napa County FCWCD	5,322	606	1,741	-	7,669
	Solano County WA	24,515	10,421	83	-	35,019
	Subtotal	29,837	11,027	1,824	-	42,688
South Bay Area	Alameda County FCWCD, Zone 7	38,388	-	7,849	275	46,512
	Alameda County WD	36,469	846	6,341	943	44,599
	Santa Clara Valley WD	89,476	6,298	12,133	342	108,249
	Subtotal	164,333	7,144	26,323	1,560	199,360
San Joaquin Valley Area	Dudley Ridge WD	51,609	28,197	821	1,286	81,913
	Empire West Side ID	1,448	1,799	587	-	3,834
	Kern County WA	893,439	453,078	8,985	22,397	1,377,899
	Kings County	8,100	11,504	-	202	19,806
	Oak Flat WD	4,067	-	-	127	4,194
	Tulare Lake Basin WSD	86,604	47,267	3,973	2,158	140,002
	Subtotal	1,045,267	541,845	14,366	26,170	1,627,648
Central Coastal Area	San Luis Obispo County FCWCD	4,006	245	-	-	4,251
	Santa Barbara County FCWCD	22,981	-	208	155	23,344
	Subtotal	26,987	245	208	155	27,595
Southern California Area	Antelope Valley–East Kern WA	57,205	-	2,626	-	59,831
	Castaic Lake WA	54,303	2,451	2,702	-	59,456
	Coachella Valley WD	26,984	-	12,819	2,716	42,519
	Crestline–Lake Arrowhead WA	807	-	-	-	807
	Desert WA	33,168	-	14,799	1,122	49,089
	Little Rock Creek ID	-	-	-	-	-
	Metropolitan WD of Southern California	1,247,183	168,300	106,032	6,530	1,528,045
	Mojave WA	10,360	-	1,201	-	11,561
	Palmdale WD	10,174	-	1,538	-	11,712
	San Bernardino Valley MWD	31,205	56	282	-	31,543
	San Gabriel Valley MWD	10,500	-	-	-	10,500
	San Geronio Pass WA	655	15	-	22	692
	Ventura County WPD	1,665	-	-	-	1,665
Subtotal	1,484,209	170,822	141,999	10,390	1,807,420	
TOTAL SWP DELIVERIES		2,753,054	731,083	184,720	38,275	3,707,132

Table 7-3. Historical State Water Project Deliveries, Calendar Year 2006

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre-feet)				Total SWP Deliveries (acre-feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	468	-	-	-	468
	Plumas County FCWCD	-	-	-	-	-
	Yuba City	4,148	1,194	-	-	5,342
	Subtotal	4,616	1,194	-	-	5,810
North Bay Area	Napa County FCWCD	7,317	300	172	-	7,789
	Solano County WA	12,070	18,195	390	-	30,655
	Subtotal	19,387	18,495	562	-	38,444
South Bay Area	Alameda County FCWCD, Zone 7	50,784	-	2,252	491	53,527
	Alameda County WD	39,570	1,922	1,331	256	43,079
	Santa Clara Valley WD	47,344	26,769	524	-	74,637
	Subtotal	137,698	28,691	4,107	747	171,243
San Joaquin Valley Area	Dudley Ridge WD	55,343	18,429	-	1,068	74,840
	Empire West Side ID	1,500	1,124	658	-	3,282
	Kern County WA	970,689	247,914	5,418	18,610	1,242,631
	Kings County	8,991	366	-	173	9,530
	Oak Flat WD	4,118	-	17	107	4,242
	Tulare Lake Basin WSD	48,361	58,059	-	1,787	108,207
	Subtotal	1,089,002	325,892	6,093	21,745	1,442,732
Central Coastal Area	San Luis Obispo County FCWCD	3,382	827	-	-	4,209
	Santa Barbara County FCWCD	19,255	4,020	-	-	23,275
	Subtotal	22,637	4,847	-	-	27,484
Southern California Area	Antelope Valley-East Kern WA	76,623	-	3,761	-	80,384
	Castaic Lake WA	56,758	2,089	3,905	-	62,752
	Coachella Valley WD	121,100	-	-	-	121,100
	Crestline-Lake Arrowhead WA	641	-	-	-	641
	Desert WA	50,000	-	-	-	50,000
	Littlerock Creek ID	-	-	-	-	-
	Metropolitan WD of Southern California	1,103,538	238,478	158,532	11,638	1,512,186
	Mojave WA	32,496	-	1,518	-	34,014
	Palmdale WD	10,374	1,653	335	130	12,492
	San Bernardino Valley MWD	31,902	-	3,427	-	35,329
	San Gabriel Valley MWD	13,524	-	-	-	13,524
	San Geronio Pass WA	4,278	-	-	-	4,278
	Ventura County WPD	1,850	-	-	-	1,850
	Subtotal	1,503,084	242,220	171,478	11,768	1,928,550
TOTAL SWP DELIVERIES		2,776,424	621,339	182,240	34,260	3,614,263

Table 7-4. Historical State Water Project Deliveries, Calendar Year 2007

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre-feet)				Total SWP Deliveries (acre-feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	720	-	-	-	720
	Plumas County FCWCD	-	-	-	-	-
	Yuba City	2,327	-	-	-	2,327
	Subtotal	3,047	-	-	-	3,047
North Bay Area	Napa County FCWCD	6,362	3,597	998	-	10,957
	Solano County WA	14,892	8,217	1,822	-	24,931
	Subtotal	21,254	11,814	2,820	-	35,888
South Bay Area	Alameda County FCWCD, Zone 7	32,972	912	2,895	378	37,157
	Alameda County WD	16,541	550	2,103	197	19,391
	Santa Clara Valley WD	38,812	4,840	8,161	469	52,282
	Subtotal	88,325	6,302	13,159	1,044	108,830
San Joaquin Valley Area	Dudley Ridge WD	28,457	8,953	2,000	269	39,679
	Empire West Side ID	397	1,172	515	-	2,084
	Kern County WA	592,423	99,861	19,645	4,683	716,612
	Kings County	4,924	474	305	43	5,746
	Oak Flat WD	3,420	41	69	27	3,557
	Tulare Lake Basin WSD	57,272	12,902	16,459	450	87,083
	Subtotal	686,893	123,403	38,993	5,472	854,761
Central Coastal Area	San Luis Obispo County FCWCD	3,752	24	-	-	3,776
	Santa Barbara County FCWCD	24,760	1,070	1,390	-	27,220
	Subtotal	28,512	1,094	1,390	-	30,996
Southern California Area	Antelope Valley-East Kern WA	74,459	-	4,364	-	78,823
	Castaic Lake WA	44,974	-	4,216	-	49,190
	Coachella Valley WD	72,660	-	-	568	73,228
	Crestline-Lake Arrowhead WA	1,768	-	-	-	1,768
	Desert WA	30,000	-	-	234	30,234
	Littlerock Creek ID	1,380	-	-	-	1,380
	Metropolitan WD of Southern California	1,146,900	166,517	28,098	8,962	1,350,477
	Mojave WA	45,372	-	737	-	46,109
	Palmdale WD	12,780	843	985	100	14,708
	San Bernardino Valley MWD	57,116	-	-	-	57,116
	San Gabriel Valley MWD	10,000	-	-	-	10,000
	San Geronio Pass WA	3,935	-	-	-	3,935
	Ventura County WPD	3,000	-	-	-	3,000
	Subtotal	1,504,344	167,360	38,400	9,864	1,719,968
TOTAL SWP DELIVERIES		2,332,375	309,973	94,762	16,380	2,753,490

Table 7-5. Historical State Water Project Deliveries, Calendar Year 2008

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre-feet)				Total SWP Deliveries (acre-feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	9,436	-	-	-	9,436
	Plumas County FCWCD	243	-	-	-	243
	Yuba City	1,923	-	-	-	1,923
	Subtotal	11,602	-	-	-	11,602
North Bay Area	Napa County FCWCD	3,636	1,219	7,363	21	12,239
	Solano County WA	10,436	1,510	12,389	-	24,335
	Subtotal	14,072	2,729	19,752	21	36,574
South Bay Area	Alameda County FCWCD, Zone 7	13,633	-	15,400	-	29,033
	Alameda County WD	4,206	-	8,659	37	12,902
	Santa Clara Valley WD	11,133	-	21,188	88	32,409
	Subtotal	28,972	-	45,247	125	74,344
San Joaquin Valley Area	Dudley Ridge WD	12,260	-	5,949	51	18,260
	Empire West Side ID	-	-	915	-	915
	Kern County WA	271,636	-	6,815	883	279,334
	Kings County	3,187	-	541	8	3,736
	Oak Flat WD	1,929	-	-	5	1,934
	Tulare Lake Basin WSD	32,302	-	281	85	32,668
	Subtotal	321,314	-	14,501	1,032	336,847
Central Coastal Area	San Luis Obispo County FCWCD	8,512	-	-	-	8,512
	Santa Barbara County FCWCD	11,311	-	2,532	40	13,883
	Subtotal	19,823	-	2,532	40	22,395
Southern California Area	Antelope Valley-East Kern WA	31,082	-	10,381	125	41,588
	Castaic Lake WA	18,710	-	12,146	-	30,856
	Coachella Valley WD	42,385	-	-	107	42,492
	Crestline-Lake Arrowhead WA	1,159	-	689	-	1,848
	Desert WA	17,500	-	-	44	17,544
	Littlerock Creek ID	805	-	-	-	805
	Metropolitan WD of Southern California	658,304	-	-	1,689	659,993
	Mojave WA	26,288	-	108	-	26,396
	Palmdale WD	4,226	-	-	19	4,245
	San Bernardino Valley MWD	26,562	-	4,444	-	31,006
	San Gabriel Valley MWD	10,080	-	-	-	10,080
	San Geronio Pass WA	5,419	-	300	-	5,719
	Ventura County WPD	3,798	-	-	-	3,798
Subtotal	846,318	-	28,068	1,984	876,370	
TOTAL SWP DELIVERIES		1,242,101	2,729	110,100	3,202	1,358,132

Table 7-6. Historical State Water Project Deliveries, Calendar Year 2009

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre-feet)				Total SWP Deliveries (acre-feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	10,206	-	-	-	10,206
	Plumas County FCWCD	200	-	-	-	200
	Yuba City	2,114	-	-	-	2,114
	Subtotal	12,520	-	-	-	12,520
North Bay Area	Napa County FCWCD	2,723	1,588	4,475	13	8,799
	Solano County WA	7,118	4,444	3,123	-	14,685
	Subtotal	9,841	6,032	7,598	13	23,484
South Bay Area	Alameda County FCWCD, Zone 7	11,745	-	14,584	-	26,329
	Alameda County WD	5,911	-	10,494	8	16,413
	Santa Clara Valley WD	9,188	-	23,867	54	33,109
	Subtotal	26,844	-	48,945	62	75,851
San Joaquin Valley Area	Dudley Ridge WD	13,185	-	7,810	32	21,027
	Empire West Side ID	1,034	-	-	-	1,034
	Kern County WA	325,426	-	56,367	544	382,337
	Kings County	3,153	-	70	5	3,228
	Oak Flat WD	1,825	-	66	3	1,894
	Tulare Lake Basin WSD	35,160	-	1,271	52	36,483
	Subtotal	379,783	-	65,584	636	446,003
Central Coastal Area	San Luis Obispo County FCWCD	9,723	-	-	-	9,723
	Santa Barbara County FCWCD	4,961	-	4,523	25	9,509
	Subtotal	14,684	-	4,523	25	19,232
Southern California Area	Antelope Valley-East Kern WA	13,499	-	18,408	77	31,984
	Castaic Lake WA	14,858	-	9,529	52	24,439
	Coachella Valley WD	40,845	-	-	66	40,911
	Crestline-Lake Arrowhead WA	1,000	-	893	-	1,893
	Desert WA	16,865	-	-	27	16,892
	Littlerock Creek ID	920	-	-	-	920
	Metropolitan WD of Southern California	696,817	-	10,721	1,042	708,580
	Mojave WA	30,300	-	242	-	30,542
	Palmdale WD	2,470	-	3,229	-	5,699
	San Bernardino Valley MWD	26,085	-	9,348	-	35,433
	San Gabriel Valley MWD	11,516	-	-	-	11,516
	San Geronio Pass WA	5,312	-	480	-	5,792
	Ventura County WPD	3,890	-	-	-	3,890
Subtotal	864,377	-	52,850	1,264	918,491	
TOTAL SWP DELIVERIES		1,308,049	6,032	179,500	2,000	1,495,581

