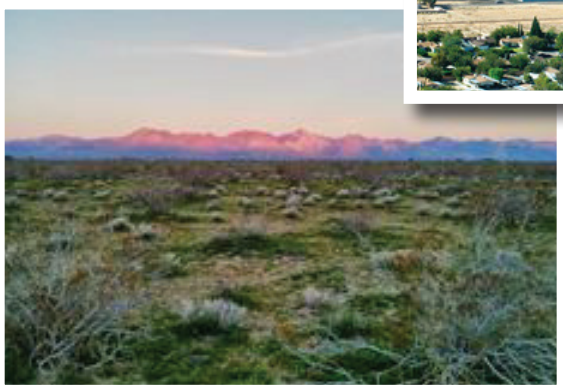
Indian Wells Valley Water District

2015 Urban Water Management Plan

FINAL



Prepared By:

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June 2016

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INDIAN WELLS VALLEY WATER DISTRICT
FINAL 2015 URBAN WATER MANAGEMENT PLAN

JUNE 2016

Prepared by

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For Electronic Submission To

California Department of Water Resources
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INDIAN WELLS VALLEY WATER DISTRICT
Ridgecrest, California

2010 URBAN WATER MANAGEMENT PLAN
CONTACT SHEET

Date plan submitted to the Department of Water Resources:	**June 20, 2016**
Name of person preparing this plan:	**David F. Scriven** **Krieger & Stewart, Incorporated** **IWVWD Consulting Engineer**
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The Water Supplier is a:	**Water District**
The Water Supplier is a:	**Retailer**
Utility services provided by the Water Supplier include:	**Domestic water supply**
Is this Agency a Bureau of Reclamation Contractor?	**No**
Is this Agency a State Water Project Contractor?	**No**

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SECTION 1

PLAN PREPARATION

SECTION 1
PLAN PREPARATION

A. BASIS FOR PREPARING AN URBAN WATER MANAGEMENT PLAN

Water Code

10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually…

10621. (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero, except as provided in subdivision (d).

(d) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

Indian Wells Valley Water District (IWVWD or the District) has prepared this 2015 Urban Water Management Plan in accordance with the Urban Water Management Planning Act (UWMP Act), as set forth in Part 2.6 of Division 6 of the California Water Code, and the Water Conservation Act of 2009, as set forth in Part 2.55 of Division 6 of the California Water Code. The District serves greater than 3,000 active water service connections and supplies more than 3,000 acre-feet (AF) of water per year, and therefore meets the definition of an urban water supplier pursuant to California Water Code (CWC) Section 10617, cited above. As an urban water supplier, IWVWD is required to prepare and adopt an Urban Water Management Plan (UWMP) every five years and to submit same to the California Department of Water Resources (DWR). Copies of the applicable sections of the CWC are included in **Appendix A** herein.

The District operates a public water system (PWS), as defined in California Health and Safety Code Section 116275(h), which defines a PWS as "a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year." PWSs are regulated by the State Water Resources Control Board, Division of Drinking Water. An urban water supplier may operate one or more PWS. IWVWD operates a single PWS.

B. COORDINATION

Water Code

10620. (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).
(d) (2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.
(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

10621. (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero, except as provided in subdivision (d).

(d) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

IWVWD has actively encouraged community participation in its urban water management planning efforts since its first Urban Water Management Plan (UWMP) was developed in 1985. The District has adopted an updated version of its UWMP of same every five years since, which reflected then-current conditions within the District's boundaries, including projected water demands.

This 2015 UWMP supersedes the District's 2010 UWMP and fulfills the requirements of the Urban Water Management Planning Act and the Water Conservation Act of 2009, also known as SB X7-7, as amended. Copies of these sections of the CWC are included in **Appendix A** herein.

On March 2, 2016, the District notified the City of Ridgecrest, County of Kern, County of San Bernardino, Inyokern Community Services District, and China Lake Naval Air Weapons Station about the District's review of its UWMP and its intent to revise said UWMP in accordance with all applicable requirements. These notices are also referred to as 60-day notices, copies of which are included in **Appendix B** herein.

On May 2, 2016, a draft copy of the 2015 UWMP was made available for public review at the District's office, located at 500 West Ridgecrest Boulevard, Ridgecrest, California 93556, during regular business hours, and on the District's website at www.iwvwd.com/public-documents/public-reports/. Notice of the Draft 2015 UWMP availability and upcoming public hearing was mailed on May 2, 2016 to City of Ridgecrest, County of Kern, County of San Bernardino, Inyokern Community Services District, and China Lake Naval Air Weapons Station. Public notice of the public hearing was published in The Daily Independent on May 25, 2016 and June 1, 2016. Copies of the notices are included in **Appendix B** herein.

On June 13, 2016, the District held a public hearing to receive comments on, and consider adoption of, its Draft 2015 UWMP. All comments received prior to and during the public hearing were taken into consideration prior to adoption of the District's 2015 UWMP. Following the public hearing, the District's Board of Directors adopted the UWMP.

Table 1 summarizes the efforts that IWVWD has taken to include various agencies and citizens in its UWMP planning process.

TABLE 1
COORDINATION WITH APPROPRIATE AGENCIES

Entities	Participated in UWMP Development	Commented on Draft	Attended Public Meetings	Contacted for Assistance	Sent 60-Day Notice	Sent Notice of Public Hearing	Sent Copy of Final 2015 UWMP
City of Ridgecrest					✓	✓	✓
Inyokern CSD					✓	✓	✓(2)
Kern Council of Governments	✓			✓			
Kern County Planning Department					✓	✓	✓
China Lake Naval Air Weapons Station					✓	✓	✓(2)
San Bernardino County Planning					✓	✓	✓
General Public	✓		✓		✓(1)	✓(1)	✓(1)

(1) Available for public review at the District's office and posted on the District's website at www.iwvwd.com/public-documents/public-reports/.

(2) Sent notice of Final 2015 UWMP availability.

C. PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

Water Code

10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon…

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

10644. (a) (1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption…

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

The District prepared this UWMP in 2015 and 2016. This UWMP was adopted by the District's Board of Directors at a public hearing on June 13, 2016 and submitted to the California Department of Water Resources (DWR) and the California State Library within 30 days of Board approval. A copy of the signed Resolution Adopting the 2015 UWMP is included in **Appendix C** herein. Copies of documentation of submittal of the UWMP to DWR and the California State Library are included in **Appendix D** herein.

Within 30 days of adoption by the Board, copies of the UWMP were also submitted to the County of Kern, County of San Bernardino, City of Ridgecrest, and other interested parties. The final, adopted 2015 UWMP, including any adopted amendments, is available for public review during normal business hours at the District's office located at 500 West Ridgecrest Boulevard, Ridgecrest CA 93556 and is also available online at www.iwvwd.com/public-documents/public-reports/.

In addition to the UWMP Act and the Water Conservation Act of 2009, the District, in preparing this UWMP, referenced guidance available from DWR, including that set forth in the document titled *2015 Urban Water Management Plans Guidebook for Urban Water Suppliers*, prepared by DWR, dated March 2016, and referred to herein as the DWR Guidebook.

This 2015 UWMP will be implemented as set forth herein. Since UWMPs are due for revision every five years, this UWMP is expected to be in effect until the year end 2020, at which time the District's 2020 UWMP will be developed and adopted.

D. WATER MANAGEMENT TOOLS AND OPTIONS

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

To facilitate effective and efficient management of water supplies, and in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009 (copies of applicable sections are included in **Appendix A**), the District has prepared this 2015 UWMP. This UWMP includes background information regarding groundwater supply and historic water use within the District's service area, as well as water management tools and options that will enable the District and area residents to maximize efficient use of the limited available water resources, reduce per capita water use, and decrease the potential future need to import water from other regions. Refer also to **Section 3.C.** and **Section 7** herein. The District will implement its UWMP as described herein.

A checklist citing the location of UWMP content required by the California Water Code (CWC) is included in **Appendix E** herein for DWR's use in its review of this 2015 UWMP. Additionally, the tables included herein are specific to this 2015 UWMP, and the standardized tables required by DWR are included in **Appendix F** herein.

SECTION 2

SYSTEM DESCRIPTION

SECTION 2
SYSTEM DESCRIPTION

Water Code

10631. A plan shall be adopted in accordance with this chapter that shall do all of the following:
(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

A. DISTRICT FORMATION AND PURPOSE

IWVWD was organized in 1955 in accordance with the State of California County Water District Law (California Water Code Section 30000 *et seq*.), with the powers and authorities set forth in said code, for the purpose of providing domestic water supplies within its service area.

The District is empowered to manage water resources and to construct, operate, maintain, repair, and replace water system facilities as needed to provide water service in compliance with applicable standards and regulations. The District routinely constructs new facilities, maintains them, and replaces them as necessary to maintain adequate, reliable, and safe water service to its customers.

B. SERVICE AREA DESCRIPTION

The District is situated in the Indian Wells Valley, which lies in the northern portion of the Mojave Desert, southeasterly of the Sierra Nevada, and southerly of the Owens Valley. As the primary purveyor of public water supplies in the Ridgecrest area of Kern and San Bernardino Counties (see **Figure 1**, Vicinity Map, and **Figure 2**, Service Area Boundary), the District carries a significant portion of the responsibility for managing the area's limited water resources.

The District's service area encompasses approximately 38 square miles of the 360 square-mile floor of the Indian Wells Valley, as depicted on **Figure 2**. Ground surface elevations within the

District's service area range from approximately 2,250 feet above sea level to approximately 3,200 feet above sea level.

C. SERVICE AREA POPULATION

The District currently serves a population of approximately 33,476 people through approximately 11,677 active service connections. The population estimate (for 2010) and the population projections (for years 2020, 2035, and 2040) for the portion of the District's service area within Kern County were provided by the Kern Council of Governments (KernCOG) and are based on 2010 Census data. The population estimate for 2015 and the population projections for years 2025 and 2030 were estimated based on the data and projections provided by KernCOG.

Population estimates and projections for the portion of the District's service area within San Bernardino County are based on the number of active District connections in that area (83), as well as the average number of persons per household (2.57) for the City of Ridgecrest, obtained from 2014 U.S. Census Bureau data.

Estimated past, current, and projected populations within the District's service area are set forth in **Table 2**. As shown therein, the District's service area population is projected to increase from approximately 33,476 currently to approximately 40,277 by 2040.

TABLE 2
ESTIMATED POPULATION – PAST, CURRENT, AND PROJECTED

Service Area	2010	2015	2020	2025	2030	2035	2040
Kern County	31,135	33,256	35,349	36,233	37,139	38,046	40,057
San Bernardino County	220	220	220	220	220	220	220
Total Service Area Population	**31,355**	**33,476**	**35,569**	**36,453**	**37,359**	**38,266**	**40,277**

D. SERVICE AREA CLIMATE

Temperatures in the District's service area often exceed 100 degrees Fahrenheit (°F) during summer months, with an annual average daily temperature of approximately 80°F. Annual rainfall averages less than 5 inches; most rainfall occurs between November and March, while some thundershowers occur during the summer monsoons.

The maximum and minimum monthly average temperatures as well as monthly average evapotranspiration rates (ETo) within the District's service area are shown in **Table 3**.

TABLE 3
CLIMATE

	Jan	Feb	Mar	Apr	May	June	
Monthly Average Reference ETo (inches)	1.86	2.80	4.65	6.00	8.06	9.00	
Average Rainfall (inches)	0.74	0.95	0.55	0.17	0.07	0.02	
Average Maximum Temperature (°F)	59.6	64.8	70.3	77.7	87.0	96.7	
Average Minimum Temperature (°F)	30.8	34.6	38.7	44.3	52.9	60.5	
	July	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**Annual**
Monthly Average Reference ETo (inches)	9.92	8.68	6.60	4.34	2.70	1.86	66.47
Average Rainfall (inches)	0.16	0.22	0.20	0.10	0.38	0.59	4.17
Average Maximum Temperature (°F)	102.7	101.2	94.2	83.2	69.0	59.7	80.5
Average Minimum Temperature (°F)	66.2	64.6	58.1	48.2	37.3	30.2	47.2

NOTE: Rainfall and temperature data were obtained from the Inyokern, California Station (044278), as provided on the National Weather Service Western Regional Climate Center website at http://www.wrcc.dri.edu for the period of record November 17, 1940 to December 27, 2012. Evapotranspiration rate (ETo) data are based on the monthly average reference ETo for Zone 17, as provided by the California Irrigation Management Information System (CIMIS) on their website, http://wwwcimis.water.ca.gov. Copies of the downloaded data are provided in **Appendix H**.

The Indian Wells Valley watershed consists of approximately 860 square miles; nearly 500 square miles in the mountains and hills and approximately 360 square miles on the valley floor. Average precipitation within the watershed ranges from approximately 2 to 5 inches per year, with the surrounding mountains receiving varying quantities of rainfall up to 10 inches per year. The Indian Wells Valley is bounded by the Sierra Nevada on the west, the Coso Range on the north, the Argus Range on the east, and the El Paso Mountains on the south. Prior investigations of the Indian Wells Valley Groundwater Basin[1] have estimated quantities of total Basin recharge ranging from 5,000 to 11,000 acre-feet per year (AF/yr) from precipitation.

[1] As summarized in the report *Installation and Implementation of a Comprehensive Groundwater Monitoring Program for the Indian Wells Valley, California*, dated April 2010, prepared by Indian Wells Valley Cooperative Groundwater Technical Advisory Committee and Geochemical Technologies Corporation.

E. OTHER DEMOGRAPHIC FACTORS

The District's service area is located along the southerly border of China Lake Naval Air Weapons Station (referred to herein as China Lake NAWS or the Navy). As the largest single employer in the area, the number of personnel employed by the Navy has a substantial influence on the number of people residing within the District's service area. Diminished employment by the Navy largely resulted in a decrease in population within the District's service area during the period 1990 through 2000, and augmented employment by the Navy later resulted in an increase in population in the District's service area during the period 2000-2010. The District's 2010 population of 31,355 increased to 33,476 by 2015.

SECTION 3

BASELINES AND TARGETS

SECTION 3
BASELINES AND TARGETS

Water Code

10608.20. (e) An urban retail water supplier shall include in its urban water management plan due in 2010…the 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.

(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

(h)(1) The department, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:

(A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.

(B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.

A. BASE DAILY PER CAPITA WATER USE (BASELINE)

Water Code

10608.12. (b) "Base daily per capita water use" means any of the following:

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

Base daily per capita water use (also referred to herein as baseline) is defined as set forth in California Water Code (CWC) Section 10608.12(b)(1). The District's baseline was determined in its 2010 UWMP in accordance with methodologies developed by the California Department of

Water Resources (DWR), pursuant to Water Code Section 10608.20(h)(1), that are set forth in the document, *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use*, dated October 1, 2010, referred to herein as DWR's *Methodologies*.