Table 7-7. Historical State Water Project Deliveries, Calendar Year 2010

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre-feet)				Total SWP Deliveries (acre-feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	807	-	-	-	807
	Plumas County FCWCD	243	-	-	-	243
	Yuba City	2,331	-	-	-	2,331
	Subtotal	3,381	-	-	-	3,381
North Bay Area	Napa County FCWCD	7,275	2,207	2,845	90	12,417
	Solano County WA	13,793	5,298	3,661	-	22,752
	Subtotal	21,068	7,505	6,506	90	35,169
South Bay Area	Alameda County FCWCD, Zone 7	28,694	-	13,104	249	42,047
	Alameda County WD	11,668	-	10,889	14	22,571
	Santa Clara Valley WD	37,850	-	22,471	34	60,355
	Subtotal	78,212	-	46,464	297	124,973
San Joaquin Valley Area	Dudley Ridge WD	19,650	-	9,750	156	29,556
	Empire West Side ID	380	-	166	-	546
	Kern County WA	411,821	-	55,419	3,044	470,284
	Kings County	4,094	-	522	29	4,645
	Oak Flat WD	2,412	-	455	18	2,885
	Tulare Lake Basin WSD	39,835	-	3,199	275	43,309
	Subtotal	478,192	-	69,511	3,522	551,225
Central Coastal Area	San Luis Obispo County FCWCD	3,480	-	277	-	3,757
	Santa Barbara County FCWCD	8,640	-	8,995	140	17,775
	Subtotal	12,120	-	9,272	140	21,532
Southern California Area	Antelope Valley-East Kern WA	35,312	-	20,813	438	56,563
	Castaic Lake WA	37,054	-	14,501	295	51,850
	Coachella Valley WD	69,175	-	7,595	429	77,199
	Crestline-Lake Arrowhead WA	1,357	-	-	-	1,357
	Desert WA	27,875	-	3,135	173	31,183
	Littlerock Creek ID	1,150	-	-	-	1,150
	Metropolitan WD of Southern California	900,210	-	67,783	5,922	973,915
	Mojave WA	41,132	-	20	-	41,152
	Palmdale WD	5,585	-	5,325	59	10,969
	San Bernardino Valley MWD	38,133	-	11,273	-	49,406
	San Gabriel Valley MWD	14,400	-	-	-	14,400
	San Geronio Pass WA	5,226	-	1,608	6	6,840
	Ventura County WPD	4,075	-	-	-	4,075
Subtotal	1,180,684	-	132,053	7,322	1,320,059	
TOTAL SWP DELIVERIES		1,773,657	7,505	263,806	11,371	2,056,339

Table 7–8. Historical State Water Project Deliveries, Calendar Year 2011

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre–feet)				Total SWP Deliveries (acre–feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	1,092	-	-	-	1,092
	Plumas County FCWCD	98	-	-	-	98
	Yuba City	2,297	-	-	-	2,297
	Subtotal	3,487	-	-	-	3,487
North Bay Area	Napa County FCWCD	9,426	-	1,388	-	10,814
	Solano County WA	9,620	14,739	-	-	24,359
	Subtotal	19,046	14,739	1,388	-	35,173
South Bay Area	Alameda County FCWCD, Zone 7	39,066	-	11,675	1,319	52,060
	Alameda County WD	24,813	1,959	9,332	506	36,610
	Santa Clara Valley WD	64,538	970	20,491	-	85,999
	Subtotal	128,417	2,929	41,498	1,825	174,669
San Joaquin Valley Area	Dudley Ridge WD	40,141	11,666	5,524	823	58,154
	Empire West Side ID	1,626	138	151	-	1,915
	Kern County WA	753,707	194,119	119,773	16,068	1,083,667
	Kings County	5,294	552	558	152	6,556
	Oak Flat WD	2,644	-	71	-	2,715
	Tulare Lake Basin WSD	39,056	6,909	4,626	1,454	52,045
	Subtotal	842,468	213,384	130,703	18,497	1,205,052
Central Coastal Area	San Luis Obispo County FCWCD	3,340	-	479	-	3,819
	Santa Barbara County FCWCD	29,132	-	9,318	-	38,450
	Subtotal	32,472	-	9,797	-	42,269
Southern California Area	Antelope Valley–East Kern WA	77,549	7,629	5,888	-	91,066
	Castaic Lake WA	34,067	400	9,332	-	43,799
	Coachella Valley WD	88,017	-	-	2,262	90,279
	Crestline–Lake Arrowhead WA	423	-	51	-	474
	Desert WA	36,139	-	-	240	36,379
	Littlerock Creek ID	-	-	-	-	-
	Metropolitan WD of Southern California	1,286,935	181,610	55,540	8,237	1,532,322
	Mojave WA	4,831	-	268	-	5,099
	Palmdale WD	12,294	-	5,019	-	17,313
	San Bernardino Valley MWD	30,916	-	7,210	-	38,126
	San Gabriel Valley MWD	23,040	-	-	-	23,040
	San Geronio Pass WA	8,884	-	1,619	-	10,503
	Ventura County WPD	4,000	-	-	-	4,000
Subtotal	1,607,095	189,639	84,927	10,739	1,892,400	
TOTAL SWP DELIVERIES		2,632,985	420,691	268,313	31,061	3,353,050

Table 7–9. Historical State Water Project Deliveries, Calendar Year 2012

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre–feet)				Total SWP Deliveries (acre–feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	17,875	-	-	-	17,875
	Plumas County FCWCD	79	-	-	-	79
	Yuba City	2,695	-	-	-	2,695
	Subtotal	20,649	-	-	-	20,649
North Bay Area	Napa County FCWCD	5,065	-	4,278	64	9,407
	Solano County WA	11,673	-	9,641	-	21,314
	Subtotal	16,738	-	13,919	64	30,721
South Bay Area	Alameda County FCWCD, Zone 7	32,301	-	20,357	179	52,837
	Alameda County WD	11,951	-	8,787	93	20,831
	Santa Clara Valley WD	34,612	-	11,462	222	46,296
	Subtotal	78,864	-	40,606	494	119,964
San Joaquin Valley Area	Dudley Ridge WD	17,694	-	-	112	17,806
	Empire West Side ID	1,468	-	774	-	2,242
	Kern County WA	560,969	-	32,477	2,180	595,626
	Kings County	5,337	-	2,001	21	7,359
	Oak Flat WD	2,596	-	612	-	3,208
	Tulare Lake Basin WSD	53,630	-	32,081	197	85,908
	Subtotal	641,694	-	67,945	2,510	712,149
Central Coastal Area	San Luis Obispo County FCWCD	3,111	-	833	-	3,944
	Santa Barbara County FCWCD	20,874	-	43	-	20,917
	Subtotal	23,985	-	876	-	24,861
Southern California Area	Antelope Valley–East Kern WA	80,694	-	32,854	-	113,548
	Castaic Lake WA	42,707	-	11,350	-	54,057
	Coachella Valley WD	89,928	-	22,663	307	112,898
	Crestline–Lake Arrowhead WA	624	-	-	-	624
	Desert WA	36,238	-	8,461	124	44,823
	Littlerock Creek ID	-	-	-	-	-
	Metropolitan WD of Southern California	1,086,084	-	118,172	4,241	1,208,497
	Mojave WA	4,672	-	6,572	-	11,244
	Palmdale WD	9,959	-	4,736	-	14,695
	San Bernardino Valley MWD	65,102	-	47,870	-	112,972
	San Gabriel Valley MWD	18,720	-	-	-	18,720
	San Geronio Pass WA	5,968	-	4,956	-	10,924
	Ventura County WPD	4,353	-	-	-	4,353
	Subtotal	1,445,049	-	257,634	4,672	1,707,355
TOTAL SWP DELIVERIES		2,226,979	-	380,980	7,740	2,615,699

Table 7–10. Historical State Water Project Deliveries, Calendar Year 2013

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre–feet)				Total SWP Deliveries (acre–feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	9,233	-	-	-	9,233
	Plumas County FCWCD	366	-	-	-	366
	Yuba City	3,360	-	1,490	-	4,850
	Subtotal	12,959	-	1,490	-	14,449
North Bay Area	Napa County FCWCD	2,963	-	9,075	-	12,038
	Solano County WA	5,355	-	17,805	-	23,160
	Subtotal	8,318	-	26,880	-	35,198
South Bay Area	Alameda County FCWCD, Zone 7	14,059	-	21,042	2,596	37,697
	Alameda County WD	4,241	-	15,349	50	19,640
	Santa Clara Valley WD	9,353	-	16,261	10,749	36,363
	Subtotal	27,653	-	52,652	13,395	93,700
San Joaquin Valley Area	Dudley Ridge WD	6,113	-	9,951	5,412	21,476
	Empire West Side ID	1,004	-	482	16	1,502
	Kern County WA	314,466	-	73,303	37,005	424,774
	Kings County	2,851	-	591	1,000	4,442
	Oak Flat WD	583	-	2,200	7	2,790
	Tulare Lake Basin WSD	27,803	-	4,169	8,400	40,372
	Subtotal	352,820	-	90,696	51,840	495,356
Central Coastal Area	San Luis Obispo County FCWCD	1,178	-	2,503	-	3,681
	Santa Barbara County FCWCD	3,252	-	12,233	-	15,485
	Subtotal	4,430	-	14,736	-	19,166
Southern California Area	Antelope Valley–East Kern WA	37,628	-	13,386	-	51,014
	Castaic Lake WA	33,320	-	28,434	-	61,754
	Coachella Valley WD	48,423	-	-	164	48,587
	Crestline–Lake Arrowhead WA	1,368	-	2,000	-	3,368
	Desert WA	19,513	-	-	66	19,579
	Littlerock Creek ID	-	-	-	-	-
	Metropolitan WD of Southern California	619,863	-	106,288	32,267	758,418
	Mojave WA	25,294	-	2,852	-	28,146
	Palmdale WD	4,559	-	3,122	-	7,681
	San Bernardino Valley MWD	26,159	-	4,426	-	30,585
	San Gabriel Valley MWD	10,080	-	-	-	10,080
	San Geronio Pass WA	2,339	-	3,729	1,000	7,068
	Ventura County WPD	2,890	-	-	-	2,890
Subtotal	831,436	-	164,237	33,497	1,029,170	
TOTAL SWP DELIVERIES		1,237,616	-	350,691	98,732	1,687,039

Table 7-11. Historical State Water Project Deliveries, Calendar Year 2014

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre-feet)				Total SWP Deliveries (acre-feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	2,596	-	-	-	2,596
	Plumas County FCWCD	251	-	-	-	251
	Yuba City	96	-	4,085	-	4,181
	Subtotal	2,943	-	4,085	-	7,028
North Bay Area	Napa County FCWCD	41	1,444	9,731	-	11,216
	Solano County WA	450	-	9,231	-	9,681
	Subtotal	491	1,444	18,962	-	20,897
South Bay Area	Alameda County FCWCD, Zone 7	1,367	-	17,609	-	18,976
	Alameda County WD	-	-	10,326	-	10,326
	Santa Clara Valley WD	-	-	12,339	79	12,418
	Subtotal	1,367	-	40,274	79	41,720
San Joaquin Valley Area	Dudley Ridge WD	1,783	-	15,783	40	17,606
	Empire West Side ID	104	-	349	-	453
	Kern County WA	1,393	-	24,717	520	26,630
	Kings County	112	-	360	-	472
	Oak Flat WD	-	-	983	-	983
	Tulare Lake Basin WSD	3,942	-	3,181	-	7,123
	Subtotal	7,334	-	45,373	560	53,267
Central Coastal Area	San Luis Obispo County FCWCD	379	-	2,693	-	3,072
	Santa Barbara County FCWCD	289	-	10,533	-	10,822
	Subtotal	668	-	13,226	-	13,894
Southern California Area	Antelope Valley-East Kern WA	2,186	-	12,213	111	14,510
	Castaic Lake WA	451	-	7,743	-	8,194
	Coachella Valley WD	6,918	-	-	-	6,918
	Crestline-Lake Arrowhead WA	83	-	658	-	741
	Desert WA	2,788	-	-	-	2,788
	Littlerock Creek ID	115	-	-	-	115
	Metropolitan WD of Southern California	59,909	-	223,358	-	283,267
	Mojave WA	3,347	-	2,228	-	5,575
	Palmdale WD	1,005	-	3,670	-	4,675
	San Bernardino Valley MWD	-	-	6,452	-	6,452
	San Gabriel Valley MWD	1,434	-	-	-	1,434
	San Geronio Pass WA	603	-	4,572	-	5,175
	Ventura County WPD	93	-	-	-	93
Subtotal	78,932	-	260,894	111	339,937	
TOTAL SWP DELIVERIES		91,735	1,444	382,814	750	476,743

Appendix F. Draft Water Shortage Contingency Plan
Resolution

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SAMPLE WATER SHORTAGE CONTINGENCY RESOLUTION

City of Vallejo

RESOLUTION NO. _____

WHEREAS, the California Legislature enacted Assembly Bill 11X during the 1991 Extraordinary Session of the California Legislature (an act to amend California Water Code Sections 10620, 10631, and 10652, and to add Section 10656 to the California Water Code, relating to water); and

WHEREAS, AB11X requires that every urban water supplier providing potable water directly to more than 3,000 customers or supplying more than 3,000 acre feet of water to develop a Water Shortage Contingency Plan; and

WHEREAS, AB11X mandates that said Water Shortage Contingency Plan be filed with the California Department of Water Resources by January 31, 1992; and

WHEREAS, The City of Vallejo is an urban water supplier providing water to more than 3,000 customers, and therefore, has prepared and filed a Water Shortage Contingency Plan, in compliance with requirements of AB11X; and

WHEREAS, The City of Vallejo (City) obtains water from the State Water Project, Solano Project and Lakes Frey and Madigan; and

WHEREAS, The City, has determined that a shortage condition exists because the projected available water supply is less than projected system-wide water purchases in the upcoming Supply Year beginning July 1; and

WHEREAS, the City of Vallejo's 2015 Urban Water Management Plan (UWMP) was approved in October 2016, and includes a Water Shortage Contingency Plan (WSCP) that sets forth five water conservation stages, attached hereto as Exhibit A, designed to reduce overall water usage; and

WHEREAS, public hearings have been conducted regarding the implementation of the City's Water Shortage Contingency Plan;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF VALLEJO:

1. The Water Shortage Contingency Plan is hereby implemented;
2. The City is hereby authorized (should the need arise) to declare a Water Shortage Emergency and implement the Water Shortage Contingency Plan;
3. The City shall take necessary actions to mitigate the effects on customers of the water shortage while continuing to fulfill its duties as a public utility water company.

I hereby certify that the foregoing resolution was adopted by the City of Vallejo at its meeting of

(signee)

Appendix G. Water Savings Incentive Program
Terms and Conditions

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**Solano County Water Agency
Commercial, Industrial, Institutional (CII)
Water Savings Incentive Pilot Program
Terms and Conditions for Participation**

Purpose: To provide financial incentives for CII accounts to upgrade their irrigation systems, plumbing fixtures, and/or water-using appliances for the purpose of water use efficiency.

Terms: Financial incentives will be provided after analyzing the cost benefit ratio of each proposed project. Incentives are tailored to each individual site as each site has varying water savings potential. Incentives will be granted at the sole discretion of the Solano County Water Agency and its water retailers.

Eligibility: Participants must be CII water customers in Solano County, have a water service account that has been active for at least twelve months, and, for irrigation upgrade requests, use potable water for irrigation. Properties using recycled water or well water do not qualify. (California Water Service customers within the City of Dixon do not qualify). Large landscapes for schools, parks, and publicly funded common areas with a minimum of 30,000 square feet of irrigated landscape will be targeted. Preference will be given to areas of irrigated turf.

Requirements: Water retailers will submit potential site candidates to SCWA for consideration. Potential participants must receive a SCWA water use efficiency survey to determine the potential for water savings at the site. Acceptance into the program will be based on the findings and recommendations outlined in the water survey report. If the survey findings indicate the scope of repairs for a particular site are or found unlikely to be cost-effective, as the costs of upgrade would not significantly improve the water efficiency of the site, the water retailer and/ or water customer will be notified that no repair actions are authorized under this program. Participating customers must submit receipts to SCWA within 90 days of receiving the water use efficiency survey report. An extension of the 90 days may be requested from SCWA, however that request must be submitted to the SCWA within 90 days of the customer receiving the water use efficiency report.

Rebate or Direct Installation Amount: Each publicly-funded site (non-residential, non-commercial), defined as a water account, will be eligible for *up to a maximum of \$10,000* in rebates or upgrades in addition to rebates or direct installations received by other SCWA water conservation programs including High Efficiency Toilet installations or weather-based irrigation controllers. Publicly funded sites will receive 100% reimbursement up to \$10,000 per account on a pre-approved basis.

When the program serves commercial accounts, reimbursements will be 50% of expenditures, on a pre-approved basis, up to a maximum of \$5,000 total expenditures.

Irrigation System elements eligible for reimbursement:

Water customers will be reimbursed for the cost of replacing existing irrigation system parts and equipment only. **No labor costs will be covered by this program.** Eligible expenses include:

- Replacement or upgrade to irrigation equipment (replacement of rotor or spray equipment, replacement with drip, etc.)
- Replacement of sprinkler heads for matching precipitation rates
- Pressure regulators and station control devices
- Rain sensors/ shut-off devices
- On a limited basis, new parts and equipment may be eligible for reimbursements to accommodate small modifications to existing systems to improve overall water efficiency (e.g. adding additional spray heads to an existing line.) Such requests must be requested and approved by SCWA. It is recommended that these requests be made prior to installation to ensure eligibility for reimbursement.

Indoor Water Use Systems or Fixtures Eligible for reimbursement:

Replacement or upgrades of indoor water use systems or fixtures will be determined on a case by case basis depending on the results of the survey, and the needs and water savings potential for the site.

How to Participate:

- Accept a water efficiency survey. If the results of the survey suggest a significant potential for water savings with installation of efficiency upgrades to irrigation or water using fixtures, apply for the Solano County Water savings Incentive Program.
- Obtain written confirmation from Solano County Water Agency water conservation program for upgrades.
- Purchase and install, or hire a contractor to install, the efficiency equipment.
- Provide original receipts to SCWA for reimbursement within 90 days of receiving the results of the water conservation survey.

Additional Information:

- Applicant name must be the same as water account customer of record.
- This program shall at all times be subject to change or termination without prior notice.

- Funding is limited. Program participation is available on a first come, first-served basis only. Program participation is subject to availability of funds and will end upon depletion of program funding.
- SCWA reserves the right to deny any application that does not meet all requirements for program participation. Due to variables beyond the control of SCWA, the Agency cannot guarantee that the installation of any of the program elements will result in a lower utility bill. Applicant waives and releases SCWA, participating water utilities, and their contractors or agents from any and all claims and causes of action arising out of the installation and use of this product. SCWA is not responsible for any damage that may occur to participants' property as a result of the program.

Appendix H. Public and Agency Notices, Meeting
Agenda and Comments

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60 Day Notice Letters



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

June 28, 2016

Roland Sanford, General Manager
Solano County Water Agency
810 Vaca Valley Pkwy., Ste. 203
Vacaville, CA 95688

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. Sanford:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

We anticipate having a draft plan available for public review in July 2016. Please contact me at (707) 648-4307 if you have any questions about the City's UWMP update.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Wilson".

Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



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June 28, 2016

Andrew Florendo, Water Conservation Coordinator
Solano County Water Agency
810 Vaca Valley Pkwy., Ste. 203
Vacaville, CA 95688

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. Florendo:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



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June 28, 2016

Graham Wadsworth, P.E.
Public Works Director/City Engineer
City of Benicia
250 East L St.
Benicia, CA 94510

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. Wadsworth:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



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June 28, 2016

Felix Riesenberg
Asst. Public Works Director/Utilities
City of Fairfield
1000 Webster St., 3rd Fl.
Fairfield, CA 94533

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. Riesenberg:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



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June 28, 2016

Shawn Cunningham
Public Works Director
City of Vacaville
650 Merchant St.
Vacaville, CA 95688

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. Cunningham:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



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June 28, 2016

Dave Melilli
Public Works Director
City of Rio Vista
One Main St.
Rio Vista, CA 94571

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. Melilli:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



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June 28, 2016

Joe Leach
Public Works Director
City of Dixon
600 East A St.
Dixon, CA 95620

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. Leach:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



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June 28, 2016

Bill Emlen, Director
County of Solano
Dept. of Resource Management
675 Texas St., Ste. 5500
Fairfield, CA 94533

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. Emlen:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

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Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



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June 28, 2016

Solano Irrigation District
810 Vaca Valley Pkwy., Ste. 201
Vacaville, CA 95688

Subject: City of Vallejo 2015 Urban Water Management Plan

To Whom It May Concern:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

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Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

June 28, 2016

Tim McSorley
Building & Public Works Director
Suisun City
701 Civic Center Blvd.
Suisun City, CA 94585

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. McSorley:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

We anticipate having a draft plan available for public review in July 2016. Please contact me at (707) 648-4307 if you have any questions about the City's UWMP update.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

June 28, 2016

Jason Holley, P.E.
Public Works Director
City of American Canyon
4381 Broadway St., Ste. 201
American Canyon, CA 94503

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. Holley:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

We anticipate having a draft plan available for public review in July 2016. Please contact me at (707) 648-4307 if you have any questions about the City's UWMP update.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

June 28, 2016

James Christensen, P.E.
GS-12 USAF AMC 60 CES/CEPM
401 Hickam Ave., Bldg. 571
Travis AFB, CA 94535-2001

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. Christensen:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

We anticipate having a draft plan available for public review in July 2016. Please contact me at (707) 648-4307 if you have any questions about the City's UWMP update.

Sincerely,

A handwritten signature in black ink, appearing to read "RW", with a long horizontal stroke extending to the right.

Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

June 28, 2016

Steve Lederer
Public Works Director
County of Napa
1195 3rd St., Ste. 101
Napa, CA 94559

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. Lederer:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

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Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

June 28, 2016

Phillip Miller
Deputy Director of Public Works/
Flood Control & Water
County of Napa
804 1st St.
Napa, CA 94559

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. Miller:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

We anticipate having a draft plan available for public review in July 2016. Please contact me at (707) 648-4307 if you have any questions about the City's UWMP update.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

June 28, 2016

Melissa Morton
District Manager
Vallejo Sanitation & Flood Control District
450 Ryder St.
Vallejo, CA 94590

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Ms. Morton:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

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Sincerely,

A handwritten signature in black ink, appearing to read "Richard Wilson".

Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

June 28, 2016

Shane McAfee
General Manager
Greater Vallejo Recreation District
395 Amador St.
Vallejo, CA 94590

Subject: City of Vallejo 2015 Urban Water Management Plan

Dear Mr. McAfee:

Existing state law requires each urban water supplier to prepare and adopt an urban water management plan at least once every 5 years. The City of Vallejo (City) is currently preparing a 2015 Urban Water Management Plan (UWMP).