A revised version of the *Methodologies* document, titled *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use, Final Draft*, dated February 2016 (*2016 Methodologies*), has been made available by DWR; however, the requirements for determining the baseline and the urban water use targets have not changed since the time of the 2010 UWMP.

Pursuant to DWR's *Methodologies* and *2016 Methodologies*, calculating baseline water use involves four steps:

1. Estimate service area population for each year in the base period.

2. Calculate gross water use for each year in the base period, and express gross water use in gallons per day.

3. Divide gross water use by service area population for each year in the base period to calculate daily per capita water use.

4. Calculate the average per capita water use by summing the values calculated in step 3 above and dividing by the number of years in the base period. The result is the baseline.

The District had selected the ten-year base period of January 1, 1998 through December 31, 2007. The District's service area historical population data was based on data provided by the Kern Council of Governments (KernCOG) during preparation of the District's 2010 UWMP. The District's water use in acre-feet per year (AF/yr) is based on the District's water production records. Using this data, the District's baseline was determined to be 264 gallons per capita per day (gpcd), calculated as shown in **Table 4**.

TABLE 4 INDIAN WELLS VALLEY WATER DISTRICT'S BASELINE WATER USE				
	Estimated Service Area Population[1]	Gross Water Use		
		AF/yr[2]	gpd[3]	gpcd[4]
Year	A	B	C (B x 43560 x 7.48/365)	D (C ÷ A)
1998	28,907	8,699	7,765,438	269
1999	28,714	8,154	7,278,926	253
2000	28,522	8,331	7,436,931	261
2001	28,772	8,447	7,540,482	262
2002	29,024	8,865	7,913,623	273
2003	29,279	8,605	7,681,526	262
2004	29,535	8,992	8,026,993	272
2005	29,794	8,543	7,626,179	256
2006	30,056	8,865	7,913,623	263
2007	30,319	9,077	8,102,871	267
Baseline *(Average of Gross Water Use for 1998-2007)*				***264***

(1) Historical population based on data provided by KernCOG
(2) Acre-feet per year, based on District records of gross well production
(3) Gallons per day
(4) Gallons per capita per day

B. URBAN WATER USE TARGET

In accordance with CWC Section 10608.20(g), an urban retail water supplier may update its 2020 water use target in its 2015 UWMP and may make this update using a different target method than was used in 2010. IWVWD has elected not to update its water use target; therefore, the water use target and interim water use target described herein are the same as those set forth in IWVWD's 2010 UWMP.

The District's urban water use target was determined during preparation of its 2010 UWMP and is based on one of the four available methods described in Water Code Section 10608.20(b). The District had selected DWR's Provisional Method 4 (herein referred to as Method 4) for determining its urban water use target.

Method 4, which is set forth in Appendix B of DWR's *2016 Methodologies* document, has not changed since preparation of IWVWD's 2010 UWMP. Method 4 defines an urban water use target as the baseline minus total water savings assumed due to metering of unmetered water connections and achieving water conservation measures in three water use sectors, as described below, by using the following equation:

Urban Water Use Target	=	Baseline	—	Total Water Savings

Total water savings is equal to the sum of metering savings, indoor residential savings, commercial/industrial/institutional (CII) savings, and landscape and water loss savings.

DWR has developed a calculator for use in determining the total water savings and urban water use target via Method 4. Printouts of the user input page and the target calculation page that were prepared for the 2010 UWMP are included on the following two pages.

The calculator required the user to input the following information (District information):

- Baseline period (1998-2007)
- Baseline water use (264 gpcd)
- Service area population in midpoint year of baseline period (29,024)
- Number of unmetered connections in midpoint year of baseline period (0)
- Water use by unmetered connections in midpoint year of baseline period (0)
- CII water use in midpoint year of baseline period (1,995 acre-feet)

Using Method 4, the District's urban water use target is 214 gpcd, rounded from 214.2 gpcd.

User Input -- Provisional Method 4 Target

Target Calculation Option (select one): *	Calculate Targets Using Default Indoor Residential Savings
Water Supplier Name: *	Indian Wells Valley Water District

10-15 Year Baseline Water Use Information

Baseline Period: *	1998-2007	Midpoint of Baseline Period:	2002
Baseline Water Use GPCD: *	264.0	Population in Midpoint Year: *	29,024

5 Year Baseline Water Use Information

Baseline Period: *	2005-2009		
Baseline Water Use GPCD: *	256.0	95% of 5-Year Baseline GPCD:	243.2

Unmetered Connections

Number of Unmetered Connections in 2002: *	0
Water Use By Unmetered Connections In 2002: *	0 Acre-Feet

Baseline CII Water Use[1]

CII Water Use in 2002: *	1,995 Acre-Feet
Per Capita Use:	61.4 GPCD

[1]CII = Commercial, Industrial, Institutional.

If you have chosen to calculate targets using the Default Indoor Residential Savings, you do not need to complete the remaining tables.

Note: CII Water Use in 2002 is based on the District's estimate of non-residential water use (approximately 23% of total water production) within its service area.

Target Calculation -- Provisional Method 4 Target

Step 1. Calculation of Landscape Water Use and System Water Loss

Urban Supplier	1998-2007 Baseline GPCD	—	Assumed Indoor Residential per Capita Water Use GPCD	—	CII per Capita Water Use GPCD	=	Estimated Landscape Water Use and System Water Loss GPCD
Indian Wells Valley Water District	264.0		70.0		61.4		132.6

Step 2. Calculation of Savings Using BMP Calculators

(Alternate) STEP 2 BEING USED TO CALCULATE TARGET

Urban Supplier	Indoor Residential Savings Calculators					+	Metering Savings BMP 1.3	+	CII Savings BMP 4	+	Land-scape + Water Loss Savings 21.6%	=	Total Savings GPCD
	Single Family Toilets	Multi Family Toilets	Resi-dential Washers	Resi-dential Showers	Total IR Savings								
Indian Wells Valley Water District	XXXX	XXXX	XXXX	XXXX	XXXX		XXXX		XXXX		XXXX		XXXX

(Alternate) Step 2. Calculation of Savings Using Default Indoor Residential Savings

Urban Supplier	Default Resi-dential Indoor Savings	+	Metering Savings BMP 1.3	+	CII Savings BMP 4 (a)	+	Land-scape + Water Loss Savings 21.6% (b)	=	(alt) Total Savings GPCD
Indian Wells Valley Water District	15.0		0.0		6.1		28.6		49.8

Step 3. Calculation of Urban Water Use Targets

Urban Supplier	1998-2007 Baseline GPCD	—	Total Savings GPCD	=	**Computed 2020 Target GPCD**	⇨	**Less Than 95% of 5-Year Baseline**	⇨	**Final 2020 Target**	⇨	**Final 2015 Target**
Indian Wells Valley Water District	264.0		49.8		**214.2**		**TRUE**		**214.2**		**239.1**

(a) In accordance with DWR's Method 4 calculator, CII water savings is assumed to be 10 percent of baseline CII water use, in gpcd.

(b) Landscape irrigation and water loss savings is based on a 21.6% reduction in estimated landscape water use and system water loss. The 21.6% reduction factor was determined by DWR and applies to all water suppliers.

C. MINIMUM WATER USE REDUCTION REQUIREMENT

> *Water Code*
>
> **10608.12.** (b) "Base daily per capita water use" means any of the following:
> (3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.
>
> **10608.22.** Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12……

In accordance with DWR's *Methodologies*, a five-year baseline was calculated to determine whether the urban water use target meets the minimum water use reduction requirement pursuant to Water Code Section 10608.22. These calculations have not changed during preparation of this UWMP, and they are the same as those included in IWVWD's 2010 UWMP.

The following two steps were used to determine the minimum water use reduction requirement:

1. Calculate baseline water use using a continuous five-year period ending no earlier than December 31, 2007 and no later than December 31, 2010.

2. Multiply the result from the first Step by 0.95. The 2020 urban water use target cannot exceed this value. If the urban water use target is greater than this value, reduce the target to this value.

The District selected a five-year base period of January 1, 2005 through December 31, 2009. The District's five-year baseline water use is calculated as shown in **Table 5**.

TABLE 5 INDIAN WELLS VALLEY WATER DISTRICT'S FIVE-YEAR BASELINE WATER USE				
	Estimated Service Area Population[1]	Gross Water Use		
		AF/yr[2]	gpd[3]	gpcd[4]
Year	A	B	C (B x 43560 x 7.48/365)	D (C ÷ A)
2005	29,794	8,543	7,626,179	256
2006	30,056	8,865	7,913,623	263
2007	30,319	9,077	8,102,871	267
2008	30,585	8,496	7,584,223	248
2009	30,853	8,413	7,510,131	243
Five-Year Baseline *(Average of Gross Water Use for 2005-2009)*				***256***

(1) Historical population based on data provided by KernCOG
(2) Acre-feet per year, based on District records of gross well production
(3) Gallons per day
(4) Gallons per capita per day

The calculation in **Table 5** above yields a five-year baseline water use of 256 gpcd. In accordance with step 2 above, multiplying the five-year baseline by 0.95 yields a value of 243 gpcd.

Pursuant to Water Code Section 10608.22, "…an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12". The District's urban water use target is 214 gpcd, which is less than the 243 gpcd result described above, and therefore meets the minimum water use reduction requirement set forth in Water Code Section 10608.22.

D. INTERIM URBAN WATER USE TARGET

> *Water Code*
>
> **10608.12.** (j) "Interim urban water use target" means the midpoint between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020.

The interim urban water use target is defined in Water Code Section 10608.12(j) and is the midpoint between an urban retail water supplier's baseline and its urban water use target for 2020. Urban retail water suppliers who meet their interim urban water use target by December 31, 2015 are generally considered to be on track to meet their urban water use target by December 31, 2020.

Based on the District's baseline of 264 gpcd and its urban water use target of 214 gpcd, the District's interim urban water use target is 239 gpcd.

Based on completion of the SB X7-7 Verification Form provided by DWR, a copy of which is included in **Appendix G** herein, IWVWD's water use for compliance year 2015 was 189 gpcd, and the District has met its interim urban water use target of 239 gpcd. Further, the District's water use is below its urban water use target of 214 gpcd. Therefore, the District has achieved compliance with its interim water use target required by December 31, 2015, and it is on track to meet its urban water use target required by December 31, 2020.

SECTION 4

SYSTEM WATER USE

SECTION 4
SYSTEM WATER USE

A. PAST, CURRENT, AND PROJECTED WATER DEMANDS

Water Code

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

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

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

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

(3) (A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.

(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

Currently, the District's service area consists of approximately 33,476 residents, a small commercial and industrial sector, a small institutional sector, and no agricultural connections. Based on 2015 data, approximately 76% of the water produced by the District is used by single family residential services, approximately 9% is used by multi-family residential services, and approximately 15% is used by commercial/institutional services.

Table 6 is arranged by customer type and shows current and projected numbers of customer connections and quantities of water delivered. **Table 7** lists quantities of water for uses other than

deliveries to customers, and **Table 8** shows the District's total water use for 2015 through 2040 as the sum of **Tables 6 and 7**.

TABLE 6
CURRENT AND PROJECTED WATER DELIVERIES (AF/YR)

Year	Metered/ Unmetered[1]	Water Use Sectors	Single Family[2]	Multi-Family[3]	Commercial/ Institutional	Total
2015[4]	Metered	# of Accounts	10,700	342	635	11,677
		Deliveries	4,440	547	877	5,864
2020	Metered	# of Accounts	11,403	372	619	12,394
		Deliveries[5]	6,060	718	1,196	7,974
2025	Metered	# of Accounts	11,686	381	635	12,702
		Deliveries[5]	6,211	735	1,226	8,172
2030	Metered	# of Accounts	11,976	390	651	13,017
		Deliveries[5]	6,366	754	1,256	8,376
2035	Metered	# of Accounts	12,266	400	667	13,333
		Deliveries[5]	6,520	772	1,287	8,579
2040	Metered	# of Accounts	12,911	422	701	14,034
		Deliveries[5]	6,863	813	1,354	9,030

(1) All of the District's service connections are metered.
(2) Includes deliveries for lower-income single family residences. See also **Section 3.F.**
(3) Includes deliveries for lower-income multi-family residences. See also **Section 3.F.**
(4) Data for 2015 is based on District records for calendar year 2015.
(5) Deliveries for 2020 through 2040 are based on projected population (see **Table 2 in Section 2**) and the District's urban water use target (gpcd).

TABLE 7
ADDITIONAL WATER USES AND LOSSES (AF/YR)

Water Use	2015	2020	2025	2030	2035	2040
System Water Losses[1]	273	273	273	273	273	273
Well Maintenance[2]	8	8	8	8	8	8
Saline Barriers	0	0	0	0	0	0
Groundwater Recharge	0	0	0	0	0	0
Conjunctive Use	0	0	0	0	0	0
Raw Water	0	0	0	0	0	0
Recycled Water	0	0	0	0	0	0
Total	**281**	**281**	**281**	**281**	**281**	**281**

(1) System water losses are based on the water audit prepared for the 2015 calendar year, and the assumption that they will remain consistent over the next 25 years.
(2) Well maintenance uses include water used during well flushing and other maintenance activities.

TABLE 8
TOTAL WATER USE (AF/YR)

Water Distributed	2015	2020	2025	2030	2035	2040
Sum of Tables 6 and 7	6,145	8,255	8,453	8,657	8,860	9,311

1. Residential Sector

The District's residential sector is comprised of its single family and multi-family customers. Based upon District records for 2015, its single family residential sector accounts for approximately 92% of the District's service connections and approximately 76% of water use within the District, while the District's multi-family residential sector accounts for approximately 3% of the District's service connections and approximately 9% of its total water use.

Numbers of accounts and quantities of water usage set forth in **Table 6** include accounts and usage for residential housing units needed for lower-income households, as required by Water Code Section 10631.1. See **Section 4.B.** for a discussion of water needed for lower-income housing units.

2. Commercial/Industrial Sector

The District has a complex mix of commercial customers, ranging from family restaurants, insurance offices, beauty shops, and gas stations to hotels, motels, shopping centers and high-volume restaurants, as well as other facilities that serve the non-resident population. The commercial sector has grown steadily each year, and some growth is expected to continue to occur over the next several years.

The District serves a small industrial sector, including information technology, supply distribution, servicing of industrial equipment, and some light manufacturing. The industrial sector has not grown much in the last decade or so, and is not expected to increase significantly over the next 25 years. The District estimates the number of industrial customers to be less than ten at this time. The District's Commercial/Industrial water use is included in the Commercial/Institutional category in **Table 6**.

3. Institutional/Governmental Sector

The District has a stable institutional/governmental sector, comprised primarily of local government, parks, schools, and other types of public facilities. This sector is not expected to increase significantly over the next 25 years. The District's Institutional/Governmental water use is included in the Commercial/Institutional category in **Table 6**.