The City's 2015 UWMP will document plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages. As such and in conformance with California Water Code Division 6, Part 2.6, Section 10621, the City is notifying the county within which the City provides water supplies that the UWMP is being prepared.

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Sincerely,

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

Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron

Newspaper Notices

(copies of Daily Republic notice placements followed by confirmation of placement in Times-Herald)

Father: Son's killing is a 'turning point' to change police

THE ASSOCIATED PRESS

EL CAJON — The father of an unarmed black man who was fatally shot by police in a San Diego suburb on Saturday told hundreds of demonstrators who peacefully marched through downtown streets that his son's death was a turning point in a struggle to change police practices.

Richard Olango Abuka called the El Cajon officer who fired his gun "a coward" and demanded that Police Chief Jeff Davis resign.

The orderly protest followed days of angry, sometimes unruly, protests that led to Friday's release of two videos by the authorities, something that the family and community had urged.

The videos show the officer fired four times at close range almost immediately after Alfred Olango, 38, suddenly raised both hands to chest level and took what police described as a shooting stance. In addition to the videos, police showed the 4-inch electronic cigarette device Olango had in his hands when he was shot.

The shots came less than a minute after police arrived at the scene in response to Olango's sister calling 911 and reporting he was acting erratically.

There was a modest

police presence Saturday to direct traffic as demonstrators walked from one rally to another, shouting Olango's name in unison as they made a short loop through the heart of the city of 104,000 people to Civic Center Plaza, which includes police headquarters. There were no reports of arrests or property damage.

"We must be united in this fight until we achieve our goals," Richard Olango Abuka told the crowd. "Alfred's death is going to be a turning point, and the change is now."

The father didn't directly address the videos but other speakers did. The Rev. Frank Placone-Willey of Summit Unitarian Universalist Fellowship in nearby Santee, California, read an email from a parishioner who watched them and questioned if police would have responded less aggressively if Olango were white.

"As long as Mr. Olango was not causing harm other than possibly blocking traffic, the officers should have taken steps to deescalate the situation," Placone-Willey read from the email, sparking applause.

Several speakers said the incident highlighted a need for more police training on how to handle people who are in mental distress.

The incident is the latest

in a series of fatal shootings of black men that have roiled communities across the U.S. It came weeks after fatal shootings by police in Tulsa, Oklahoma, and Charlotte, North Carolina.

Olango, a Ugandan refugee who arrived in the U.S. as a boy, had a criminal record that included drug and weapon charges but no violence. His family described him as a loving father and a joyful, happy person.

His mother said he suffered a mental breakdown recently after the death of his best friend. On Tuesday, his sister called 911 and reported he was acting strangely and walking into traffic by a strip mall.

The longer of the two videos released by police came from a surveillance camera in the drive-thru of a restaurant. It is roughly a minute, has no sound and police blurred out the heads of everyone in it.

Olango is seen walking through the parking lot and then stopping suddenly as Officer Richard Gonsalves approached, his weapon drawn at his side.

Olango, his right hand in his pants pocket, moved side to side and backed up toward a white pickup truck.

As Gonsalves moved in from the front, a second officer got out of a cruiser

and approached from the side.

In the second video, taken on a cellphone by a witness in the drive-thru, Olango's sister is seen approaching Gonsalves from behind and a woman can be heard screaming at Olango to put up his hands and telling police not to shoot.

Olango then bent over and assumed the shooting stance. Gonsalves quickly fired four shots at close range.



Winnie Olango, center, sister of Alfred Olango, is consoled by two friends before a march Saturday, in reaction to the fatal police shooting of her brother, in El Cajon.

State opens pathway for cars that lack steering wheel

THE ASSOCIATED PRESS

California regulators have changed course and opened a pathway for the public to get self-driving cars of the future that lack a steering wheel or pedals.

It's not going to happen immediately — automakers and tech companies are still testing prototypes.

But, in a shift, the state's Department of Motor Vehicles said in a revision of draft regulations released late Friday that the most advanced self-driving cars would no longer be required to have a licensed driver if federal officials deem them safe enough.

The redrafted regulations will be the subject of a public hearing Oct. 19 in Sacramento.

The DMV has been wrestling for several years with how to oversee the emerging technology.

In December, the agency released an initial draft of self-driving car regulations that required a licensed driver in any self-driving vehicle. The industry reacted with great disappointment, as the ultimate vision of many companies is a car that has no wheel or pedals.

That approach is based on the argument that humans are not very good at driving, and anyway cannot be relied on as a backup to a car that typically drives itself but might fail in a way that required a person in the driver's seat who might be distracted or

even asleep to snap to attention.

The DMV's new document coincides with the release last week of a 112-page federal proposal under which any self-driving car should pass a 15-point safety assessment before the public can get ahold of it. Among other things, the safety assessment asks automakers to document how the car detects and avoids objects and pedestrians, how hardened it is against cyberattacks and what how its backup systems will cope should the software fail. In incorporating the federal

approach, California dropped a proposal that a third-party company certify the safety of self-driving cars.

The new draft regulations released Friday include several other new provisions. Among them is wording that would prohibit advertising vehicles with lower levels of automation — such as Tesla Motors' Autopilot, which on divided highways can keep a car's lane, brake and accelerate on the understanding that a person is paying attention all the time — from being advertised as "autonomous" or "self-driving."

In brief

Earthquake alert issued for SoCal

SANTA ANA — Southern California residents should remain on heightened alert until Tuesday for the increased possibility of a major earthquake, officials said.

The warning by the Governor's Office of Emergency Services follows a series of small tremors deep under the Salton Sea, which is located on the 800-mile-long San Andreas fault, the Orange County Register reported Saturday.

— The Associated Press

NOTICE OF PUBLIC HEARING AND AVAILABILITY OF CITY OF VALLEJO DRAFT 2015 URBAN WATER MANAGEMENT PLAN

Notice is hereby given that a public hearing will be held Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of a proposed Urban Water Management Plan (UWMP) dated September 2016. A draft Water Shortage Contingency Plan (Section 8 of the UWMP) will also be under consideration for adoption.

Urban water suppliers, such as the City of Vallejo, are required by the Urban Water Management Planning Act (Water Code section 10610 et seq.) to update their UWMP and submit a completed UWMP to the Department of Water Resources every five years. A UWMP is required in order for a water supplier to be eligible for State administered grants, loans, and drought assistance. The UWMP describes and evaluates the City's water sources, water use patterns, Year 2020 Water Use Target, and actions the City will take to ensure that water is used efficiently within the service area, including during potential water shortages.

A Water Shortage Contingency Plan examines the potential for water shortages and provides an action plan for reducing water demand. Additional Council action would be required to authorize implementation of the Water Shortage Contingency Plan during a water shortage.

The UWMP, including the Water Shortage Contingency Plan and Year 2020 Water Use Target, is available for public review on the City's website www.cityofvallejo.net and at the following physical locations:

Vallejo City Clerk's Office Vallejo City Hall (3rd Floor) 555 Santa Clara Street Vallejo, CA 94590 [For hours call: (707) 648-4527]	Springtowne Library — Reference Desk 1003 Oakwood Avenue Vallejo, CA 94591 [For hours call: 1-866-57-ASKUS]
Vallejo Public Works Dept. Office Vallejo City Hall (4th Floor) 555 Santa Clara Street Vallejo, CA 94590 [For hours call: (707) 648-4315]	Solano Community College — Vallejo Center Library 545 Columbus Parkway, Room 124 Vallejo, CA 94591 [Hours: M – Th, 9 a.m. – 2 p.m.]
John F. Kennedy Library Adult Reference Desk 505 Santa Clara Street Vallejo, CA 94590 [For hours call: 1-866-57-ASKUS]	Fairfield Civic Center Library 1150 Kentucky Street Fairfield, CA 94533 [For hours call: 1-866-57-ASKUS]
	Fairfield Cordelia Library 5050 Business Center Drive Fairfield, CA 94534 [For hours call: 1-866-57-ASKUS]

Persons wishing to comment can do so either in writing or in person. Comments can also be presented at the public hearing. Please return written comments on the draft Urban Water Management Plan, including the draft Water Shortage Contingency Plan, to Pamela Sahin.

For further information, please contact:
Pamela Sahin, Water Conservation Coordinator
PHONE: (707) 648-4479
FAX: (707) 648-4060
E-MAIL: Pam.Sahin@cityofvallejo.net
MAIL: 202 Fleming Hill Road, Vallejo, CA 94589

Dawn G. Abrahamson
City Clerk

Date of Notice: October 2, 2016

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Fax: (707) 864-1852

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WORKFORCE DEVELOPMENT BOARD OF SOLANO COUNTY

WDB Regional Career Fair

DRESS FOR SUCCESS Thursday, October 6, 2016 **BRING YOUR RESUME**
10:00 A.M. to 2:00 P.M.

at the
University of Phoenix
5253 Business Center Drive, Fairfield, CA

MEET THE 90 REGIONAL HIRING EMPLOYERS ATTENDING THE CAREER FAIR!

A Bright Future	HomeWiseDocs	Renewable Electric
AC Transit	Inclusion Services, LLC	Reporter / Times-Herald
Aerotek	JC Professional Services	Simonton Windows, Inc.
All City Patrol	Jelly Belly	Six Flags Discovery Kingdom
Athome Healthcare Team	Just Desserts	Solano Community College
Barbier Security Group	KKDV 92.1	Solano County
Barry Callebaut	KKIQ 101.7	Solano Family & Children's Services
Bay Area Community Services	KUIC 95.3	Star Staffing
Bolt Staffing	KettlePOP	The Home Depot
Bridgestone	Lewis Management Corp.	The Salvation Army KROC Center
Calbee North America	Lowe's	TitleMax
CarMax	Mare Island Dry Dock	Travis Credit Union
Child Start, Inc.	Mezzetta Inc.	Treasury Wine Estates
Comcast	Michael's Transportation	Tutor Doctor
CHOC Energy	Mistras Group, Inc.	U.S. Army
Connections for Life	NAF Human Resources-Travis AFB	U.S. Customs and Border Protection
County of Sacramento	Napa Valley Support Services	UC Davis
Cycle Gear	National Express Transit / SolTrans	UC Davis Health System
DBI Beverage Napa	Nelson Staffing	Uber
Dungarvin	Nestle Waters of North America	University of Phoenix
Edward Jones	New York Life	USDA Forest Services
Express Employment Professionals	North Bay Apprenticeship	Verizon Wireless
Fastenal	Pace Solano	Villara Building Systems
Federal Bureau of Prisons	Paradise Valley Estates	VinoPro
FedEx	Partnership HealthPlan of CA	Waddell & Reed
Genentech	People's Care	Walmart
Ghiringhelli Specialty Foods	Platt	Westamerica
Gymboree	PRIDE Industries	
Hertz Car Rental	Pro-Form Laboratories	
	Quality Pro Maintenance	
	Rash, Curtis & Associates	

* This list is subject to change.

The Workforce Development Board (WDB) would like to thank the following sponsors for their support of the October 6, 2016 Regional Career Fair:

CO-HOST - University of Phoenix **PREMIER SPONSOR** - Alpha Media, 95.3 KUIC, 101.7 KKIQ & 92.1 KKDV

KEY SPONSORS - (\$1,000 or more): Daily Republic, HomeWiseDocs, Reporter/Times-Herald, The Salvation Army KROC Center **CORPORATE SPONSORS** - (\$500 or more): Airman & Family Readiness Center - TAFB, American Canyon Chamber of Commerce, Benicia Chamber of Commerce, California Human Development, Department of Rehabilitation, Dixon Chamber of Commerce, Express Employment Professionals, Fairfield-Suisun Chamber of Commerce, S&J Advertising, Inc., Solano County Office of Education, Travis Credit Union, Vacaville Chamber of Commerce, Vallejo Chamber of Commerce **COMMUNITY SPONSORS** - (up to \$500): Safeway, Solano/Yolo Veterans Employment Committee



Josh Redsun/Daily Republic

Tunnel vision

Matias Ilmas, 5 slides down a slide at Larry's Produce Pumpkin patch, Fairfield. Tuesday.

In brief

Procession, crowning of Mary set in Oakville

FAIRFIELD — The Carmelite House of Prayer will host a rosary procession and crowning to honor the Virgin Mary at 2 p.m. Sunday.

The event is at 20 Mount Carmel Drive, Oakville. All are welcome.

For more information, call 434-0605 or visit www.oakvillecarmelites.com/marian-rosary-and-crowning.html.

Free flu shots available at Solano libraries

FAIRFIELD — Solano County Library is partnering with the county's Public Health Services department to keep residents flu-free this fall.

"We welcome the opportunity to provide a service that is helpful to just about everyone. Getting the flu is miserable and it can be dangerous as well," said Bonnie Katz, Solano County's director of library services, in a press release.

The free, drop-in flu clinics are from 1 to 4 p.m.:

■ Oct. 20 at Rio Vista Library, 44 S. 2nd St.

■ Oct. 24 at Vacaville Public Library-Town Square, 1 Town Square Place.

■ Oct. 27 at Suisun City Library, 601 Pintail Drive.

■ Oct. 28 at Fairfield

Civic Center Library, 1150 Kentucky St.

■ Nov. 1 at John F. Kennedy Library, 505 Santa Clara St., Vallejo.

■ Nov. 2 at Vacaville Public Library-Cultural Center, 1020 Ulatis Drive.

For more information, visit www.solanolibrary.com.

Paranormal group talks Solano haunts

VACAVILLE — Ever wonder what lurks in the shadows or goes bump in the night in Solano County?

The Solano County paranormal team will give an insight into local haunts around the county starting at 5:30 p.m. Thursday at the Vacaville Public Library-Town Square, 1 Town Square Place.

Team members will discuss their experiences and share the paranormal evidence they've discovered. The program is free. Seating is limited.

For more information, call 1-866-57-ASKUS or visit the Solano County Library events calendar at www.solanolibrary.com.

DAR chapter to mark golden anniversary

FAIRFIELD — The Chief Solano Chapter of the National Society Daughters of the American Revolution will meet at 11 a.m. Satur-

day at the Courtyard by Marriott, 1350 Holiday Lane.

The organization will celebrate its 50th anniversary. The chapter was formed Oct. 15, 1966, in Vacaville.

Those attending are asked to wear something pink to help promote Breast Cancer Awareness Month. Prospective members and guests are invited. Reservations are required and needed by Wednesday.

For more information, call 429-3470.

Elks Lodge to sponsor scholarship applicants

VACAVILLE — The Vacaville Elks Lodge will sponsor student applicants from Fairfield, Vacaville, Dixon, Winters and Rio Vista-area high schools at the national finals.

Information concerning the Elks scholarship program has been provided to all local high schools.

Applications and full instructions are also available online at enf.elks.org/mvs. The deadline for applications is Nov. 30. All applications must be submitted online.

The Elks will award more than \$2.4 million in scholarships this year. The 500 national four-year scholarships range from \$4,000 to \$50,000.

Males and females compete separately and judging criteria includes, but is not limited to, scholastics, SAT scores, leader-

ship, community service and financial need. Applicants need not be related to a member of the Elks.

Several local applicants have advanced to the national finals over the past 20 years, according to a press release from the Vacaville Elks.

For more information, call Bob Meador, the Vacaville Elks scholarship chairman, at 480-7866 or send him an email at bobmeador@sbcglobal.net.

Juvenile justice council sets Fairfield meet

FAIRFIELD — The Juvenile Justice Coordinating Council will meet at 1:30 p.m. Wednesday at the county administration center, 675 Texas St., in Conference Room 6004 on the sixth floor.

The agenda includes a review of the diversion programs available for juveniles through local police departments and the Probation Department. An update on the County Multi-Agency Juvenile Justice Action Plan is also on the agenda.

For more information, visit www.solanocounty.com/depts/probation/jjcc/default.asp.

Suspect in Allan Witt Park assault back in court

JESS SULLIVAN
DAILY REPUBLIC

FAIRFIELD — A former Solano Community College basketball player is once again in trouble with the law.

Shackled, chained and wearing jailhouse garb, Jainice Robinson was in court Tuesday afternoon after having been arrested last week in Contra Costa County.

Robinson's court appearance was brief. She was ordered to appear in court Friday in front of Judge Wendy G. Getty. Robinson will remain locked up until then.

Getty ordered Robinson in April to serve six months in the county jail for her role in a 2015 ambush attack of a former friend in Allan Witt Park along with her sister and a friend, both of whom were also on the college's basketball team. The former friend was beaten and the car she was in was damaged with baseball bats.

A jury trial earlier this year ended with Robinson

being found guilty of felony vandalism and felony assault with intent to cause great bodily injury.

When Robinson, who faced a possible five-year prison term, was sentenced, she was allowed to turn herself in to the jail by June 30.

She never showed up. A warrant for her arrest went out in early July and she remained on the lam until authorities recently rounded her up.

Getty and prosecutors may reconsider Robinson's six-month jail sentence.

Robinson and her sister sued the college in federal court after the fight in the park led to their expulsion. The racial discrimination lawsuit is currently set for a jury trial in October and November 2017.

Reach Jess Sullivan at 427-6919 or jsullivan@dailyrepublic.net. Follow him on Twitter at www.twitter.com/jsullivandr.

Libraries partner with Hoopla for free streaming

DAILY REPUBLIC STAFF

FAIRFIELD — Thousands of movies, TV shows, music albums, e-books, audio books and comics are now available to Solano County residents for mobile and online devices through a new partnership with Hoopla Digital.

"We continually strive to serve the community in new and inventive ways that empower our customers to explore and grow," said Bonnie Katz, Solano County's director of library services, in a press release.

Library card-holders can download the free Hoopla digital mobile app on their Android or iOS device or visit www.solanolibrary.com/

ebooks-and-more to begin enjoying thousands of titles — from Hollywood studios, record companies and publishers.

The content is available to borrow 24/7, for instant streaming or temporary downloading to smartphones, tablets and computers.

"This new service will give Solano residents the ability to instantly enjoy thousands of new titles on their mobile devices and computers, giving them access to the library, any time, any place. Hoopla is easy to use and because it is digital, there is no need to return an item and no late fees," Katz said in the release.

Reach the Daily Republic newsroom at 425-4646.




**PUBLIC NOTICE OF SIGNED
FINAL RECORD OF DECISION/ FINAL REMEDIAL ACTION PLAN
INSTALLATION RESTORATION SITE 17 AND BUILDING 503 AREA
FORMER MARE ISLAND NAVAL SHIPYARD, VALLEJO, CALIFORNIA**

The Department of the Navy (Navy), in coordination with the California Department of Toxic Substances Control (DTSC) and California Regional Water Quality Control Board (Regional Water Board) announces the approval of the Final Record of Decision/Final Remedial Action Plan (ROD/Final RAP) for the Installation Restoration Site 17 (IR17) and Building 503 Area at the former Mare Island Naval Shipyard (MINS), in Vallejo, California. The ROD/Final RAP was signed by the Navy on September 23, 2016; Department of Toxic Substances Control on September 26, 2016; and San Francisco Bay Regional Water Quality Control Board on September 30, 2016.


The selected remedy was presented to the public for review in the Proposed Plan/Draft RAP for the IR17 and Building 503 Area. The remedy includes excavation and off-site disposal of contaminants in soil, monitored natural attenuation of contaminants in soil gas, and land use controls to prohibit specific land uses and activities. The public was invited to comment on the Proposed Plan/Draft RAP during a 30-day comment period from May 26 to June 25, 2015 and during the public meeting on May 28, 2015. The remedy was selected after the meeting and all public comments were received and addressed. The Navy in conjunction with the state regulatory agencies has determined that the selected alternative is protective of human health and the environment and achieves the Remedial Action Objectives developed for the IR17 and Building 503 Area.

FOR MORE INFORMATION
The ROD/Final RAP and other site documents are available for review at the locations listed below. For more information about the ROD/Final RAP, please contact Ms. Janet Lear, 33000 Nixie Way, Bldg. 50, San Diego, California 92147, (619) 524-1924 or janet.lear@navy.mil.

<p>John F. Kennedy Library 505 Santa Clara Street Vallejo, California 94590 Phone (866) 572-7587</p>	<p>Administrative Record Naval Facilities Engineering Command, Southwest 1220 Pacific Highway (NBSD Building 3519) San Diego, California 92132 Phone (619) 556-1280</p>
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BRAC Program Management Office:
http://www.bracpmo.navy.mil/brac_bases/california/former_shipyard_mare_island.html

DTSC's EnviroStor website:
http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=48970002&site_id=2004894



**NOTICE OF PUBLIC HEARING AND AVAILABILITY
OF CITY OF VALLEJO DRAFT
2015 URBAN WATER MANAGEMENT PLAN**

Notice is hereby given that a public hearing will be held Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of a proposed Urban Water Management Plan (UWMP) dated September 2016. A draft Water Shortage Contingency Plan (Section 8 of the UWMP) will also be under consideration for adoption.

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For further information, please contact: Pamela Sahin, Water Conservation Coordinator
PHONE: (707) 648-4479 • FAX: (707) 648-4060
E-MAIL: Pam.Sahin@cityofvallejo.net • MAIL: 202 Fleming Hill Road, Vallejo, CA 94589

Dawn G. Abrahamson - City Clerk
Date of Notice: **October 2, 2016**

CHP helicopter crew rescues 2 men after boat crashes, sinks

DAILY REPUBLIC STAFF

MARE ISLAND — Two boaters were rescued Saturday afternoon after their boat began to take on water and later sank, the California Highway Patrol reports.

The rescue operation began at 1:20 p.m. when the CHP was notified that a boat had crashed near the south end of Mare Island. A CHP helicopter responded to the area and, after a brief search, found the sinking boat and two men standing on a rock jetty.

They were trapped by the rising tide and wind-swept waves were crashing around them, the CHP reports. The U.S. Coast Guard station in Vallejo was notified of the situation

and a rescue boat was sent to the scene. Vallejo Fire Department personnel were notified as well and establish a landing area nearby on Mare Island.

The CHP helicopter crew hoisted the two men individually from the rocks in winds that gusted to 30 mph, the CHP reports, and took them to the landing zone, where emergency personnel established that both men were not injured.

Their boat, however, sank as the rescue operation was taking place, the CHP reports. The cause of the boat crash was not released.

Reach the Daily Republic newsroom at 425-4545.



Susan Hiland/Daily Republic

Sheila Nipper and Carol Piel, both of Fairfield, admire the bowls created by students at Solano Community College

for the Empty Bowls fundraiser hosted by the Food Bank of Contra Costa and Solano, Saturday.

Empty Bowls meal raises cash, awareness to help Solano's hungry

SUSAN HILAND
DAILY REPUBLIC

FAIRFIELD — The ceramic bowls made by Solano Community College art students covered three tables Saturday at the Food Bank of Contra Costa and Solano's warehouse in Fairfield.

The hand-crafted bowls were made for the Empty Bowls fundraiser and came in blues, grays and browns.

Some of the people have been taking them home each year for the past eight years as a reminder that people are going hungry right here at home. Others came for the first time and admired the workmanship of the bowls before they got up for some soup and bread.

The Food Bank of

Contra Costa and Solano helps thousands of people each year put food on the table for at least one good meal. The Empty Bowls fundraiser looks to bring in money to help with the holiday season at the food bank.