4. Landscape/Recreational Sector

Landscape and recreational customer demand is expected to increase gradually at a rate of approximately 2% per year over the next 25 years, due primarily to continued growth in visitor-serving facilities. Increased efficiency and landscape conversions at existing parks, as well as the District's Ordinances 93, 98, 99, and 100 pertaining to water-efficient landscapes (copies included in **Appendix K**), should help offset new demand resulting from projected increases in this sector. Additionally, recycled water for irrigation use may become available in the foreseeable future, as described in **Section 5.G.** herein. Landscape/Recreational water use is included in the Commercial/Institutional category in **Table 6**.

B. WATER SUPPLIES FOR LOWER-INCOME HOUSING

> ***Water Code***
>
> **10631.1** (a) The water use projections required by Section 10631 shall include projected water use for single family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.

In accordance with Water Code Section 10631.1, this UWMP includes projected water use for residential housing needed for lower-income households. "Lower-income household" is defined in Health and Safety Code Section 50079.5 as persons and families whose income does not exceed the qualifying limits for lower-income families as established and amended from time to time pursuant to Section 8 of the United States Housing Act of 1937.

The *Regional Housing Needs Allocation Plan* was adopted by the Kern Council of Governments (KernCOG) on June 19, 2014 and approved by the California Department of Community Development on September 10, 2014 (RHNA Plan). Pursuant to the RHNA Plan, approximately 21.6% of households in the Ridgecrest area are considered lower-income households (11.8% very low income and 9.8% low income).

Based on the above, it is estimated that approximately 22% of households within the District's service area are lower-income households; therefore, approximately 22% of water for residential uses is needed for lower-income housing. The ratio of total water use that is projected as needed for residential housing for lower-income households to that for moderate income households is expected to vary over the next 25 years.

IWVWD has a civic and legal responsibility to provide water service to customers within its service area. IWVWD does not give priority to one residential area over another, and all residential customers are served equally during water shortage emergencies in terms of service and delivery. IWVWD does not deny water service to non-delinquent accounts. Water use priority does not differ based on income level, but is classified by type of use in accordance with the sectors listed in **Table 6** herein.

C. WATER USE REDUCTION PLAN

Water Code

10608.26. (a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.

(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.

(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20, for determining its urban water use target.

The District is located within an arid high desert region that typically receives less than five inches of rain annually. The District's location, in combination with the state of overdraft in the Indian Wells

Valley Groundwater Basin[2], has prompted the District to implement numerous water conservation programs over the years. More recently, the District has put forth additional conservation efforts in order to meet California's emergency regulations pertaining to current drought conditions.

On January 17, 2014, Governor Jerry Brown, prompted by record dry conditions in California, proclaimed a drought state of emergency. On April 25, 2014, the Governor issued a proclamation of a continued state of emergency based on drought conditions. Subsequently, in July 2014, the Office of Administrative Law approved emergency regulations mandating water conservation measures set forth by the State Water Resources Control Board (SWRCB).

2015 marked the fourth consecutive year in California's latest drought. On April 1, 2015, Governor Brown issued Executive Order B-29-15, finding that drought conditions persist and ordering that the SWRCB impose restrictions in order to achieve a statewide 25 percent reduction in potable urban water usage (as compared to usage in 2013) through February 28, 2016. The restrictions imposed by the SWRCB included a mandated conservation standard assigned to each water supplier. IWVWD has been assigned a water reduction standard of 36%, meaning that it is required to reduce water usage within its service area by that percentage as compared to usage in the same month in 2013.

On November 13, 2015, Governor Brown issued Executive Order B-36-15, declaring the ongoing drought conditions and calling for an extension to urban water use restrictions until October 31, 2016. In March 2016, the SWRCB issued draft adjusted conservation standards, and IWVWD's draft adjusted standard is 32%.

The District's ongoing conservation efforts, combined with increased efforts due to the state mandate, resulted in an overall decrease in water use within the District's service area over the past several years. As a result, the District has already surpassed both its interim water use target and its water use target.

[2] As set forth in the Groundwater Basin Maps and Descriptions section (2004) of DWR's *California's Groundwater Bulletin 118*, available on DWR's website at http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/6-54.pdf.

To continue reductions in urban per capita water use and remain on track to meet its urban water use target, the District will continue implementing its current water conservation programs, including those discussed in **Section 6** of this UWMP. Methods to decrease water use within the District's service area will not place a disproportionate burden on any customer sector.

The District held a public hearing on June 20, 2011 to discuss the District's implementation plan for reaching its urban water use target and any economic impacts thereof, as well as to consider adoption of its 2010 UWMP. Although the District's water use target has not changed since its 2010 UWMP, at its public hearing held on June 13, 2016, the District welcomed any community input regarding the implementation plan and its progress toward meeting said water use target.

Because the District has already reduced its urban per capita water usage (189 gpcd in compliance year 2015) to below its urban water use target of 214 gpcd, the District plans to continue with its current conservation efforts in order to remain at or below its urban water use target of 214 gpcd.

D. DISTRIBUTION SYSTEM WATER LOSSES

> ***Water Code***
>
> **10631.** A plan shall be adopted in accordance with this chapter that shall do all of the following:
>
> (e)(3)(A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.
>
> (e)(3)(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

Beginning with the 2015 UWMP, water suppliers are required to report their distribution system water losses based on a methodology and quantification worksheet developed by the American Water Works Association (AWWA). In future UWMPs, this distribution system water loss will be included for each of the five years preceding the UWMP.

Based on the AWWA methodology and worksheet, the District's distribution system water loss was approximately 243 acre-feet for 2015. A copy of IWVWD's water audit report for the 2015 calendar year is included in **Appendix I** herein.

SECTION 5

SYSTEM WATER SUPPLIES

SECTION 5
SYSTEM WATER SUPPLIES

A. WATER SUPPLY SOURCE

Water Code

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

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a).

(c) (1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

(A) An average water year.

(B) A single dry water year.

(C) Multiple dry water years.

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

The sole source of potable water supply for the District and for all water users in the Indian Wells Valley is groundwater extracted from the underlying Indian Wells Valley Groundwater Basin (also referred to herein as the Basin).

The District does not purchase or otherwise obtain water from a wholesale water supplier, and recycled water is not currently available to the District. The District expects that groundwater extracted from the Basin will continue to be its primary (and possibly only) source of water through the year 2040, and possibly beyond.

B. GROUNDWATER BASIN

Water Code

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

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

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

1. Basin Description

As stated in **Section 4.A.** above, the District extracts groundwater from the Indian Wells Valley Groundwater Basin (Basin) as its source of water supply. *California's Groundwater Bulletin 118* (2003), prepared by DWR, contains supplemental information that is updated as it becomes available, and data for the Basin was last updated in 2004. The Basin encompasses a surface area of 382,000 acres (597 square miles) within portions of Kern, Inyo, and San Bernardino Counties. The Sierra Nevada bound the Basin on the west, the Coso Range on the north, the Argus Range on the east, and the El Paso Mountains on the south.

Most reports specific to the Basin identify three primary geographic areas of groundwater supply within the Basin:

- The Intermediate Area, which lies between the City of Ridgecrest and the community of Inyokern;

- The Southwest Area, which lies to the southwest of Ridgecrest and south of Inyokern; and

- The Northwest Area, which lies to the northwest of Ridgecrest and north of Inyokern.

The Southwest Area and the Northwest Area are collectively referred to herein as the West Valley. The Intermediate and Southwest Areas are the portions of the Basin from which most water is currently produced for the District's domestic water supply purposes.

The Basin is not adjudicated. According to *California's Groundwater Bulletin 118* (2004), DWR characterizes the Basin as overdrafted based on data available in 1985, and estimates that current quantities of groundwater stored in the Basin are probably less than the 1985 quantities. DWR has categorized the Basin's groundwater budget as Type A, which is defined by DWR as a budget which "indicates that much of the information needed to characterize the groundwater budget for the basin or subbasin [is] available".

On September 16, 2014, Governor Brown signed three bills (AB 1739, Dickinson; SB 1168 and SB 1319, Pavley) that create a framework for sustainable local groundwater management. This legislation, referred to as the Sustainable Groundwater Management Act, or SGMA, empowers local agencies to manage groundwater basins in a sustainable manner over a long-term horizon and to tailor groundwater sustainability plans to their regional economic and environmental needs. SGMA provides five to seven years (depending on the groundwater basin) for locals to form a Groundwater Sustainability Agency (GSA) and to create a Groundwater Sustainability Plan (GSP). In medium and high priority basins (including the Indian Wells Valley Groundwater Basin) GSAs must be formed by June 30, 2017, and have a GSP in place by January 31, 2020.

In accordance with SGMA, DWR developed the California Statewide Groundwater Elevation Monitoring (CASGEM) program to track seasonal and long-term trends in groundwater elevations in California's groundwater basins. Through its CASGEM program, DWR ranked the priority of each groundwater basin in California as either very low, low, medium, or high. The Indian Wells Valley Groundwater Basin has been designated as Medium priority.

In addition, DWR, as required by SGMA, identified the basins and subbasins that are in conditions of critical overdraft. Twenty-one basins and subbasins, including the Indian Wells Valley Groundwater Basin, were identified as critically-overdrafted basins.

As required by SGMA, basins that are identified as critically overdrafted and are also designated as either High or Medium Priority must be managed under a groundwater sustainability plan by January 21, 2020. All other High and Medium Priority basins must be managed under a groundwater sustainability plan by January 31, 2022.

2. Water Supply Enhancement

The *Indian Wells Valley Water District Water Supply Enhancement General Plan* (last revised on November 9, 2007, herein referred to as the WSE General Plan) describes the efforts being undertaken by the District to eliminate the long-term overdraft condition in the Indian Wells Valley Groundwater Basin (Basin).

The goals of the WSE General Plan are:

- To further the District's ongoing efforts to optimize use of the existing water supply (groundwater), and
- To evaluate the feasibility of obtaining or developing one or more supplemental water supplies for potential future use.

To implement the WSE General Plan, the District will conduct various studies that may evaluate, but are not limited to, the following:

- Optimizing use of the existing groundwater supply
- Developing supplemental water supplies, inside and outside the Indian Wells Valley
- Site selection and source evaluation in analyzing supplemental water supplies
- Evaluating water quality and quantity characteristics of potential supplemental water supply sources

- Working with local communities to determine local needs
- Institutional considerations relating to federal, state, and local concerns
- Conveyance and storage requirements
- Environmental considerations
- Financing, cost comparison, and alternatives

Those items listed above are discussed in additional detail in the District's WSE General Plan, a copy of which is included in **Appendix L** herein.

C. GROUNDWATER SUPPLIES

> ***Water Code***
>
> **10631.** A plan shall be adopted in accordance with this chapter and shall do all of the following:
> (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:
> (1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.
> (3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
> (4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

The District's groundwater supply consists exclusively of groundwater from the Basin and is extracted as needed. **Tables 9 and 10** include, respectively, the annual quantities of groundwater pumped during 2010 through 2015 and the quantities of groundwater projected to be pumped in 2020 through 2040, in five-year intervals.

TABLE 9 QUANTITIES OF GROUNDWATER PUMPED (AF/YR)						
Basin Name	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Indian Wells Valley Groundwater Basin	7,570	7,391	7,652	7,546	7,327	7,077
Percent of Total Water Supply	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

TABLE 10 QUANTITIES OF GROUNDWATER PROJECTED TO BE PUMPED (AF/YR)					
Basin Name	**2020**	**2025**	**2030**	**2035**	**2040**
Indian Wells Valley Groundwater Basin	8,255	8,453	8,657	8,860	9,311
Percent of Total Water Supply	**100%**	**100%**	**100%**	**100%**	**100%**

The District anticipates a continued reliance on groundwater as its source of potable water, and has consistently made efforts to efficiently manage the valuable groundwater resources in the Basin. As part of these efforts, the District actively participates in the Indian Wells Valley Cooperative Groundwater Management Group (IWVCGMG). The IWVCGMG was formed in 1995 to protect these groundwater resources and develop a plan to assure a safe and reliable water supply for the residents of the Indian Wells Valley. The IWVCGMG includes most of the major water users in the Basin, as well as other government agencies. Meetings are open to the public and attended by concerned citizens.

The IWVCGMG developed the *Cooperative Groundwater Management Plan for the Indian Wells Valley* (referred to herein as the Groundwater Management Plan) in 1995, and revised said management plan in 2006 (copy included in **Appendix J** herein). As stated in the Groundwater Management Plan, its purpose is to:

(a) set forth guidelines and management principles for the production, distribution, and use of groundwater within the purview of the participants;

(b) further develop (cooperatively or individually) the technical data and analytical capabilities to better understand the nature and characteristics of the watershed and aquifer system;

(c) apply these guidelines toward sound management practices to extend the useful life of the groundwater resource to meet current and future demands; and to

(d) coordinate interested local agencies and water producers into a cooperative planning effort to share information and management practices to maintain the life of the resource.

The Groundwater Management Plan is an agreement among the major water producers and consumers within the Indian Wells Valley to evaluate the area's groundwater resources and to serve as a general planning guideline to extend the useful life of available water supplies. Additionally, the Groundwater Management Plan provides that the signatories will specifically analyze and consider water management; water conservation; increasing the life of the aquifer through blending, importation, and treatment; and other issues of concern with respect to the Basin.

D. TRANSFER OPPORTUNITIES

> ***Water Code***
>
> **10631.** A plan shall be adopted in accordance with this chapter and shall do all of the following:
> (d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

The District does not currently have the infrastructure or agreements for importation that would enable importation of water from outside the local area; therefore, opportunities for water transfers or exchanges of imported water supplies are not currently available to the District. However, the District continues to consider potential opportunities for future water transfers or exchanges from outside the Indian Wells Valley that would provide additional supply for future District demand.

The District has had discussions with Kern County Water Agency regarding short-term and long-term water acquisition, exchanges, and transfers. The sources would involve State Water Project water and possibly other sources. At this time, no definite quantities or agreements have been discussed.

The District has interconnections to the water supplies of Searles Valley Minerals (SVM) and the Navy at China Lake NAWS. These interconnections enable the District to obtain water from, or provide water to, these other local suppliers in an emergency.

The District's interconnection with the Navy includes facilities with an estimated capacity of approximately 3,000 gallons per minute (gpm), to be used for water transfers to or from the District only during emergency conditions. The District's interconnection with SVM (formerly North American Chemical Company) consists of a single tie-in located in the northern half of the District's service area, and allows SVM to take up to approximately 750 gpm from the District under emergency conditions. Since SVM does not perform well-head disinfection, the District cannot currently accept water from SVM.

E. FUTURE WATER SUPPLY PROJECTS

Water Code

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:
(g) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use…

The District plans to take actions to improve its water supply commensurate with increases in demand over the next ten years or more. These actions are part of the District's Water Supply Improvement Project (WSIP), the original version of which was described in the *Draft Environmental Impact Report, Water Supply Improvement Project*, October 2011, prepared by ECORP Consulting, Inc. The WSIP has been modified since its inception, and the current version of the WSIP is described in an addendum to said EIR. Said addendum was approved by the District's Board of Directors on December 14, 2015, and the Project described therein has not yet been constructed at the time of this writing.

The WSIP involves increasing the nominal pumping capacity of one of the District's existing wells (Well 34), constructing an additional well (Well 35), and increasing the nominal pumping capacity of Well 35 in the future. The WSIP is intended to meet existing and future maximum day demand with a 20 percent reduction in capacity that could result from a mechanical failure or water quality issue in one or more of IWVWD's production facilities on a maximum demand day.

The District continues to investigate a variety of potential opportunities to augment the water supply in the Indian Wells Valley, including the possibility of groundwater replenishment using imported water.

F. DESALINATED WATER OPPORTUNITIES

Water Code

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:
(h) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long term supply.

In 2010, the District completed a feasibility study, preliminary design report, and a pilot study for treatment of brackish water from the site of the former Neal Ranch in the northwest portion of the Indian Wells Valley. The studies, conducted for the District by Carollo Engineers, evaluated treatment alternatives and produced preliminary design criteria. Although the District no longer owns the former Neal Ranch site, it is currently evaluating potential scenarios for implementation of the report's findings, and is moving forward with a brackish water resource study in partnership with other local stakeholders to identify the potential brackish water resources within the Indian Wells Valley that can be cost-effectively exploited using the technology identified in the feasibility study.

G. WASTEWATER SYSTEM DESCRIPTION AND OPPORTUNITIES FOR RECYCLED WATER USE

Water Code

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:
(a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.
(b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.
(c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.
(d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.
(e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.
(f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.
(g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

1. Wastewater Treatment

Although the District has the authority to accept, treat, and deliver wastewater effluent as reclaimed water, it does not have access to wastewater effluent, which is currently under the jurisdiction of the City of Ridgecrest.

The City of Ridgecrest is responsible for the collection, conveyance, treatment, and disposal of wastewater generated within a majority of the District's service area (City of Ridgecrest) and China Lake NAWS (Navy). All wastewater collected is conveyed

through regional wastewater conveyance facilities (trunk sewer, lift station, and force main) to the City of Ridgecrest's Regional Wastewater Treatment Plant (WWTP).

The City's WWTP is located on Navy property and has generated secondary effluent in the quantities shown in **Table 11**. The current capacity of the Regional Wastewater Treatment Plant is 3.6 million gallons per day (approximately 11 acre-feet per day). The WWTP currently meets its permit requirements; however, it is very old and in need of major repairs. In its current condition, it will be difficult for the WWTP to comply with future regulations. At this time, the City is in the planning process for a new wastewater treatment plant.

Based on preliminary planning documents, the City anticipates constructing a new wastewater treatment plant with a proposed design capacity of 3.6 million gallons per day (MGD) annual average daily flow (AAD), with a future expansion of up to 5.4 MGD AAD. The City is currently in the process of completing a Draft Environmental Impact Report in consideration of two possible project sites.

Quantities of wastewater projected to be treated by the City of Ridgecrest for the next 25 years are shown in **Table 12**.

TABLE 11
QUANTITIES OF WASTEWATER TREATED AT CITY OF RIDGECREST WWTP
IN ACRE-FEET PER YEAR (AF/YR)

2010	2011	2012	2013	2014	2015
2,937	2,758	2,801	2,579	2,590	3,115

TABLE 12
PROJECTED QUANTITIES OF WASTEWATER REQUIRING
TREATMENT AND DISPOSAL (AF/YR)

	2020	2025	2030	2035	2040
Total	**3,475**	**3,699**	**4,147**	**4,484**	**4,932**

Note: All treatment plant effluent is either treated further and used for irrigation or is percolated into the ground to supply water to the Lark Seep. Projected quantities of wastewater are based on estimates from the City of Ridgecrest.

2. Recycled Water Use

a. Recycled Water Currently Being Used

Recycled water is currently used by the City of Ridgecrest and the Navy. An agreement has been established between the City of Ridgecrest and the Navy for coordination of facilities in exchange for use of recycled water by the Navy. Recycled water is not currently available for use by the District due to inadequate quantities and lack of conveyance and treatment facilities.

The City's agreement with the Navy provides for the Navy's allotment of 748 AF/yr of treated effluent, and the Navy typically uses its entire allotment. After disinfecting the effluent with chlorine, the Navy uses the water to irrigate a golf course on Navy property.

In addition, approximately 224 AF/yr of secondary-treated effluent is used for irrigation on an alfalfa farm managed by the City of Ridgecrest. The remainder of treated effluent is evaporated or percolated in evaporation and facultative ponds. Adequate quantities of water must remain in the evaporation ponds at all times in order to provide enough percolation into the nearby Lark Seep, which serves as a refuge for the Mohave tui chub *(Gila bicolor mohavensis),* an endangered species of fish. At times, there is only enough effluent to supply the Navy and the endangered fish. **Table 13** shows the quantities of secondary-treated effluent used during the period 2005 through 2010.

TABLE 13
HISTORICAL RECYCLED WATER USE[1]
(AF/YR)

	2010	2011	2012	2013	2014	2015
Navy[2]	748	748	748	748	748	748
City of Ridgecrest[3]	2,189	2,010	2,053	1,831	1,842	2,367
IWVWD	0	0	0	0	0	0
Total	**2,937**	**2,758**	**2,801**	**2,579**	**2,590**	**3,115**

(1) All treatment plant effluent is either treated further and used for irrigation or is percolated into the ground to supply water to the Lark Seep.
(2) Fixed allotment
(3) Source: *Wastewater Treatment Plant Facility Plan, City of Ridgecrest, CA, October 2015 Review Draft*, prepared by Provost & Pritchard Consulting Group

b. Potential Uses of Recycled Water

The list of types of uses for which reclaimed water is approved within California is continuing to grow as the value of wastewater reclamation is being more widely recognized as a reliable water resource. The State Water Resources Control Board is responsible for Title 22 of the California Code of Regulations, which establishes water recycling criteria and allowable uses.

The bulk of potential uses fall into landscape irrigation such as roadway medians, freeway landscape, schools, cemeteries, golf courses, and parks. Equestrian properties may also have a potential use for recycled water. It is difficult to quantify potential uses of recycled water in the area due to the seasonal variations in supply. There is not a constant source of supply beyond what is already committed to the Navy, the endangered fish refuge, and the City's alfalfa farm. Even in times when there is a temporary surplus of the recycled water supply, such surplus supply would require construction of a tertiary treatment facility to meet recycled water standards for use within the District. The City is currently considering construction of a new WWTP that may include tertiary treatment facilities. If recycled water were to become available from the City, then the District would need to construct recycled water conveyance pipelines in order to use recycled water in its service area.

c. Projected Recycled Water Use

Because the City is planning construction of a new wastewater treatment facility, it is possible that treatment plant effluent may be available from the City at some point in the future for use by the District. At this time, however, there are no plans for effluent water allocations for District use. Projected use of secondary-treated effluent for the period 2020 through 2040 is shown in **Table 14**.

TABLE 14 PROJECTED RECYCLED WATER USE (AF/YR)					
	2020	**2025**	**2030**	**2035**	**2040**
Navy[1]	748	748	748	748	748
City of Ridgecrest[2]	2,750	3,066	3,410	3,784	3,852
IWVWD	0	0	0	0	0
Total	**3,498**	**3,814**	**4,158**	**4,532**	**4,600**

Notes: All treatment plant effluent is either treated further and used for irrigation or is percolated into the ground to supply water to the Lark Seep.

(1) Fixed allotment

(2) Source: City of Ridgecrest (based on 1.8% per year estimated growth)

d. Encouraging Recycled Water Use

As discussed above, recycled water is currently unavailable in the District's service area. City of Ridgecrest's Regional Wastewater Treatment Plant produces secondary treated effluent, a portion of which is further treated by the Navy for use as irrigation water. Remaining quantities are used by the City of Ridgecrest to irrigate a City-managed alfalfa farm, as well as for percolation that contributes water to a reserve for the Mohave tui chub, an endangered fish species. Therefore, the District is not encouraging recycled water use within its service area at this time.

As stated previously herein, the City is currently in the planning stages for a new wastewater treatment facility that may include tertiary treatment facilities; however, it is not known at this time whether any recycled water produced at such a future facility would be available for District use. At this time, it is not known whether recycled water will be available for use by the District within the next 25 years.

3. Recycled Water Optimization Plan

As described above, it is not currently feasible to purvey recycled water within the District's service area. In order to use recycled water within the District's service area, quantities of treated wastewater, which are currently unavailable, would need to be made available by the City of Ridgecrest, and the District would have to construct conveyance facilities and additional treatment facilities. Therefore, the use of recycled water by the District is cost-prohibitive at this time, and a Recycled Water Optimization Plan has not been prepared.

SECTION 6

WATER SUPPLY RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING

SECTION 6
WATER SUPPLY RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING

A. WATER SUPPLY RELIABILITY

Water Code

10631. (c) (1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

(A) An average water year.
(B) A single-dry water year.
(C) Multiple-dry water years.

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

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

Although California has experienced severe drought conditions since 2011, the IWVWD has not experienced any actual supply deficiencies, due to its reliance on local groundwater sources. IWVWD does not have an immediate concern with water supply reliability. Because the District's water supply is groundwater, the District is not subject to short-term water shortages resulting from temporary dry weather conditions.

Factors that can cause water supply shortages are earthquakes, chemical spills, and energy outages at treatment and pumping facilities. IWVWD includes the probability of catastrophic outages when using the reliability planning approach.

Reliability planning requires information about: (1) the expected frequency and severity of water shortages; (2) how additional water management measures are likely to affect the frequency and severity of water shortages; and (3) how available contingency measures can reduce the impact of water shortages when they occur.

The District does not have an immediate concern with water supply reliability. Because the District's water supply is groundwater, which has not experienced seasonal or year-to-year climatic change, it is not subject to short-term water shortages resulting from temporary dry weather conditions. As discussed in **Section 5.C.** herein, the District and other groundwater users in the Indian Wells Valley have been implementing ongoing groundwater management practices to extend the useful life of the groundwater resource to meet current and future demands. The District's demand management measures are described in **Section 6** and **Appendix N** of this UWMP.

IWVWD's goal is to provide its customers with adequate and reliable supplies of high-quality water, which meet present and future needs in an environmentally and economically responsible manner. The District's anticipated water supply reliability during a single dry water year and during multiple dry water years is described in **Tables 15 and 16**. The basis of the water year data is indicated in **Table 17**.

The estimated groundwater supply of 20,000 AF/yr shown in **Tables 15 and 16** is based on the maximum quantity of water that the District is capable of producing if all existing wells operate continuously for 24 hours per day (19,034 AF/yr rounded up). The District has not experienced an actual supply deficiency during dry years, and the District is located in an arid high desert region; therefore, supply and demand remain relatively unchanged in the District's service area during dry years. Comparisons of the District's anticipated supply and demand during different types of water years, through 2040, are shown in **Tables 18, 19, and 20**.

TABLE 15
GROUNDWATER SUPPLY RELIABILITY – HISTORIC CONDITIONS (AF/YR)

Normal Water Year	Single Dry Water Year	Multiple Dry Water Years		
		2013	2014	2015
20,000	20,000	20,000	20,000	20,000
Percent of Normal	100%	100%	100%	100%

TABLE 16 GROUNDWATER SUPPLY RELIABILITY – CURRENT CONDITIONS (AF/YR)				
Water Supply Source	Average/Normal Water Year Supply	Multiple Dry Water Years Supply		
		2016	2017	2018
Indian Wells Valley Groundwater Basin	20,000	20,000	20,000	20,000
Percent of Normal	100%	100%	100%	100%

TABLE 17 BASIS OF WATER YEAR DATA[1]		
Water Year Type	Base Year(s)	Historic Sequence
Normal Water Year	2003	1901-2015
Single-Dry Water Year	1924	1901-2015
Multiple-Dry Water Years	2013-2015	1901-2015

(1) Base years were identified from historical precipitation data for the period 1901-2015, a copy of which is included in **Appendix H**.

TABLE 18 PROJECTED NORMAL YEAR SUPPLY AND DEMAND COMPARISON					
	2020	2025	2030	2035	2040
Supply totals (AF/yr)	20,000	20,000	20,000	20,000	20,000
Demand totals (AF/yr)	8,255	8,453	8,657	8,860	9,311
Difference (supply minus demand, in AF/yr)	11,745	11,547	11,343	11,140	10,689
Difference as % of Supply	59%	58%	57%	56%	53%
Difference as % of Demand	142%	137%	131%	126%	115%

TABLE 19 PROJECTED SINGLE DRY YEAR SUPPLY AND DEMAND COMPARISON					
	2020	2025	2030	2035	2040
Supply totals (AF/yr)	20,000	20,000	20,000	20,000	20,000
Demand totals (AF/yr)	8,255	8,453	8,657	8,860	9,311
Difference (supply minus demand, in AF/yr)	11,745	11,547	11,343	11,140	10,689
Difference as % of Supply	59%	58%	57%	56%	53%
Difference as % of Demand	142%	137%	131%	126%	115%

TABLE 20 PROJECTED MULTIPLE DRY YEARS SUPPLY AND DEMAND COMPARISON					
	2020	**2025**	**2030**	**2035**	**2040**
Supply totals (AF/yr)	20,000	20,000	20,000	20,000	20,000
Demand totals (AF/yr)	8,255	8,453	8,657	8,860	9,311
Difference (supply minus demand, in AF/yr)	11,745	11,547	11,343	11,140	10,689
Difference as % of Supply	59%	58%	57%	56%	53%
Difference as % of Demand	142%	137%	131%	126%	115%

In the future, the District will continue to be reliant on local groundwater supplies. The District will develop additional groundwater extraction and groundwater treatment facilities as needed to ensure a continuous and adequate water supply for its service area. As described in the District's *Water Supply Enhancement General Plan* (copy available at the District's office for review), the District continues to evaluate the feasibility of one or more supplemental water supplies for potential future use.

The District's emergency interconnection with the Navy, as described in **Section 5.D.** herein, will provide lifeline water service in the event of catastrophic outages. The District also has an interconnection to provide water to SVM in an emergency; however, because SVM does not perform well-head disinfection, the District cannot currently accept water from SVM. See **Section 6.B.**, Water Shortage Contingency Analysis, for a description of measures the District will take in the event of a water supply interruption.

Since the District relies exclusively on groundwater as its source of supply, and is therefore not subject to short-term shortages caused by periodic drought, the following description focuses on equipment failure and disaster. **Table 21** shows the nominal production capability for each of the District's production wells.

TABLE 21 SUPPLY SOURCE PRODUCTION CAPABILITY	
Well No.	**Nominal Production Capacity (gpm)**
9A	1,000
10	1,100
11	1,000
13	1,100
17	1,200
18	1,200
30	1,400
31	1,400
33	1,200
34	1,200
Total	**11,800**

The District's current pumping plant capacity is capable of providing for the current maximum day demand of 11,050 gpm, with a reserve capacity of 750 gpm.