"The theme of this is Empty Bowls because thousands face empty bowls each night, and we want people to remember that when they look at these bowls," said Larry Sly, executive director of the Food Bank of Contra Costa and Solano.

He said the organization feeds 190,000 people each month between Solano and Contra Costa counties.

About 85 people came to have supper, take a tour of the facility and learn about what the food bank

does for the county.

Sheila Nipper and Carol Piel, both of Fairfield, have wanted to attend the event for the past few years but said something always would come up.

"We really wanted to come this year," Nipper said.

She commented on the beauty of the bowls and the fine work that was put into making them.

"It was hard to decide which bowl to pick," Piel said.

The meal was a choice of three soups: cream of broccoli, chicken noodle and lentil with bacon. Each soup came from a different sponsor: Englund's Cafe and Catering, Tony's 2 Go and Loaves and Fishes. The bread was donated by Boudin SF.

This was the third time

Valisa Langhorne of Vacaville attended the event. She brought her family, including her sister and brother-in-law. She brought her children last year but they had a school event this year.

"I really like what the food bank does," she said. "I wanted to support that and brought my kids because they need to know about helping people."

Langhorne has volunteered at the food bank but recently has slowed down on her volunteer work.

"I was surprised at how many people are struggling greatly in this county," she said. "We really need (the) food bank to help people."

Reach Susan Hiland at 427-6981 or shiland@dailyrepublic.net.

In brief

Solano supervisors next meet Oct. 25

FAIRFIELD — The Solano County Board of Supervisors will not meet Tuesday — their regularly scheduled third Tuesday off-day in the month.

The board, which also took Oct. 11 off due to the Columbus Day holiday, will next meet at 9 a.m. Oct. 25 in the first-floor chamber of the county building, 675 Texas St. in Fairfield.

The agenda for the meeting will be posted Friday.

Edwards Theatres offers free final debate viewing

FAIRFIELD — Edwards Fairfield Stadium 16 & IMAX, at Solano Town Center, will show the final presidential debate live at 6 p.m. Wednesday.

"See Clinton vs. Trump 'face off' one more time," said Steve Bunnell, chief content and programming officer at Regal Entertainment Group, in a press release. "After the success of airing the last debate, including many full auditoriums, we want to continue to encourage our local communities to be engaged in public policy and provide Regal guests the unique opportunity to experience the political process on the big screen."

Admission is free. For more information, visit www.regmovies.com/promotions/presidential-debate.

CHP announces Age Well Drive Smart class

BENICIA — The California Highway Patrol is hosting a free Age Well Drive Smart class from 9 a.m. to noon Monday at the Benicia Library, 150 E. L St.

The program is designed specifically to help seniors tune their driving skills, refresh their knowledge of the rules of the road and learn more about how normal age-related physical changes can affect driving ability.

To register for the class or for more information, call 428-2100 or visit www.chp.ca.gov.

Adult Recreation Center site of 'Money Talks'

FAIRFIELD — "Money Talks," a panel discussion by expert professionals on estate planning, inheritance and tax law, family law and other topics, will take place Monday at the Adult Recreation Center.

The free event begins at 1:30 p.m.

Attorney Brian Tubis, accountant Randy Peace and fiduciaries and financial consultants Tom Kiernan, Mark Sievers and Leo Martinez are among panelists.

The center is located at 1200 Civic Center Drive.

GITI, Continental recall defective tires

GITI Tire and Continental Tire have issued recalls affecting about 265,000 vehicles.

GITI is recalling various sizes of its Primewell Valera Touring II, GT Radial Champiro Touring and Dextero Touring DTR1 tires because of a defect that causes cracks in the lower sidewall, causing air to leak out. The potentially dangerous tires will be replaced for free on the more than 250,600 affected vehicles. For more information, call GITI at 877-342-0882.

Continental Tire is recalling certain Crosscontact LX20 tires made in May 2015 that were installed on more than 14,500 General Motors trucks and sports utility vehicles. The tires have a problem that could cause excessive tread wear, vibration, noise, or bulging areas. They also will be replaced for free. For more information, call Continental at 888-799-2168.

— Staff, wire reports

SF officer shot in head, suspect in custody

THE ASSOCIATED PRESS

SAN FRANCISCO — A San Francisco police officer was critically injured after being shot in the head while responding to reports of a mentally disturbed person. The officer is expected to survive.

San Francisco Police spokeswoman Officer Giselle Talkoff says officers were responding Friday night to the Lakeshore Shopping Center on a call about a man causing a disturbance

and threatening people.

Talkoff says that when the officers made contact with the suspect he fired multiple shots, striking the officer in the head.

She says officers fired shots at the suspect as he

fled. He went down but wouldn't drop the gun and refused to surrender. Police distracted him with flash-bang grenades and were able to arrest him. He was taken to a hospital for treatment.

Talkoff says the wounded officer, who was not identified, is in critical condition. He is conscious and with his family members.

NOTICE OF PUBLIC HEARING AND AVAILABILITY OF CITY OF VALLEJO DRAFT 2015 URBAN WATER MANAGEMENT PLAN

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'Stop whining,' Obama tells Trump

THE ASSOCIATED PRESS

WASHINGTON — "Stop whining," President Barack Obama rebuked Donald Trump on Tuesday, speaking out as seldom before on next month's election and chiding the Republican for sowing suspicion about the integrity of America's presidential vote.

Obama also accused Trump of cozying up to Russia's Vladimir Putin to a degree "unprecedented in American politics."

The president said Trump's intensifying preemptive warnings about voter fraud are unheard of in modern politics. The rhetoric is not based on any evidence, Obama said, but is simply aimed at discrediting the outcome before the first votes are counted.

"You start whining before the game is even over?" Obama said at a Rose Garden news conference. "If whenever things are going badly for you and you lose you start blaming somebody else — then you don't have what it takes to be in this job."

Campaigning in Colorado, the GOP candidate repeated his assertions about "corrupt" elections but did not respond directly to the president. Trump vowed to "drain the swamp" in Washington, and for the first time promised to push for a constitutional amendment to impose term limits on all members of Congress.

Witnesses back account of Trump sex assault

THE ASSOCIATED PRESS

WASHINGTON — People Magazine reported Tuesday that a half-dozen people have come forward to corroborate its writer's account of being sexually assaulted by Donald Trump and its aftermath.

Natasha Stoyneff, a former staff writer at the celebrity magazine, wrote last week that Trump grabbed her, pinned her against a wall and forcibly kissed her in a room at his Mar-a-Lago mansion in Florida in 2005. She was on assignment to write a profile of the billionaire businessman and his then-pregnant wife, who Stoyneff said was upstairs when it happened.

The Republican presidential nominee has denied the accusation, saying Stoyneff fabricated the incident. He also suggested Stoyneff, 51, is not physically attractive enough to merit his attention.

"She lies! Look at her, I don't think so," Trump, 70, said at a campaign rally last week.

Stoyneff is one of about a dozen women who have recently accused Trump of such misconduct as groping, unexpected kisses on the mouth and unwanted sexual advances.

Though Stoyneff says she and Trump were alone when he accosted her, the magazine's latest story quotes five friends and former co-workers who say the writer told them about the incident shortly after it happened.

In Stoyneff's first-person account, she also wrote of a chance meeting and brief conversation with Melania Trump along New York's Fifth Avenue weeks later. She said Trump's third wife was by then carrying the couple's infant son, Barron, in her arms while outside Trump Tower.

Amid talk of 'rigged' election, experts say fraud is rare

THE ASSOCIATED PRESS

ATLANTA — Donald Trump has repeatedly warned of a "rigged" election, saying large-scale voter fraud is happening in the U.S. and suggesting it will affect the outcome of this year's presidential race. There is no evidence that such widespread fraud exists.

Trump's comments have alarmed voting rights experts and civil rights groups, who say they threaten to undermine faith in the nation's elections. Meanwhile, House Speaker Paul Ryan and other Republicans are expressing confidence in the voting systems, while state election officials are saying they are committed to conducting fair and impartial elections.

It's worth noting, too, that 29 of the nation's secretaries of state are Republican.

Here's a look at what Trump has been saying, along with historical data about voter fraud and what this could mean for Election Day.

What Trump has said

In recent weeks, Trump has repeatedly raised questions about the integrity of the nation's voting systems and called for his supporters to monitor polling places in "certain areas" to guard against voter fraud. He's made the comments during campaign stops in battleground states such as Michigan and Pennsylvania, singling out Philadelphia as a city to watch.

Recently, Trump sent a series of tweets in which he called Republican leaders "naive" for dismissing his claims of widespread voter fraud and saying the election is being rigged "by the dishonest and distorted media" for Democrat Hillary Clinton.

Trump's supporters appear to share his concerns. A poll last month by the Associated Press-NORC Center for Public



The Associated Press

Republican presidential candidate Donald Trump speaks to the Republican Hindu Coalition, Saturday, in Edison, N.J.

Affairs Research found half of all those with a favorable opinion of Trump said they have little to no confidence in the integrity of the vote count.

Is voter fraud a widespread problem

No. While there have been isolated cases of voter fraud in the U.S., there is no evidence of it being a widespread problem as Trump suggests.

The type of fraud that Trump appears to be talking about would involve people casting ballots who know they are not eligible to vote, as well as people impersonating others to cast ballots for their preferred candidate. Experts say this would be an inefficient way to rig an election, given the fraud would have to be conducted one voter at a time, and would only be effective in places where the race is close enough that the outcome could be swayed.

Studies have shown voter impersonation to be quite rare. In one study, a Loyola Law School professor found 31 instances involving allegations of voter impersonation out of 1 billion votes cast in U.S. elections between 2000 and 2014. Another

study by the Brennan Center for Justice at New York University Law School found many reports of people voting twice or ballots being cast on behalf of dead people were largely the result of clerical errors that suggested wrongdoing when none had occurred.

"Voter fraud is so incredibly rare that it has no impact on the integrity of our elections," said Wendy Weiser, head of the democracy program at the Brennan Center. "You are more likely to be struck by lightning, more likely to see a UFO, than to be a victim of voter fraud."

In Philadelphia on Monday, Republican election commissioner Al Schmidt dismissed the idea that election fraud could take place in the nation's fifth-largest city. "The real threat to the integrity of elections is irresponsible accusations that undermine confidence in the electoral process," he said.

Voter fraud vs. election fraud

Other types of fraud are possible, such as voting machines being intentionally manipulated to report false results. So-called

"ballot stuffing" would be considered election fraud, rather than voter fraud, because it would be orchestrated by someone involved in administering the election or someone who has gained access to the election administration system.

Experts say federal elections would be much more difficult to influence this way because of the broad, decentralized nature of the nation's voting systems. There are more than 9,000 election jurisdictions and hundreds of thousands of polling places.

That also holds true for any effort by hackers to influence this year's presidential election. Experts say it's unlikely a hacker could change votes, but one might be able to delete voters from registration files, triggering confusion and long lines at the polls.

What measures exist to combat fraud?

State election officials have several measures in place to protect the integrity of their voting systems, and both political parties have a vested interest in making sure the outcome is fair.

Voting machines are not

connected to the internet, and the vast majority of ballots will be cast on systems that allow for a paper record to verify electronic results.

The process of counting the votes is not done on systems connected to the internet, and tabulation systems are not connected to a single network, according to the National Association of Secretaries of State.

As in past presidential elections, individual campaigns, political parties and special interest and civil rights groups will have operations designed to assist voters and monitor for any problems at the polls.

Does voter ID combat fraud?

There have been efforts in recent years, largely in Republican-led states, to pass laws requiring voters to show photo identification at the polls. Supporters say such laws are needed to combat voter fraud, while critics argue the laws disproportionately affect minorities and the poor who may face challenges obtaining a government-issued photo ID.

Courts have recently agreed. In striking down parts of a voter ID law in North Carolina this year, a federal appeals court judge wrote they "target African Americans with almost surgical precision."