If, during a period of peak demand, one pumping plant was out of service, the District may rely upon water supplied from the emergency interconnections with the Navy and SVM to make up the pumping shortfall (there is some emergency supply in storage). Additionally, the District recently approved a modified version of its Water Supply Improvement Project, which is designed to increase the District's water production capacity and maintain a 20% redundancy factor above the estimated maximum day demand to accommodate scheduled and unscheduled maintenance and repairs.

As discussed in **Section 5.D.**, the District has an interconnection agreement with the Navy to ensure that an adequate supply of water is available should any of its supply facilities fail. The District keeps spare motors and pumping equipment on hand for use at any of its pumping plants and has historically been able to return pumping plants to service within one week. Further, the District has adequate backup power (generators) to provide emergency water service (indoor domestic use only) to its customers in the event of a widespread power failure.

The District's *Emergency Response Plan for the Indian Wells Valley Water District*, dated June 2008 (referred to as the Emergency Response Plan) outlines the actions to be taken in the event of a major catastrophe. The Emergency Response Plan is reviewed regularly and updated as needed. The District's Emergency Response Plan is incorporated herein by reference and is

kept on file at the District's office. **Section 6.B.6.** includes additional discussion of the District's Emergency Response Plan.

IWVWD does not anticipate any inconsistency in supply due to legal, environmental, water quality, or climate factors.

B. WATER SHORTAGE CONTINGENCY ANALYSIS

Water Code

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

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

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

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

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

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

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

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

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

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

(b)Commencing with the urban water management plan update due July 1, 2016, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

1. Water Shortage Response

The District is located within an arid high desert region. The District relies exclusively on groundwater as its source of supply, and periodic drought does not appear to affect the groundwater levels. Therefore, this Water Shortage Contingency Analysis focuses on water supply interruption resulting from equipment failure and disaster.

The District has a civic and legal responsibility to provide for the water-related health and safety needs of the community. In order to minimize the social and economic impact of water shortages, the District will prudently manage water supplies. The Water Shortage Contingency Plan is designed to provide for a minimum of 50% of normal supply during a severe or extended water shortage. The rationing program outlined below ensures that these policy elements are implemented.

As stated previously, the District's only water source is groundwater. Rationing stages and response actions may be triggered by a shortage in aquifer supply, equipment failure, or catastrophe. Because the stages overlap, the triggers will automatically implement the more restrictive stage, unless the District's Board of Directors decides to implement the less restrictive stage. Shortages may trigger a stage at any time.

The District has developed a Water Shortage Contingency Plan (Resolution 92-08, Adopted April 27, 1992), which includes voluntary and mandatory water conservation actions and stages. Water conservation levels and water allotments for each stage are described in the Water Shortage Contingency Plan and describe the actions IWVWD will take during a water supply catastrophe. **Table 22** summarizes the actions the District is prepared to take in the event of a water supply interruption. **Section 6.B.6.** describes additional actions that will be taken during a water supply emergency.

TABLE 22 RESPONSE ACTIONS DURING A CATASTROPHE	
Possible Catastrophe	**Summary of Actions**
• Power Outage • Earthquake • Any Natural Disaster	• Emergency power generation • Establish communication with emergency response personnel • Determine water shortage condition • Contact and coordinate with other agencies • Communicate with the public • Appoint an emergency response team/coordinator • Implement Emergency Response Plan for managing manpower, operations, and equipment • Implement rationing as necessary in accordance with **Table 24**

The District has equipped several of its wells and booster pumping plants with emergency standby generators that enable the District to produce approximately 80% of its maximum day demand in the event of a regional power outage by the local electric service provider, only limited by the availability of diesel fuel and natural gas. Most of the District's standby generators are portable, allowing for flexibility in accommodating a regional power outage.

2. Estimated Minimum Water Supply for the Next Three Years

As described in **Section 6.A.** of this UWMP, the District's estimated minimum water supply of 20,000 AF/yr for each of the next three water years (2016-2018) is based upon the District's driest 3-year historic sequence (2013-2015) during the base period of 1900-2015, and is the maximum quantity of water that the District expects to be able to supply to its customers.

3. Health and Safety Requirements

Based on commonly accepted estimates of interior residential water use in the United States, **Table 23** indicates per capita health and safety water requirements. In Stage 1 and Stage 2 shortages, customers may adjust either interior or exterior water use (or both) in order to meet the voluntary water reduction goal.

TABLE 23 PER CAPITA HEALTH AND SAFETY WATER QUANTITY CALCULATIONS						
Non-Conserving Fixtures	**Habit**		**Habit Changes** [1]		**Conserving Fixtures** [2]	
Toilets	5 flushes x 5.5 gpf	27.5	3 flushes x 5.5 gpf	16.5	5 flushes x 1.6 gpf	8.0
Shower	5 min x 4.0 gpm	20.0	4 min x 3.0 gpm	12.0	5 min x 2.0 gpm	10.0
Washer	12.5 gpcd	12.5	11.5 gpcd	11.5	11.5 gpcd	11.5
Kitchen	4 gpcd	4.0	4 gpcd	4.0	4 gpcd	4.0
Other	4 gpcd	4.0	4 gpcd	4.0	4 gpcd	4.0
Total (gpcd)		68.0		48.0		37.5
HCF per capita per year		33.0		23.0		18.0

(1) Reduced shower use results from shorter and reduced flow. Reduced washer use results from fuller loads.
(2) Fixtures include ULF 1.6 gpf toilets, 2.0 gpm showerheads, and efficient clothes washers.

4. Stages of Action

a. Rationing Stages and Reduction Goals

The District has developed a four-stage rationing plan (see **Table 24**) to invoke during declared water shortages. The rationing plan includes voluntary and mandatory rationing, which will be required depending on the causes, severity, and anticipated duration of the water supply shortage. When mandatory water rationing is being implemented during a declared water shortage, customers who exceed their established water use allotment will incur penalties consisting of surcharges, as described in **Section 6.B.7**.

During any declared water shortage, a customer who exceeds the established allotment will pay a surcharge of two times the highest rate tier per hundred cubic feet (ccf) of water for excess water delivered during the first or second billing period. For excess water delivered during the third and subsequent consecutive billing periods, a customer will be assessed a surcharge of four times the highest rate tier per ccf.

As stated previously, the District's only water source is groundwater. Rationing stages may be triggered by a shortage in aquifer supply, equipment failure, or catastrophe. Because the stages overlap, the triggers will automatically implement the more restrictive stage, unless the District's Board of Directors decides to implement the less restrictive stage. Shortages may trigger a stage at any time.

TABLE 24
WATER RATIONING STAGES AND REDUCTION GOALS

Shortage Condition	Stage	Customer Reduction Goal	Type of Rationing Program
25 – 40%	1	15%	Voluntary
40 – 50%	2	25%	Voluntary
50 – 60%	3	30%	Mandatory
60% +	4	40%	Mandatory

Under Stage 3 and Stage 4 mandatory rationing programs, the District has established a health and safety allotment of 68 gpcd (refer to **Table 23**), equivalent to 33 ccf per person per year, because that amount of water is sufficient for essential interior water with no habit or plumbing fixture changes. If customers wish to change water habits or plumbing fixtures, 68 gpcd is sufficient to additionally provide for limited non-essential (e.g. outdoor) water uses.

Stage 4 mandatory rationing, which is likely to be declared only as the result of a prolonged water shortage or as a result of a disaster, would require that customers make changes in their interior water use habits (for instance, not flushing toilets unless "necessary" or taking less frequent showers).

b. Priorities by Use

The District's priorities for use of available water during a water shortage are, in order of priority, as follows:

1. Fire protection, health, and welfare emergency uses
2. Domestic – interior uses only (residential)
3. Public buildings, schools – interior uses only
4. Commercial and industrial – interior uses only
5. Commercial and industrial – other uses (not including landscape watering or nonessential uses)
6. Domestic – other uses (including exterior residential use)

5. Water Allotment Methods

The District has established the following allocation method for each customer type. The specific levels are defined in the District's Water Shortage Contingencies Customer Allotments and Appeals Procedure section of its Draft Moratorium on New Connections During a Water Shortage, included in **Appendix M**, herein.

Single Family:	Hybrid of per capita and percentage reduction. In mandatory stages (Stages 3 and 4), the health and safety allotments are determined on a per capita basis; in the less restrictive voluntary stages (Stages 1 and 2), a percentage reduction is requested from each service.
Multi-Family:	Hybrid of per capita and percentage reduction.
Commercial/ Industrial/Institutional:	Percentage reduction.
Landscaping:	Percentage reduction.

New Demand:	Hybrid of per capita and percentage reduction, or percentage reduction, depending on type of service.

Individual customer allotments will be based on a five-year base period. This gives the District a more accurate view of the usual water needs of each customer and provides additional flexibility in determining allotments and reviewing appeals. However, no allotment will be greater than the amount used in the most recent year of the five-year base period.

The District's General Manager will classify each customer and calculate each customer's allotment according to the methods described herein. The allotments will reflect seasonal patterns, and customers will be notified of their classifications and allotments by mail before the effective date of the declared water shortage emergency. New customers and connections will be notified at the time service commences. In a disaster, prior notice of allotment may not be possible. In this case, notice will be provided by other means, such as radio, television, or newspaper. Any customer may appeal the General Manager's classification on the basis of use or the allotment on the basis of incorrect calculation. The appeals process is set forth in the Draft Moratorium on New Connections During a Water Shortage, which is included in **Appendix M**.

6. Emergency Response Plan

The District's *Emergency Response Plan for the Indian Wells Valley Water District*, dated June 2008 (referred to as the Emergency Response Plan) outlines the actions to be taken in the event of a major catastrophe. The Emergency Response Plan is reviewed regularly and updated as needed. The District's Emergency Response Plan is incorporated herein by reference and is kept on file at the District's office.

The Emergency Response Plan is coordinated with other emergency services, including police, fire, medical services, other utilities, as well as county, state, and federal agencies. The Emergency Response Plan includes procedures for reportable emergency incidents, notifications, boil water orders, unsafe water alerts, and emergency chlorination.

The following steps comprise the District's procedure for emergency situation response and evaluation.

STEP 1: The priority response to any degree of disaster, prior to plant evaluation, is to shut and lock off the inlet and outlet valves of the Bowman #2 service-level storage tank on West Bowman Road. This tank is one of the three service-level storage tanks in the A-Zone, which supply water to the District's main distribution grid. The isolation of this tank will have minimal effect on the hydraulics of the system and can be left off, pending evaluation of the distribution mains.

STEP 2: Evaluate the integrity of the District's remaining service-level storage tanks and the quantities of water still contained therein.

STEP 3: Coordinate the personnel available for use in the emergency and establish District communication. Then establish communication with other local governmental and law enforcement agencies.

STEP 4: Evaluate the damage done to the rest of the District's facilities, including wells and distribution mains.

****** Damaged mains will be assumed contaminated, and therefore will not be put back into service immediately. ******

If system evaluation shows a loss of capacity, then depending on the amount of capacity lost, it might be necessary to valve-off additional service-level storage tanks to protect the system from loss of stored water.

The general priorities for valving off additional service-level storage are:

1.	R/C Heights Tank	3,000,000 gallons
2.	Springer Tank	2,000,000 gallons
3.	C-Zone Tanks	1,400,000 gallons
4.	Gateway Tank	600,000 gallons

And in a drastic situation:

5. Salisbury Tanks 500,000 gallons
6. Kendall Tank 2,000,000 gallons
7. College Tank 600,000 gallons

As soon as the plant evaluation is complete, the District will communicate necessary information to the police and sheriff's departments and to the public. If plant integrity is found to be good, any storage tanks that have been valved-off can be put back online as needed. The District's storage facilities are listed in **Table 25**.

TABLE 25
EXISTING STORAGE FACILITIES

No.	Total Volume (gallons)	Number of Storage Tanks	Name	Zone	Location
1	2,000,000	1	Bowman # 1	A	West Bowman Road
2	5,000,000	1	Bowman # 2	A	West Bowman Road
3	2,000,000	1	Kendall	A	Kendall Street
4	3,000,000	1	R/C Heights	B	Kendall & Brady
5	2,000,000	1	Springer	B	Springer Street
6	600,000	1	Gateway	B	Gateway & Javis
7	1,400,000	2	C-Zone	C	Sunland, South of Javis
8	500,000	2	Salisbury	D	Belle Vista & Richmond
9	600,000	1	College	E	East of Cerro Coso College

If, during a period of peak demand, one pumping plant was out of service, the District may rely upon water supplied from the emergency interconnections with the Navy and SVM to make up the pumping shortfall (there is some emergency supply in storage). The District is currently preparing a Water Supply Improvement Plan that will include projects designed to increase the District's water production capacity and maintain a 20% redundancy factor above the estimated maximum day demand to accommodate scheduled and unscheduled maintenance and repairs.

As discussed in **Section 5.D.**, the District has interconnection agreements with the Navy and SVM to ensure that an adequate supply of water is available should any of its supply facilities fail. The District keeps spare motors and pumping equipment on hand for use at any of its pumping plants and has historically been able to return pumping plants to service within one week. Further, the District has adequate backup power (generators) to provide emergency water service (indoor domestic use only) to its customers in the event of a widespread power failure.

7. Prohibitions, Penalties, and Consumption Reduction Methods

a. Mandatory Prohibitions on Water Wasting

The District adopted a Water Efficient Landscape Ordinance, *Ordinance No. 93 Ordinance of the Board of Directors of the Indian Wells Valley Water District, Kern and San Bernardino Counties, California, Rescinding Ordinance No. 72 in its Entirety; and Adopting Voluntary and Mandatory Conservation Measures and Recommending and/or Requiring Certain Water Conservation Measures*, effective as of May 10, 2010 (Water Efficient Landscape Ordinance).

The City of Ridgecrest also adopted a Water Efficient Landscape Ordinance, Ordinance No. 09-05, on December 16, 2009, which is codified in Section 12-9 of the City's Code of Ordinances. On February 17, 2016, the City adopted Ordinance 16-01, which supersedes Ordinance No. 09-05, and meets the minimum requirements of the DWR Model Water Efficient Landscape Ordinance.

The District's Water Efficient Landscape Ordinance is intended to promote the values and benefits of landscaping while recognizing the need to utilize water and other resources as efficiently as possible, as well as to establish provisions for efficient use and management of water resources. A copy of Ordinance No. 93 is included in **Appendix K**.

On January 11, 2016, the District adopted *Ordinance No. 100 Ordinance of the Board of Directors of the Indian Wells Valley Water District, Kern and San Bernardino Counties, California, Rescinding Ordinance Number 97 in its Entirety and Adopting Emergency Water Conservation Mandatory Restrictions*, a copy of which is included in **Appendix K** herein. Ordinance No. 100 includes provisions for compliance with the mandatory restrictions imposed by the SWRCB's emergency water conservation regulations. Ordinance No. 100 supersedes Ordinance No. 93 until such time that Ordinance No. 100 is rescinded by the District's Board upon lifting of the SWRCB's mandatory restrictions.

Some of the mandatory water management measures included in the District's Water Efficient Landscape Ordinance (Ordinance No. 93) include:

- No water user shall waste water. Meaning of "waste":
  - Water runoff from landscape irrigation;
  - Washing down hard or paved surfaces, except when necessary to alleviate safety or sanitary hazards;
  - Knowingly allowing water to leak;
  - Using a hose without a shut-off nozzle while washing a vehicle or any recreational vehicles and/or equipment.

- Landscape shall not be irrigated on the surface, except for hand watering or the use of a drip irrigation system, between the hours of 8:00 a.m. and 8:00 p.m. during the months of May, June, July, August, September, and October unless a special permit is issued to accommodate newly planted material.

- New plumbing fixtures must conform to requirements of law as to flow capacity.

- Ordinance 100 adds the following measures during the term of its effect: Outdoor landscape irrigation is limited to three days per week according to the last digit of the address; Tuesday, Thursday, Saturday for even numbers and Wednesday, Friday, Sunday for odd numbers. No watering is permitted on Mondays. Also, outdoor watering is limited to one day per

week November thru February: Saturday for even numbers and Sunday for odd numbers.

i) Enforcement

Provisions for enforcement of the Water Efficient Landscape Ordinance are as follows:

- First Offense: Written notice with educational materials
- Second Offense: Fine up to $50.00
- Third Offense: Fine up to $200.00
- Further non-compliance may result in termination of service
- Appeal process

Ordinance 100 adds a second notice prior to imposition of fines.

ii) Consumption Reduction Methods

In addition to the District's prohibitions on water wasting, the District may, in its discretion, implement additional prohibitions or consumption reduction methods in order to reduce water usage during a declared water shortage.

Table 26 lists examples of consumption reduction measures, as well as the water supply shortage stage when the method takes effect. **Table 27** lists prohibitions on water use, and when each prohibition takes effect.

TABLE 26 CONSUMPTION REDUCTION METHODS	
Consumption Reduction Method	**Stage When Method Takes Effect**
Best Management Practices	All Stages
Reduce pressure in water lines	4
Flow restriction	4
Restrict for only priority uses	4
Use prohibitions	All Stages
Water shortage pricing	All Stages
Per capita allotment by customer type	4
Plumbing fixture replacement	All Stages
Voluntary rationing	1, 2
Mandatory rationing	3, 4
Incentives to reduce water consumption	1, 2
Education Program	All Stages
Percentage reduction by customer type	2, 3, 4
Use non-potable water for construction purposes	All Stages

TABLE 27 MANDATORY PROHIBITIONS	
Prohibitions	**Stage When Prohibition Becomes Mandatory**
Irrigation of landscape, except for hand watering and/or the use of a drip irrigation system, between the hours of 8:00 AM and 8:00 PM during the months of May, June, July, August, September, and October unless a special permit is issued to accommodate newly planted material.	At all times
Use of potable water to wash hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios, and alleys, except when necessary to alleviate safety or sanitary hazards, and then only by use of devices approved by Ordinance No. 93, including a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, a low-volume water broom, or a high-pressure cleaning machine equipped to recycle any water used.	At all times
Knowingly allowing water to leak through water connections, hoses, faucets, pipes, outlets, or other plumbing fixtures.	At all times
Washing cars, boats, trailers, aircraft, or other vehicles by hose without a shutoff nozzle and bucket, except to wash such vehicles at commercial car washing facilities that recycle water.	At all times
Use of potable water to clean, fill, or maintain decorative fountains, lakes, or ponds, unless such water is recycled.	At all times

In addition to the mandatory prohibitions listed in Table 27, Ordinance 100 adds the following measures during the term of its effect: Outdoor landscape irrigation is limited to three days per week according to the last digit of the address; Tuesday, Thursday, Saturday for even numbers and Wednesday, Friday, Sunday for odd numbers. No watering is permitted on Mondays. Also, outdoor watering is limited to one day per week November thru February: Saturday for even numbers and Sunday for odd numbers.

The District has prepared a Draft Moratorium on New Connections During a Water Shortage, which is included in **Appendix M**. If adopted, the Moratorium on New Connections During a Water Shortage would prohibit the District from committing to provide new or expanded water service during a declared water shortage emergency.

b. Water Efficient Landscape Conditions

On December 14, 2009, the District adopted two ordinances (Ordinances 90 and 91) requiring water-efficient landscape as a condition of new District water service. These ordinances were superseded on December 14, 2015 by the adoption of Ordinances 98 and 99. Copies of Ordinances 98 and 99 are included in **Appendix K** herein.

Ordinance No. 98 pertains to single family dwellings and imposes the following restrictions on landscape as a condition of new water service:

- There shall be no turf (defined as a surface layer of earth containing mowed or unmowed living grass with its roots) allowed in the landscape area of the front yard.
- Only the plants from the approved plant list, on file and maintained by the District, shall be used within the landscape area of the front yard.
- The irrigation system in the landscape area of the front yard must be a low-volume irrigation system.

- All irrigation devices must use high-efficiency sprinkler heads.
- All irrigation systems must have pressure regulators and master shut-off valves.
- The landscape area shall be designed to eliminate any runoff.

Ordinance No. 99 pertains to multi-family dwellings, commercial, and institutional water service, and imposes the following restrictions on landscape as a condition of new water service:

- Turf and/or any plants not on the approved plant list are limited to up to 50% of the landscape area.
- High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians.
- Only the plants from the approved plant list, on file and maintained by the District, shall be used within the remaining landscape area.
- The irrigation system in the remaining landscape area must be a low-volume irrigation system.
- All irrigation devices must use high efficiency sprinkler heads.
- All irrigation systems must have pressure regulators and master shut-off valves.
- All of the landscape area shall be designed to eliminate any runoff.

c. Excessive Use Penalties

The District's current rate structure is provided in Ordinance No. 96, adopted March 9, 2015, which is incorporated herein by reference and is available for review at the District's office and on their website at www.iwvwd.com. During any declared water shortage emergency, a customer who exceeds the established allotment will pay a surcharge of two times the highest rate tier per ccf for excess water delivered during the first or second billing period, and a surcharge of four times the highest rate tier per ccf for excess water delivered during the third and subsequent consecutive billing periods.

As used herein, "excess water" means the amount of water delivered in excess of the specific customer's established allotment during any billing period; however, if a customer's total annual usage is equal to or less than the annual allotment, any surcharge payments will be refunded to the customer. A similar adjustment will be made for each successive twelve-month period during the term of the rationing program. If the rationing program is terminated prior to a full twelve-month term, the adjustment will be prorated.

If a customer exceeds the allotted usage for three consecutive billing periods, the District will install a flow-restrictor at the service meter with a capacity of 2 gpm for meters up to one and one-half inch size, and comparatively sized restrictors for larger meters, for a period of seven days. The customer must pay a flow restrictor installation and removal charge of $100 before the normal service will be restored. Service may be terminated to any customer who knowingly and willfully violates any provision of the Water Shortage Contingency Plan.

8. Reduction Measuring Mechanism

a. Normal Monitoring Procedure

In normal water supply conditions, production figures are recorded daily in the District's computerized database. Total production and consumption by all categories of customers are reported monthly to District management and

incorporated into the Water Supply Report. Tank levels and pumping plants are monitored on a continuous basis by telemetry at the District's headquarters, with alarms for abnormal conditions.

b. Stage 1 and 2 Water Shortages

During a Stage 1 or 2 water shortage, daily production figures will be reported to the Operations Superintendent, who will compare the weekly production to the target weekly production to verify that the reduction goal is being met. Weekly reports will be forwarded to the General Manager.

c. Water Shortage Response Team

Monthly reports will be provided to the Board of Directors and to the Customer Accounts Department; the latter will serve as the District's Water Shortage Response Team. If reduction goals are not met, the Water Shortage Response Team will examine individual customer usages, and corrective action will be taken.

d. Stage 3 and 4 Water Shortages

During a Stage 3 or 4 water shortage, the procedure listed above will be followed, with the addition of a daily production report to the General Manager.

e. Disaster Shortage

During a disaster shortage, production figures will be reported to the Operations Superintendent hourly, and to the General Manager and the Water Shortage Response Team daily. Reports will also be provided to the Indian Wells Valley Emergency Services Council.

9. Analysis of Revenue Impacts of Reduced Sales During Shortages

The District's normal annual income from water sales is approximately $7,900,000. Surplus revenues are placed in the District's reserve, which is used to fund emergency repairs, water system capital improvements, conservation, and alternative water supply. The District maintains a financial reserve that is adequate to address the costs of multiple plant repairs. The District does not project a substantial impact on water sales due to shortages and is adequately funded to respond to emergencies. **Tables 28 through 31** summarize actions and conditions that impact revenues and expenditures, as well as proposed measures to overcome the impacts of such actions and conditions.

TABLE 28
ACTIONS AND CONDITIONS THAT IMPACT REVENUES

Type	Anticipated Revenue Reduction
Natural Disaster	Dependent on severity
Plant Failure	Minimum revenue reduction

TABLE 29
ACTIONS AND CONDITIONS THAT IMPACT EXPENDITURES

Category	Anticipated Cost
Natural Disaster	Increased staff costs; facility repair costs
Plant Failure	Facility repair costs
Water Supply Contamination	Increased costs of supply and treatment

TABLE 30
PROPOSED MEASURES TO OVERCOME REVENUE IMPACTS

Names of Measures	Summary of Effects
Rate adjustment or assessment	Increased revenue
Development of reserves	IWVWD has a reserve fund
FEMA/Cal EMA [(1)]	Funding assistance during a disaster

[(1)] United States Department of Homeland Security Federal Emergency Management Agency/California Emergency Management Agency

TABLE 31 PROPOSED MEASURES TO OVERCOME EXPENDITURE IMPACTS	
Names of Measures	**Summary of Effects**
Rate adjustment or assessment	Increased revenue
Maintain reserve fund	IWVWD currently maintains a reserve fund
FEMA/Cal EMA [1]	Funding assistance during a disaster

[1] United States Department of Homeland Security Federal Emergency Management Agency/California Emergency Management Agency

In the event of a short-term water shortage lasting six months or less, the District has established an emergency reserve equal to six months of operating expenses less depreciation. The use of this reserve is intended to guard the District from the temporary effects of reduced revenues and increased expenses. Should the shortage be expected to extend past six months, a change to the regular rate structure would be considered to responsibly budget for the District's continued operations during the shortage.

C. WATER QUALITY

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

1. General

Groundwater quantity and quality vary significantly within the Basin. The United States Department of the Interior Bureau of Reclamation (Reclamation), while conducting an investigation that it described in its report titled *Indian Wells Valley Groundwater Project* (1993), found that the Southwest Area contains a significant quantity of high-quality groundwater. Water in the Northwest Area is of generally poorer quality than water elsewhere in the Basin and may not be usable for domestic purposes unless it receives significant amounts of treatment or is blended with good quality water. For the most part, water produced from the Northwest Area has been used for agricultural purposes. The District is currently in the process of conducting a study in partnership with other stakeholders to quantify the local brackish water resources in order to determine the feasibility of treating water from the Northwest Area for future domestic use.

The quality of the District's water source is discussed in additional detail below; however, the District does not anticipate any impacts on the reliability of its water supply due to water quality in the foreseeable future.

2. Total Dissolved Solids (TDS)

Total dissolved solids (TDS, also known as Total Filterable Residue, or TFR) is a measure of salinity in water, and is often used as an indicator of overall groundwater quality. The California Secondary Maximum Contaminant Level (MCL) for TDS is 1,000 parts per million (ppm). Secondary MCLs are based on consumer acceptance (taste, odor, color, etc.) rather than public health concerns. There is also a recommended MCL of 500 ppm and a Short-Term MCL of 1,500 ppm.

In general, the TDS of the groundwater in the Indian Wells Valley is highest in the northeasterly portion of the valley (the China Lake playa), where TDS levels can exceed 5,000 ppm, and lowest in the Intermediate Area and the areas located southerly and southwesterly of the city of Ridgecrest, where TDS levels are typically below 500 ppm (based on water quality data from the Navy, Kern County Water Agency, previous studies, and District files).

Water levels in the valley are decreasing by approximately 0.50 to 1.50 feet per year as an average over the whole of the Basin. Areas where large production wells are located exhibit decreases of about 2.0 feet per year, while areas of no production show areas of slight (0.20 to 0.30 feet) water-level decline[3]. Although degradation has not been detected within the Intermediate Area, and water quality therein is still excellent (typically less than 500 ppm of TDS), a continuing decline of the water levels in the Intermediate area could increase the threat of saline water intrusion from beneath the China Lake Playa.

[3] *Installation and Implementation of a Comprehensive Groundwater Monitoring Program for the Indian Wells Valley, California*, dated April 2010, prepared by Indian Wells Valley Cooperative Groundwater Technical Advisory Committee and Geochemical Technologies Corporation.

The District began production from the Southwest Well Field (SWWF), located westerly of the city of Ridgecrest, in 2001. Development of wells in the SWWF portion of the Basin has reduced the District's dependence upon its Intermediate Area wells. Since wells in the SWWF have augmented the District's water supply, static groundwater levels in the Intermediate Area have improved.

3. Arsenic

District Wells 9A, 10, 11, and 13 produce water containing arsenic at levels exceeding the maximum contaminant level (MCL) of 10 parts per billion (ppb). The United States Environmental Protection Agency (USEPA) reduced the maximum contaminant level (MCL) for arsenic in drinking water in 2006 from 50 ppb to 10 ppb. The California Department of Public Health (CDPH) subsequently adopted the 10 ppb arsenic MCL in November 2008.

Two arsenic removal facilities have been constructed in order to remove arsenic from wells 9A, 10, 11, and 13 and have been operational since 2011. With treatment, water entering the District's distribution system from these wells is below the 10 ppb MCL for arsenic.