The courts have also largely found there is little documented evidence of voter fraud. In a decision finding Texas' photo ID law was discriminatory, a federal appeals court noted there were two convictions related to in-person voter fraud out of 20 million votes cast in the decade before the law was enacted.

Experts note that fraud, when it occurs, usually involves absentee ballots or voter registration — problems that could not be solved by requiring an ID at the polls.

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NOTICE OF PUBLIC HEARING AND AVAILABILITY OF CITY OF VALLEJO DRAFT 2015 URBAN WATER MANAGEMENT PLAN

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Dawn G. Abrahamson - City Clerk
Date of Notice: **October 2, 2016**

Times-Herald

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PROOF OF PUBLICATION (2015.5 C.C.P.)

STATE OF CALIFORNIA
COUNTY OF SOLANO, S.S.

FILE NO. NOH- UWMP

I am a citizen of the United States. I am over the age of eighteen years and not a party to or interested in the above-entitled matter. I am the Legal Advertising Clerk of the printer and publisher of the Vallejo Times-Herald, a newspaper published in the English language in the City of Vallejo, County of Solano, State of California.

I declare that the Vallejo Times-Herald is a newspaper of general circulation as defined by the laws of the State of California as determined by this court's order dated June 12, 1952 in the action entitled In the Matter of the Ascertainment and Establishment of the Standing of Vallejo Times-Herald as a Newspaper of General Circulation, Case Number 25864. Said order states "Vallejo Times-Herald" has been established, printed and published in the City of Vallejo, County of Solano, State of California; That it is a newspaper published daily for the dissemination of local and telegraphic news and intelligence of general character and has a bona fide subscription list of paying subscribers; and...THEREFORE, IT IS ORDERED, ADJUDGED AND DECREED:...That "Vallejo Times-Herald" is a newspaper of general circulation for the City of Vallejo, County of Solano, California. Said order has not been revoked.

I declare that this notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

10/02/2016, 10/11/2016, 10/16/2016, 10/18/2016

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Vallejo, California, this
18th day of October 2016



(Signature) Haleigh Hernandez



**NOTICE OF PUBLIC HEARING AND AVAILABILITY
OF CITY OF VALLEJO DRAFT 2015 URBAN WATER MANAGEMENT PLAN**

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Dawn G. Abrahamson
 City Clerk

Date of Notice: October 2, 2016

Notices of Availability of Public Draft UWMP



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Roland Sanford
General Manager
Solano County Water Agency
810 Vaca Valley Pkwy., Ste. 203
Vacaville, CA 95688

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. Sanford:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Wilson".

Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Andrew Florendo
Water Conservation Coordinator
Solano County Water Agency
810 Vaca Valley Pkwy., Ste. 203
Vacaville, CA 95688

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. Florendo:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Wilson", is written over a thin horizontal line.

Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Graham Wadsworth, P.E.
Public Works Director / City Engineer
City of Benicia
250 East L. Street
Benicia, CA 94510

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. Wadsworth:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works - Water Division section.

Although our current agreement to provide 1,100 Acre-Feet (358 MG) per year to American Canyon expires in 2025, it is assumed in the UWMP to be extended for purposes of the report. Terms of any agreement extension would need to be negotiated at a future time.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Felix Riesenberg
Asst. Public Works Director/Utilities
City of Fairfield
1000 Webster St., 3rd Fl.
Fairfield, CA 94533

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. Riesenberg:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Shawn Cunningham
Public Works Director
City of Vacaville
650 Merchant St.
Vacaville, CA 95688

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. Cunningham:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Dave Melilli
Public Works Director
City of Rio Vista
One Main St.
Rio Vista, CA 94571

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. Melilli:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Joe Leach
Public Works Director
City of Dixon
600 East A St.
Dixon, CA 95620

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. Leach:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Bill Emlen, Director
County of Solano
Dept. of Resource Management
675 Texas St., Ste. 5500
Fairfield, CA 94533

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. Emlen:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



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October 4, 2016

Solano Irrigation District
District Office
810 Vaca Valley Pkwy., Ste. 201
Vacaville, CA 95688

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

To Whom It May Concern:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Tim McSorley
Building & Public Works Director
Suisun City
701 Civic Center Blvd.
Suisun City, CA 94585

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. McSorley:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Jason Holley, P.E.
Public Works Director
City of American Canyon
4381 Broadway St., Suite 201
American Canyon, CA 94503

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. Holley:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works - Water Division section.

In the plan we have assumed that the City of American Canyon will purchase all remaining available capacity options, resulting in a demand projection of 2,640 Acre-Feet in 2020, and 3,206 Acre-Feet in 2025 through 2040 for potable water. The 500 Acre-Feet of raw water per year is projected to be continued through the 2040 time frame of the plan.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Wilson", is written below the word "Sincerely,".

Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

James Christensen, P.E.
GS-12 USAF AMC 60 CES/CEPM
Travis Air Force Base
401 Hickam Ave. Bldg. 571
Travis AFB, CA 94535-2001

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. Christensen:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works - Water Division section.

In the plan we have included projections of maximum annual water demand from the base at 2.9 MGD or 1,058 MG per year. We relied on information provided from your 2005 Water Supply Master Plan.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Wilson".

Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Steve Lederer
Public Works Director
County of Napa
1195 3rd St., Ste. 101
Napa, CA 94559

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. Lederer:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



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October 4, 2016

Phillip Miller
Deputy Director of Public Works/
Flood Control & Water
County of Napa
804 1st St.
Napa, CA 94559

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. Miller:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Melissa Morton
District Manager
VSFCD
450 Ryder St.
Vallejo, CA 94590

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Ms. Morton:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron



Water Division • 202 Fleming Hill Road • Vallejo, CA 94589 • 707.648.4307 • Fax 707.648.4060

October 4, 2016

Shane McAfee
General Manager
GVRD
395 Amador St.
Vallejo, CA 94590

Subject: City of Vallejo Draft 2015 Urban Water Management Plan

Dear Mr. McAfee:

The City completed a Draft 2015 Urban Water Management Plan, which is available for review online on the City's website, www.cityofvallejo.net under the Public Works Water Division section.

Be advised that a public hearing will be held on Tuesday, October 25, 2016 at 7:00 p.m. in the City Council Chambers, 555 Santa Clara Street, to consider the adoption of the plan.

Please contact me at (707) 648-4307 if you have any questions about the City's Draft 2015 Urban Water Management Plan.

Sincerely,

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Richard Wilson, P.E.
Engineering Manager

cc: David Kleinschmidt, Public Works Director
PW Chron

City of Vallejo - City Council
Meeting Agenda
10/25/16



City Hall
555 Santa Clara Street
Vallejo, CA 94590
www.cityofvallejo.net

AGENDA

VALLEJO CITY COUNCIL SPECIAL MEETING – 5:00 P.M.

VALLEJO CITY COUNCIL REGULAR MEETING – 7:00 P.M.

OCTOBER 25, 2016

MAYOR
Osby Davis

CITY COUNCIL
Vice Mayor, Rozzana
Verder-Aliga, EdD
Pippin Dew-Costa
Jesus "Jess" Malgapo
Robert H. McConnell
Katy Miessner
Bob Sampayan

This AGENDA contains a brief general description of each item to be considered. The posting of the recommended actions does not indicate what action may be taken. If comments come to the City Council without prior notice and are not listed on the AGENDA, no specific answers or response should be expected at this meeting per State law.

Pursuant to the Government Code Section 54954.3 (The Brown Act), members of the public shall be afforded the opportunity to speak on any agenda item of interest to them provided they are first recognized by the presiding officer. Members of the public wishing to be so recognized are requested to submit a completed speaker card to the City Clerk prior to the consideration of the item.

Those wishing to address the Council on any matter for which another opportunity to speak is not provided on the AGENDA but which is within the jurisdiction of the City Council to resolve may come forward to the podium during the "COMMUNITY FORUM" portion of the AGENDA.

Members of the public have the right to speak on any item on this agenda. Those wishing to address the Council: 1) during the Community Forum are limited to three minutes pursuant to Vallejo Municipal Code Section 2.20.300; 2) on a Consent Calendar item are limited to three minutes pursuant to Vallejo Municipal Code Section 2.02.310; and an Action Calendar item are limited to five minutes pursuant to Vallejo Municipal Code Section 2.02.420.

Notice of Availability of Public Records: All public records relating to an open session item, which are not exempt from disclosure pursuant to the Public Records Act, that are distributed to a majority of the City Council will be available for public inspection at the City Clerk's Office, 555 Santa Clara Street, Vallejo, CA at the same time that the public records are distributed or made available to the City Council. Such documents may also be available on the City of Vallejo website subject to staff's ability to post the documents prior to the meeting. Information may be obtained by calling (707) 648-4527, TDD (707) 649-3562.

Want more City Information - Members of the public can:

Like us on Facebook (www.facebook.com/cityofvallejo)

Sign up to receive City Communications via e-mail (www.cityofvallejo.net/living/connect)

Sign up to receive City updates and get connected with your neighbors on Nextdoor (www.nextdoor.com)



Vallejo City Council Chambers is ADA compliant. Devices for the hearing impaired are available from the City Clerk. Requests for disability related modifications or accommodations, aids or services may be made by a person with a disability to the City Clerk's office no less than 72 hours prior to the meeting as required by Section 202 of the Americans with Disabilities Act of 1990 and the federal rules and regulations adopted in implementation thereof.

**CALL AND NOTICE OF
SPECIAL MEETING
AT 5:00 PM
OF THE VALLEJO CITY COUNCIL
OCTOBER 25, 2016**

TO THE MEMBERS OF THE VALLEJO CITY COUNCIL:

You are hereby notified that I do hereby call the Vallejo City Council in special session to consider only the matters stated on the agenda listed below.

NOTICE: Members of the public shall have the opportunity to address the City Council concerning any item listed on the agenda *before or during* consideration of that item. *No other items may be discussed at this special meeting.*

1. CALL TO ORDER

2. ROLL CALL

3. CLOSED SESSION

- A. Conference with Legal Counsel - Existing Litigation: Acme Transfer and Storage, Inc. v. City of Vallejo, Solano County Superior Court, FCS 041008, pursuant to subsection (a) of Government Code section 54956.9

- B. Conference with Labor Negotiators: pursuant to Government Code Section 54957.6. Negotiators: Daniel E. Keen, City Manager; Jasmin Loi, Human Resources Director; and Austris Rungis, IEDA. Employee Organizations: International Association of Firefighters, Local 1186 (IAFF); Vallejo Police Officers Association (VPOA); International Brotherhood of Electrical Workers, Local 1245 (IBEW); Confidential, Administrative and Managerial Professionals (CAMP); and Unrepresented Employees: Executive Management Group.

- C. Conference with Real Property Negotiators pursuant to Government Code Section 54956.8 - Property: the parcels generally known as "North Mare Island" including APNS (1) 0066-020-110, (2) 0066-020-130 and (3) 0066-020-150; City Negotiators: Daniel E. Keen, City Manager; and Andrea Ouse, Community & Economic Development Director; Negotiating Parties: FF LLC, a California Liability Company; Under Negotiations: Price and Terms of Payment

4. ADJOURNMENT

Dated: Thursday, October 20, 2016



Osby Davis, Mayor

I, Dawn Abrahamson, City Clerk, do hereby certify that I have caused a true copy of the above notice and agenda to be delivered to each of the members of the Vallejo City Council, at the time and in the manner prescribed by law and that this agenda was posted at City Hall, 555 Santa Clara Street, CA at 5:00 p.m., Thursday, October 20, 2016.