SECTION 7

DEMAND MANAGEMENT MEASURES

SECTION 7
DEMAND MANAGEMENT MEASURES

Water Code

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

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

(1) (A) For an urban retail water supplier…a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:

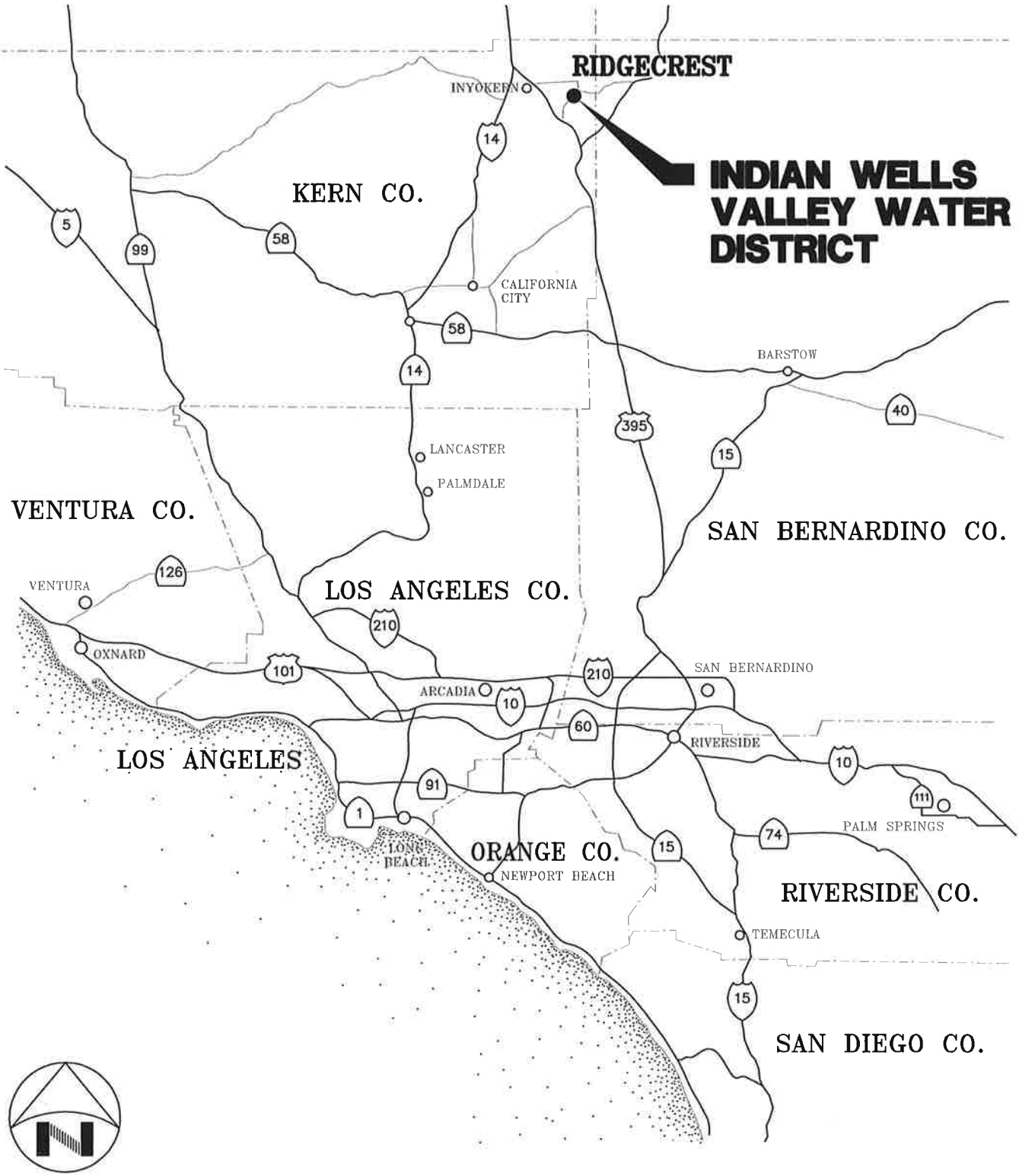
(i) Water waste prevention ordinances.
(ii) Metering.
(iii) Conservation pricing.
(iv) Public education and outreach.
(v) Programs to assess and manage distribution system real loss.
(vi) Water conservation program coordination and staffing support.
(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

(i) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivision (f) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California", dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.

The Best Management Practices (BMPs) that are defined by the California Urban Water Conservation Council (CUWCC) in the *Memorandum of Understanding Regarding Urban Water Conservation in California* (MOU), as amended, generally correspond to the Demand Management Measures set forth in Section 10631(f) of the Water Code. The CUWCC was formed to increase efficient water use statewide through partnerships among urban water agencies, public interest organizations, and private entities. The District is a signatory to the MOU, and is therefore a member of the CUWCC.

Pursuant to Water Code Section 10631(i), water suppliers may meet the requirements for Demand Management Measures, as set forth in Water Code Section 10631(f), by complying with all provisions of the MOU, as amended, and by submitting the annual reports required by said MOU. In accordance with Water Code Section 10631(i), the District has elected to provide documentation of compliance with the MOU in order to meet the requirements related to Demand Management Measures. Copies of the Districts CUWCC BMP Coverage Reports for years 2013 and 2014 are included in **Appendix N** herein.

FIGURES



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INDIAN WELLS VALLEY WATER DISTRICT

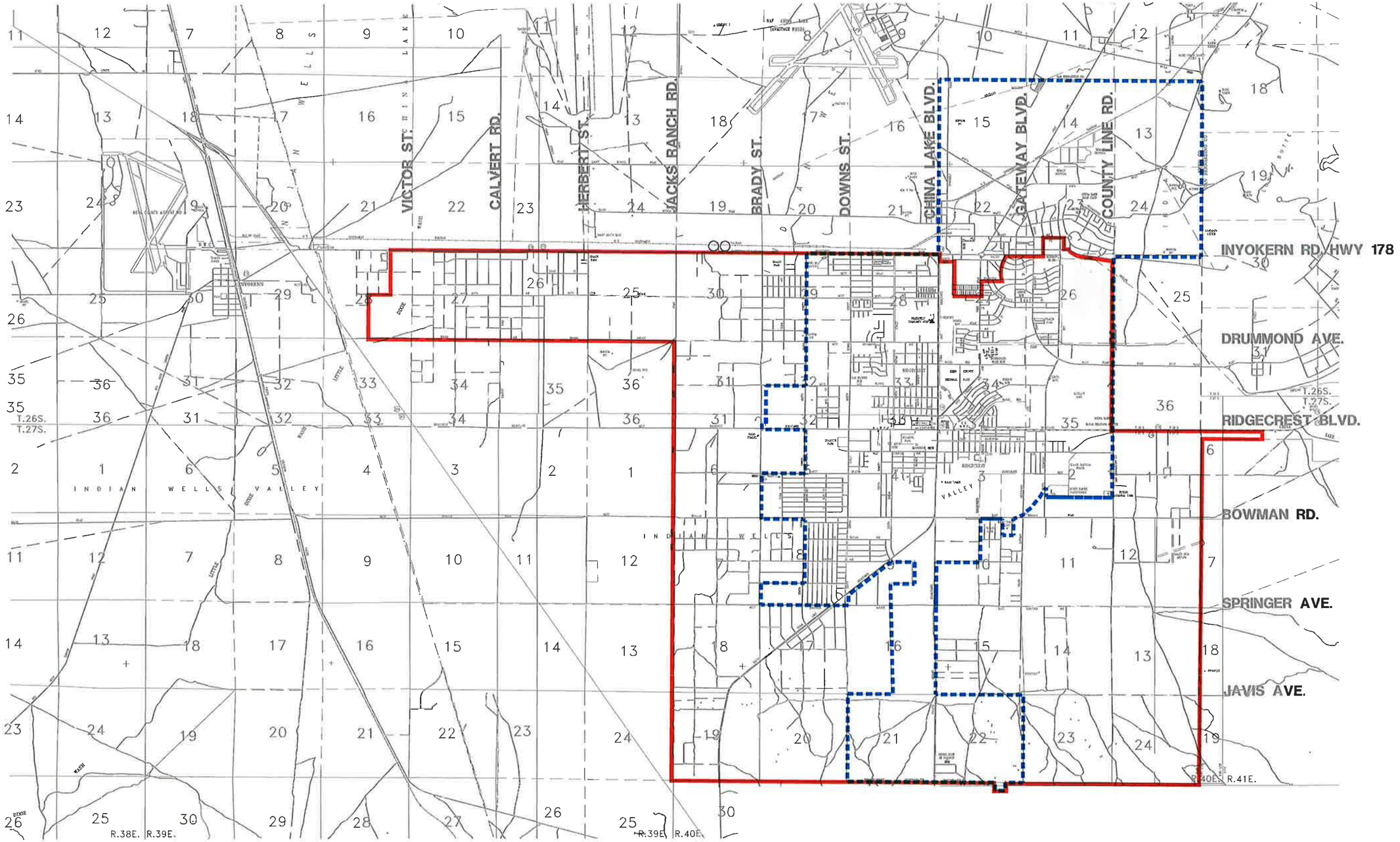
2015 URBAN WATER MANAGEMENT PLAN

VICINITY MAP

FIGURE 1 OF 2

SCALE: N.T.S. DATE: 03/10/16 DRAWN BY: MRN CHECKED BY: VEM W.O.: 178-64.5

178-64p5f1.dwg



LEGEND

- INDIAN WELLS VALLEY WATER DISTRICT BOUNDARY
- CITY OF RIDGECREST BOUNDARY

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

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INDIAN WELLS VALLEY WATER DISTRICT

2015 URBAN WATER MANAGEMENT PLAN

DISTRICT SERVICE AREA BOUNDARY

FIGURE 2 OF 2

SCALE: 1"=6000' DATE: 03/10/16 DRAWN BY: MRN CHECKED BY: VEM W.O.: 178-64.5

178-64p5f2.dwg

APPENDIX A

CALIFORNIA URBAN WATER MANAGEMENT PLANNING ACT
AND
APPLICABLE SECTIONS OF THE CALIFORNIA WATER CONSERVATION ACT

California Water Code Division 6, Part 2.6.
Chapter 1. General Declaration and Policy §10610-10610.4
Chapter 2. Definitions §10611-10617
Chapter 3. Urban Water Management Plans
Article 1. General Provisions §10620-10621
Article 2. Contents of Plans §10630-10634
Article 2.5. Water Service Reliability §10635
Article 3. Adoption And Implementation of Plans §10640-10645
Chapter 4. Miscellaneous Provisions §10650-10656

Chapter 1. General Declaration and Policy

SECTION 10610-10610.4

10610. This part shall be known and may be cited as the "Urban Water Management Planning Act."

10610.2. (a) The Legislature finds and declares all of the following:

(1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.

(2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.

(3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.

(4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.

(5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.

(6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.

(7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.

(8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.

(9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.

(b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

10610.4. The Legislature finds and declares that it is the policy of the state as follows:

(a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.

(b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.

(c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.

Chapter 2. Definitions

SECTION 10611-10617

10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

10611.5. “Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

10612. "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

10613. "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

10614. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses,

reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

10616. "Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.

10616.5. "Recycled water" means the reclamation and reuse of wastewater for beneficial use.

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

Chapter 3. Urban Water Management Plans

Article 1. General Provisions

SECTION 10620-10621

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

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

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

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

(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that

share a common source, water management agencies, and relevant public agencies, to the extent practicable.

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

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

10621. (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero, except as provided in subdivision (d).

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

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

(d) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

Article 2. Contents of Plan

SECTION 10630-10634

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

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

(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

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

water available to the supplier, all of the following information shall be included in the plan:

(1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

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

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

(c) (1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

(A) An average water year.

(B) A single-dry water year.

(C) Multiple-dry water years.

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

(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

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

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

(J) Distribution system water loss.

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

(3) (A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.

(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

(4) (A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:

(i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.

(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

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

(1) (A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:

(i) Water waste prevention ordinances.

(ii) Metering.

(iii) Conservation pricing.

(iv) Public education and outreach.

(v) Programs to assess and manage distribution system real loss.

(vi) Water conservation program coordination and staffing support.

(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

(2) For an urban wholesale water supplier, as defined in Section 10608.12, a narrative description of the items in clauses (ii), (iv), (vi), and (vii) of subparagraph (B) of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.

(g) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water

use, as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

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

(i) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivision (f) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.

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

10631.1. (a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.

(b) It is the intent of the Legislature that the identification of projected water use for single-family and multifamily residential housing for lower income households will assist a supplier in complying with the requirement under Section 65589.7 of the Government Code to grant a priority for the provision of service to housing units affordable to lower income households.

10631.2. (a) In addition to the requirements of Section 10631, an urban water management plan may, but is not required to, include any of the following information:

(1) An estimate of the amount of energy used to extract or divert water supplies.

(2) An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems.

(3) An estimate of the amount of energy used to treat water supplies.

(4) An estimate of the amount of energy used to distribute water supplies through its distribution systems.

(5) An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies.

(6) An estimate of the amount of energy used to place water into or withdraw from storage.

(7) Any other energy-related information the urban water supplier deems appropriate.

(b) The department shall include in its guidance for the preparation of urban water management plans a methodology for the voluntary calculation or estimation of the energy intensity of urban water systems. The department may consider studies and calculations conducted by the Public Utilities Commission in developing the methodology.

10631.5. (a) (1) Beginning January 1, 2009, the terms of, and eligibility for, a water management grant or loan made to an urban water supplier and awarded or administered by the department, state board, or California Bay-Delta Authority or its successor agency shall be conditioned on the implementation of the water demand management measures described in Section 10631, as determined by the department pursuant to subdivision (b).

(2) For the purposes of this section, water management grants and loans include funding for programs and projects for surface water or groundwater storage, recycling, desalination, water conservation, water supply reliability, and water supply augmentation. This section does not apply to water management projects funded by the federal American Recovery and Reinvestment Act of 2009 (Public Law 111-5).

(3) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if the urban water supplier has

submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the water demand management measures. The supplier may request grant or loan funds to implement the water demand management measures to the extent the request is consistent with the eligibility requirements applicable to the water management funds.

(4) (A) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if an urban water supplier submits to the department for approval documentation demonstrating that a water demand management measure is not locally cost effective. If the department determines that the documentation submitted by the urban water supplier fails to demonstrate that a water demand management measure is not locally cost effective, the department shall notify the urban water supplier and the agency administering the grant or loan program within 120 days that the documentation does not satisfy the requirements for an exemption, and include in that notification a detailed statement to support the determination.

(B) For purposes of this paragraph, "not locally cost effective" means that the present value of the local benefits of implementing a water demand management measure is less than the present value of the local costs of implementing that measure.

(b) (1) The department, in consultation with the state board and the California Bay-Delta Authority or its successor agency, and after soliciting public comment regarding eligibility requirements, shall develop eligibility requirements to implement the requirement of paragraph (1) of subdivision (a). In establishing these eligibility requirements, the department shall do both of the following:

(A) Consider the conservation measures described in the Memorandum of Understanding Regarding Urban Water Conservation in California, and alternative conservation approaches that provide equal or greater water savings.

(B) Recognize the different legal, technical, fiscal, and practical roles and responsibilities of wholesale water suppliers and retail water suppliers.

(2) (A) For the purposes of this section, the department shall determine whether an urban water supplier is implementing all of the water demand management measures described in Section 10631 based on either, or a combination, of the following:

(i) Compliance on an individual basis.

(ii) Compliance on a regional basis. Regional compliance shall require participation in a regional conservation program consisting of two or more urban water suppliers that achieves the level of conservation or water efficiency savings equivalent to the amount of conservation or savings achieved if each of the participating urban water suppliers implemented the water demand management measures. The urban water supplier administering the regional program shall provide participating urban water suppliers and the department with data to demonstrate that the regional program is consistent with this clause. The department shall review the data to determine whether the urban water suppliers in the regional program are meeting the eligibility requirements.