Dated: Thursday, October 20, 2016

Dawn G. Abrahamson, City Clerk

**VALLEJO CITY COUNCIL
REGULAR MEETING – 7:00 PM
COUNCIL CHAMBERS
OCTOBER 25, 2016**

- 1. CALL TO ORDER**
- 2. PLEDGE OF ALLEGIANCE**
- 3. ROLL CALL**
- 4. PRESENTATIONS AND COMMENDATIONS**

5. FIRST COMMUNITY FORUM

Anyone wishing to address the Council on any matter for which another opportunity to speak is not provided on the agenda, and which is within the jurisdiction of the Council to resolve, is requested to submit a completed speaker card to the City Clerk. When called upon, each speaker should step to the podium, state his /her name, and address for the record. The conduct of the community forum shall be limited to a maximum of fifteen (15) minutes, with each speaker limited to three minutes pursuant to Vallejo Municipal Code Section 2.20.300.

6. PUBLIC COMMENT REGARDING CONSENT CALENDAR ITEMS

Members of the public wishing to address the Council on Consent Calendar Items are requested to submit a completed speaker card to the City Clerk. Each speaker is limited to three minutes pursuant to Vallejo Municipal Code Section 2.02.310. Requests for removal of Consent Items received from the public are subject to approval by a majority vote of the Council. Items removed from the Consent Calendar will be heard immediately after approval of the Consent Calendar and Agenda.

7. CONSENT CALENDAR AND APPROVAL OF AGENDA

A. APPROVAL OF MINUTES

Recommendation: By motion, approve City Council minutes for the meetings of 1) October 11, 2016 (special) and 2) October 11, 2016 (regular).

Contact: Dawn G. Abrahamson, City Clerk (707) 648-4528
dawn.abrahamson@cityofvallejo.net

B. PAYMENT OF CLAIMS - SEPTEMBER 2016

Recommendation: By motion, ratify the payment of claims totaling \$5,824,054.26 for the period September 1, 2016, through September 30, 2016.

Contact: Ron Millard, Finance Director, (707) 649-3559
ron.millard@cityofvallejo.net

C. **ADOPT A RESOLUTION AWARDED CONSTRUCTION CONTRACT TO R & R MAHER CONSTRUCTION COMPANY, INC., FOR CDBG WINCHESTER STREET CONCRETE REHABILITATION PROJECT IN THE AMOUNT OF \$307,094**

Recommendation: Adopt a Resolution approving the project plans and specifications for the CDBG Winchester Street Concrete Rehabilitation Project, and authorizing the City Manager to execute a construction contract in the amount of \$307,094 to R & R Maher Construction Company, Inc., of Vallejo, CA as the lowest responsive and responsible bidder, in accordance with the approved plans and specifications.

Contact: David A. Kleinschmidt, Public Works Director, (707) 648-4301
david.kleinschmidt@cityofvallejo.net

D. **AUTHORIZE THE CITY MANAGER TO EXECUTE A PURCHASE AGREEMENT IN THE AMOUNT OF \$155,985.35 FOR THE PURCHASE AND INSTALLATION OF PUBLIC SAFETY RADIO EQUIPMENT, PURSUANT TO THE SOLE SOURCE EXCEPTION TO COMPETITIVE BIDDING**

Recommendation: Authorize the City Manager to sign a purchase agreement in the amount of \$155,985.35 for the purchase and installation of public safety radio equipment from Day Wireless, as a sole source exception to competitive bidding pursuant to VMC 3.20.080(A)(3).

Contact: Gregory Taylor, Chief Information Officer, (707) 648-4468
gregory.taylor@cityofvallejo.net

E. **ADOPT A RESOLUTION EXPRESSING THE CITY OF VALLEJO'S SUPPORT IN RECOGNIZING OCTOBER AS NATIONAL BULLYING PREVENTION MONTH**

Recommendation: Adopt a resolution expressing the City of Vallejo's support in recognizing October as National Bullying Prevention Month.

Contact: Councilmember McConnell, (707) 648-4135
Robert.McConnell@cityofvallejo.net

F. **ADOPT A RESOLUTION RATIFYING AND APPROVING THE IMPLEMENTATION OF A SIDE LETTER OF AGREEMENT BETWEEN THE CITY OF VALLEJO AND THE INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS, LOCAL 1245, AFL-CIO REGARDING ALTERNATIVE RETIREMENT HEALTH SAVINGS PROGRAMS FOR ELIGIBLE RETIREE ANNUITANTS**

Recommendation: Adopt a resolution to ratify and approve the implementation

of the Side Letter of Agreement ("SLA") between the City of Vallejo ("City") and the International Brotherhood of Electrical Workers, Local 1245, AFL-CIO (IBEW) regarding alternative retirement health savings programs for eligible retiree annuitants.

Contact: Jasmin Loi, Human Resources Director, (707) 648-4317
jasmin.loi@cityofvallejo.net

G. **SECOND READING AND ADOPTION OF AN ORDINANCE AMENDING SECTION 2.60.340 OF THE VALLEJO MUNICIPAL CODE REGARDING ADMINISTRATION OF OFFICIAL SALARY PLAN INVOLVING CHANGE IN PAY WHEN EMPLOYEES PROMOTE**

Recommendation: By motion, hold second reading and adopt an Ordinance amending Section 2.60.340 of the Vallejo Municipal Code to reflect that when an employee is promoted, the employee shall be placed at step one of the new salary range, or placed at that salary step which is a minimum five percent salary increase for the employee, whichever is the greater, not to exceed the top step of the new salary range.

Contact: Jasmin Loi, Human Resources Director (707) 648-4137
Jasmin.Loi@cityofvallejo.net

8. **ACTION CALENDAR**

NOTICE: Members of the public wishing to address the Council on Action Calendar Items are requested to submit a completed speaker card to the City Clerk. Each speaker is limited to five minutes pursuant to Vallejo Municipal Code Section 2.02.420.

A. **PUBLIC HEARING AND ADOPTION OF A RESOLUTION APPROVING THE 2015 URBAN WATER MANAGEMENT PLAN**

Recommendation: Hold the Public Hearing and take public input, and adopt a Resolution approving and adopting the 2015 Urban Water Management Plan (UWMP), which includes the Water Shortage Contingency Plan and Year 2020 Water Use Target, as prepared or as modified after the hearing as directed by the City Council.

Contact: David A. Kleinschmidt, Public Works Director, (707) 648-4301
David.Kleinschmidt@cityofvallejo.net

B. **ADOPT THREE RESOLUTIONS IMPLEMENTING THE RETIREE HEALTH SECURITY PLAN (RHSP) BENEFIT FOR THE IBEW BARGAINING UNIT: 1) AUTHORIZING THE CITY MANAGER TO EXECUTE A PARTICIPATION AGREEMENT ; 2) FIXING THE EMPLOYER'S CONTRIBUTION FOR IBEW EMPLOYEES AND ANNUITANTS UNDER THE PUBLIC EMPLOYEES' MEDICAL AND HOSPITAL CARE ACT (P.E.M.H.C.A) AND 3) MODIFYING**

THE MECHANISM TO PAY RETIREES A \$300 PER MONTH MEDICAL BENEFIT.

Recommendation:

Adopt the following attached resolutions:

1. Authorizing the City Manager to execute a Participation Agreement between the City of Vallejo and the Operating Engineers Local Union No. 3 Public Employees and Miscellaneous Health and Welfare Trust ("Trust"), and all other necessary documents, to allow eligible members of the International Brotherhood of Electrical Workers, Local 1245, AFL-CIO ("IBEW") to participate in the Trust's Retiree Health Security Plan ("RHSP").
2. Under the Public Employees' Medical and Hospital Care Act ("PEMHCA") only with respect to members of the bargaining unit represented by IBEW, fixing the City's contribution for employees and the City's contribution for annuitants.
3. Modifying the mechanism to pay the \$300 medical benefit to retired annuitants.

Contact: Jasmin Loi, Human Resources Director (707)648-4317

Jasmin.Loi@cityofvallejo.net

9. INFORMATION CALENDAR

10. CITY MANAGER'S REPORT

11. CITY ATTORNEY'S REPORT

A. QUARTERLY REPORT FOR FISCAL YEAR 2016/2017, FIRST QUARTER (JULY 1 THROUGH SEPTEMBER 30, 2016)

Recommendation: Informational item only. No action is required.

Contact: Claudia Quintana, City Attorney (707) 648-4545

Claudia.Quintana@cityofvallejo.net

12. COMMUNITY FORUM

Anyone wishing to address the Council on any matter for which another opportunity to speak is not provided on the agenda, and which is within the jurisdiction of the Council to resolve, is requested to submit a completed speaker card to the City Clerk. When called upon, each speaker should step to the podium, state his /her name, and address for the record. Each speaker is limited to three minutes pursuant to Vallejo Municipal Code Section 2.20.300.

13. REPORT OF THE PRESIDING OFFICER AND MEMBERS OF THE CITY COUNCIL

14. CLOSED SESSION

15. ADJOURNMENT

ADDITIONAL CITY INFORMATION

Members of the public can:

Like us on Facebook (www.facebook.com/cityofvallejo)

Sign up to receive City Communications via e-mail (www.cityofvallejo.net/living/connect)

Sign up to receive City updates and get connected with your neighbors on Nextdoor (www.nextdoor.com)

I, Dawn Abrahamson, City Clerk do hereby certify that I have caused a true copy of the above notice and agenda to be delivered to each of the members of the Vallejo City Council, at the time and in the manner prescribed by law and that this agenda was posted at City Hall, 555 Santa Clara Street, CA at 5:00 p.m., Thursday, October 20, 2016.

Dated: Thursday, October 20, 2016



Dawn G. Abrahamson, City Clerk

Appendix I. UWMP Adoption Resolution

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RESOLUTION NO. 16-115 N.C.

APPROVING THE 2015 URBAN WATER MANAGEMENT PLAN

WHEREAS, the City is an urban supplier providing water to over 37,000 customer connections and is therefore subject to the Urban Water Management Planning Act, California Water Code section 10610 et. seq., requiring all urban water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet annually to update their Urban Water Management Plan (UWMP) at least every five years and to submit the UWMP to the California Department of Water Resources; and

WHEREAS, an UWMP is required for a water supplier to be eligible for state-administered grants, loans, and drought assistance; and

WHEREAS, the City is required to adopt a Water Shortage Contingency Plan as part of an Urban Water Management Plan; and

WHEREAS, the Water Conservation Act of 2009 required water suppliers to calculate and report 2015 and 2020 Water Use Targets in the UWMP, as well as assess progress toward meeting the 2020 target; and

WHEREAS, the City has updated its UWMP in compliance with state law and consistent with the 2015 UWMP Guidebook for Urban Water Suppliers issued by the California Department of Water Resources; and

WHEREAS, the UWMP was available for public review and comment beginning October 1, 2016; and

WHEREAS, a properly noticed public hearing was held on October 25, 2016, to receive oral or written statements regarding the UWMP; and

WHEREAS, the City Council finds that the adoption and implementation of the Urban Water Management Plan, including the Water Shortage Contingency Plan, and the 2015 and 2020 Water Use Targets, will meet the existing and projected future water demand through 2040 during normal years and during multiple dry years either through existing water supplies or through the implementation of the Water Shortage Contingency Plan.

NOW THEREFORE, BE IT RESOLVED that the City Council of the City of Vallejo hereby approves and adopts the City of Vallejo's 2015 Urban Water Management Plan, dated September 2016, as prepared or as modified after the hearing as directed by the City Council.


BE IT FURTHER RESOLVED that the City Manager or his designee is directed to submit the adopted plan to the California Department of Water Resources, the California State Library and to any city or county in which the City of Vallejo provides water within 30 days of the date of adoption.

Adopted by the City Council of the City of Vallejo at a regular meeting held on October 25, 2016 with the following vote.

AYES: Mayor Davis, Vice Mayor Verder-Aliga, Councilmembers Dew-Costa, McConnell, Miessner, and Sampayan
NOES: None
ABSENT: Councilmember Malgapo
ABSTAIN: None


OSBY DAVIS, MAYOR

ATTEST:


DAWN G. ABRAHAMSON, CITY CLERK



Prepared by: RMC Water and Environment

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