(B) The department may require additional information for any determination pursuant to this section.

(3) The department shall not deny eligibility to an urban water supplier in compliance with the requirements of this section that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the water demand management measures described in Section 10631.

(c) In establishing guidelines pursuant to the specific funding authorization for any water management grant or loan program subject to this section, the agency administering the grant or loan program shall include in the guidelines the eligibility requirements developed by the department pursuant to subdivision (b).

(d) Upon receipt of a water management grant or loan application by an agency administering a grant and loan program subject to this section, the agency shall request an eligibility determination from the department with respect to the requirements of this section. The department shall respond to the request within 60 days of the request.

(e) The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities. In addition, for urban water suppliers that are signatories to the Memorandum of Understanding Regarding Urban Water Conservation in California and submit biennial reports to the California Urban Water Conservation Council in accordance with the memorandum, the department may use these reports to assist in tracking the implementation of water demand management measures.

(f) This section shall remain in effect only until July 1, 2016, and as of that date is repealed, unless a later enacted statute, that is enacted before July 1, 2016, deletes or extends that date.

10631.7. The department, in consultation with the California Urban Water Conservation Council, shall convene an independent technical panel to provide information and recommendations to the department and the Legislature on new demand management measures, technologies, and approaches. The panel shall consist of no more than seven members, who shall be selected by the department to reflect a balanced representation of experts. The panel shall have at least one, but no more than two, representatives from each of the following: retail water suppliers, environmental organizations, the business community, wholesale water suppliers, and academia. The panel shall be convened by January 1, 2009, and shall report to the Legislature no later than January 1, 2010, and every five years thereafter. The department shall review the panel report and include in the final report to the Legislature the department's recommendations and comments regarding the panel process and the panel's recommendations.

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

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

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

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

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

(5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are

appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

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

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

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

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

(b) Commencing with the urban water management plan update due July 1, 2016, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

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

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

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

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

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

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

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

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

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

Article 2.5. Water Service Reliability

SECTION 10635

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

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

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

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

Article 3. Adoption and Implementation of Plans

SECTION 10640-10645

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630). The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

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

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

After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

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

10644. (a) (1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

(2) The plan, or amendments to the plan, submitted to the department pursuant to paragraph (1) shall be submitted electronically and shall include any standardized forms, tables, or displays specified by the department.

(b) (1) Notwithstanding Section 10231.5 of the Government Code, the department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part.

The report prepared by the department shall identify the exemplary elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

(2) A report to be submitted pursuant to paragraph (1) shall be submitted in compliance with Section 9795 of the Government Code.

(c) (1) For the purpose of identifying the exemplary elements of the individual plans, the department shall identify in the report water demand management measures adopted and implemented by specific urban water suppliers, and identified pursuant to Section 10631, that achieve water savings significantly above the levels established by the department to meet the requirements of Section 10631.5.

(2) The department shall distribute to the panel convened pursuant to Section 10631.7 the results achieved by the implementation of those water demand management measures described in paragraph (1).

(3) The department shall make available to the public the standard the department will use to identify exemplary water demand management measures.

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

Chapter 4. Miscellaneous Provisions

SECTION 10650-10656

10650. Any actions or proceedings to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

(a) An action or proceeding alleging failure to adopt a plan shall be commenced within 18 months after that adoption is required by this part.

(b) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 90 days after filing of the plan or amendment thereto pursuant to Section 10644 or the taking of that action.

10651. In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

10652. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

10653. The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the State Water Resources Control Board and the Public Utilities Commission, for the preparation of water management plans or conservation plans; provided, that if the State Water Resources Control Board or the Public Utilities Commission requires additional information concerning water conservation to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan prepared to meet federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

10654. An urban water supplier may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan. Any best water management practice that is included in the plan that is identified in the "Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.

10655. If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.

10656. An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance with this part, is ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26

(commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.

California Water Code Division 6, Part 2.55.

Chapter 1. General Declarations and Policy §10608-10608.8
Chapter 2. Definitions §10608.12
Chapter 3. Urban Retail Water Suppliers §10608.16-10608.44
Chapter 4. Agricultural Water Suppliers §10608.48
Chapter 5. Sustainable Water Management §10608.50
Chapter 6 Standardized Data Collection §10608.52
Chapter 7 Funding Provisions §10608.56-10608.60
Chapter 8 Quantifying Agricultural Water Use Efficiency §10608.64

Chapter 1. General Declarations and Policy

SECTION 10608-10608.8

10608. The Legislature finds and declares all of the following:

(a) Water is a public resource that the California Constitution protects against waste and unreasonable use.

(b) Growing population, climate change, and the need to protect and grow California's economy while protecting and restoring our fish and wildlife habitats make it essential that the state manage its water resources as efficiently as possible.

(c) Diverse regional water supply portfolios will increase water supply reliability and reduce dependence on the Delta.

(d) Reduced water use through conservation provides significant energy and environmental benefits, and can help protect water quality, improve streamflows, and reduce greenhouse gas emissions.

(e) The success of state and local water conservation programs to increase efficiency of water use is best determined on the basis of measurable outcomes related to water use or efficiency.

(f) Improvements in technology and management practices offer the potential for increasing water efficiency in California over time, providing an essential water management tool to meet the need for water for urban, agricultural, and environmental uses.

(g) The Governor has called for a 20 percent per capita reduction in urban water use statewide by 2020.

(h) The factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency.

(i) Per capita water use is a valid measure of a water provider's efforts to reduce urban water use within its service area. However, per capita water use is less useful for measuring relative water use efficiency between different water providers. Differences in weather, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.

10608.4. It is the intent of the Legislature, by the enactment of this part, to do all of the following:

(a) Require all water suppliers to increase the efficiency of use of this essential resource.

(b) Establish a framework to meet the state targets for urban water conservation identified in this part and called for by the Governor.

(c) Measure increased efficiency of urban water use on a per capita basis.

(d) Establish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in accordance with the Governor's goal of a 20-percent reduction.

(e) Establish consistent water use efficiency planning and implementation standards for urban water suppliers and agricultural water suppliers.

(f) Promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in Section 10631.

(g) Establish standards that recognize and provide credit to water suppliers that made substantial capital investments in urban water conservation since the drought of the early 1990s.

(h) Recognize and account for the investment of urban retail water suppliers in providing recycled water for beneficial uses.

(i) Require implementation of specified efficient water management practices for agricultural water suppliers.

(j) Support the economic productivity of California's agricultural, commercial, and industrial sectors.

(k) Advance regional water resources management.

10608.8. (a) (1) Water use efficiency measures adopted and implemented pursuant to this part or Part 2.8 (commencing with Section 10800) are water conservation measures subject to the protections provided under Section 1011.

(2) Because an urban agency is not required to meet its urban water use target until 2020 pursuant to subdivision (b) of Section 10608.24, an urban retail water supplier's failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to

January 1, 2021. Nothing in this paragraph limits the use of data reported to the department or the board in litigation or an administrative proceeding. This paragraph shall become inoperative on January 1, 2021.

(3) To the extent feasible, the department and the board shall provide for the use of water conservation reports required under this part to meet the requirements of Section 1011 for water conservation reporting.

(b) This part does not limit or otherwise affect the application of Chapter 3.5 (commencing with Section 11340), Chapter 4 (commencing with Section 11370), Chapter 4.5 (commencing with Section 11400), and Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.

(c) This part does not require a reduction in the total water used in the agricultural or urban sectors, because other factors, including, but not limited to, changes in agricultural economics or population growth may have greater effects on water use. This part does not limit the economic productivity of California's agricultural, commercial, or industrial sectors.

(d) The requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement, as defined in subdivision (a) of Section 1 of Chapter 617 of the Statutes of 2002, during the period within which the Quantification Settlement Agreement remains in effect. After the expiration of the Quantification Settlement Agreement, to the extent conservation water projects implemented as part of the Quantification Settlement Agreement remain in effect, the conserved water created as part of those projects shall be credited against the obligations of the agricultural water supplier pursuant to this part.

Chapter 2 Definitions

SECTION 10608.12

10608.12. Unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Agricultural water supplier" means a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. "Agricultural water supplier" includes a supplier or contractor for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. "Agricultural water supplier" does not include the department.

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

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

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

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

(c) "Baseline commercial, industrial, and institutional water use" means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.

(d) "Commercial water user" means a water user that provides or distributes a product or service.

(e) "Compliance daily per capita water use" means the gross water use during the final year of the reporting period, reported in gallons per capita per day.

(f) "Disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.

(g) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:

(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.

(2) The net volume of water that the urban retail water supplier places into long-term storage.

(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.

(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.

(h) "Industrial water user" means a water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.

(i) "Institutional water user" means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.

(j) "Interim urban water use target" means the midpoint between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020.

(k) "Locally cost effective" means that the present value of the local benefits of implementing an agricultural efficiency water management practice is greater than or equal to the present value of the local cost of implementing that measure.

(l) "Process water" means water used for producing a product or product content or water used for research and development, including, but not limited to, continuous manufacturing processes, water used for testing and maintaining equipment used in producing a product or product content, and water used in combined heat and power facilities used in producing a product or product content. Process water does not mean incidental water uses not related to the production of a product or product content, including, but not limited to, water used for restrooms, landscaping, air conditioning, heating, kitchens, and laundry.

(m) "Recycled water" means recycled water, as defined in subdivision (n) of Section 13050, that is used to offset potable demand, including recycled water supplied for direct use and indirect potable reuse, that meets the following requirements, where applicable:

(1) For groundwater recharge, including recharge through spreading basins, water supplies that are all of the following:

(A) Metered.

(B) Developed through planned investment by the urban water supplier or a wastewater treatment agency.

(C) Treated to a minimum tertiary level.

(D) Delivered within the service area of an urban retail water supplier or its urban wholesale water supplier that helps an urban retail water supplier meet its urban water use target.

(2) For reservoir augmentation, water supplies that meet the criteria of paragraph (1) and are conveyed through a distribution system constructed specifically for recycled water.

(n) "Regional water resources management" means sources of supply resulting from watershed-based planning for sustainable local water reliability or any of the following alternative sources of water:

(1) The capture and reuse of stormwater or rainwater.

(2) The use of recycled water.

(3) The desalination of brackish groundwater.

(4) The conjunctive use of surface water and groundwater in a manner that is consistent with the safe yield of the groundwater basin.

(o) "Reporting period" means the years for which an urban retail water supplier reports compliance with the urban water use targets.

(p) "Urban retail water supplier" means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

(q) "Urban water use target" means the urban retail water supplier's targeted future daily per capita water use.

(r) "Urban wholesale water supplier," means a water supplier, either publicly or privately owned, that provides more than 3,000 acre-feet of water annually at wholesale for potable municipal purposes.

Chapter 3 Urban Retail Water Suppliers

SECTION 10608.16-10608.44

10608.16.(a) The state shall achieve a 20-percent reduction in urban per capita water use in California on or before December 31, 2020.

(b) The state shall make incremental progress towards the state target specified in subdivision (a) by reducing urban per capita water use by at least 10 percent on or before December 31, 2015.

10608.20.(a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

(2) It is the intent of the Legislature that the urban water use targets described in paragraph (1) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.

(b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):

(1) Eighty percent of the urban retail water supplier's baseline per capita daily water use.

(2) The per capita daily water use that is estimated using the sum of the following performance standards:

(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.

(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

(C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.

(3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.

(4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:

(A) Consider climatic differences within the state.

(B) Consider population density differences within the state.

(C) Provide flexibility to communities and regions in meeting the targets.

(D) Consider different levels of per capita water use according to plant water needs in different regions.

(E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.

(F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.

(c) If the department adopts a regulation pursuant to paragraph (4) of subdivision (b) that results in a requirement that an urban retail water supplier achieve a reduction in daily per capita water use that is greater than 20 percent by December 31, 2020, an urban retail water supplier that adopted the method

described in paragraph (4) of subdivision (b) may limit its urban water use target to a reduction of not more than 20 percent by December 31, 2020, by adopting the method described in paragraph (1) of subdivision (b).

(d) The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.

(e) An urban retail water supplier shall include in its urban water management plan due in 2010 pursuant to Part 2.6 (commencing with Section 10610) the 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.

(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

(h) (1) The department, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:

(A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.

(B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.

(2) The department shall post the methodologies and criteria developed pursuant to this subdivision on its Internet Web site, and make written copies available, by October 1, 2010. An urban retail water supplier shall use the methods developed by the department in compliance with this part.

(i) (1) The department shall adopt regulations for implementation of the provisions relating to process water in accordance with subdivision (l) of Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the

Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

(j) (1) An urban retail water supplier is granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow the use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.

(2) An urban wholesale water supplier whose urban water management plan prepared pursuant to Part 2.6 (commencing with Section 10610) was due and not submitted in 2010 is granted an extension to July 1, 2011, to permit coordination between an urban wholesale water supplier and urban retail water suppliers.

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

10608.24.(a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.

(b) Each urban retail water supplier shall meet its urban water use target by December 31, 2020.

(c) An urban retail water supplier's compliance daily per capita water use shall be the measure of progress toward achievement of its urban water use target.

(d) (1) When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:

(A) Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.
(B) Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.

(C) Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.

(2) If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in

paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.

(e) When developing the urban water use target pursuant to Section 10608.20, an urban retail water supplier that has a substantial percentage of industrial water use in its service area may exclude process water from the calculation of gross water use to avoid a disproportionate burden on another customer sector.

(f) (1) An urban retail water supplier that includes agricultural water use in an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) may include the agricultural water use in determining gross water use. An urban retail water supplier that includes agricultural water use in determining gross water use and develops its urban water use target pursuant to paragraph (2) of subdivision (b) of Section 10608.20 shall use a water efficient standard for agricultural irrigation of 100 percent of reference evapotranspiration multiplied by the crop coefficient for irrigated acres.

(2) An urban retail water supplier, that is also an agricultural water supplier, is not subject to the requirements of Chapter 4 (commencing with Section 10608.48), if the agricultural water use is incorporated into its urban water use target pursuant to paragraph (1).

10608.26.(a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.

(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.

(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20, for determining its urban water use target.

(b) In complying with this part, an urban retail water supplier may meet its urban water use target through efficiency improvements in any combination among its customer sectors. An urban retail water supplier shall avoid placing a disproportionate burden on any customer sector.

(c) For an urban retail water supplier that supplies water to a United States Department of Defense military installation, the urban retail water supplier's implementation plan for complying with this part shall consider the conservation of that military installation under federal Executive Order 13514.

(d) (1) Any ordinance or resolution adopted by an urban retail water supplier after the effective date of this section shall not require existing customers as of the effective date of this section, to undertake changes in product formulation, operations, or equipment that would reduce process water use, but may provide technical assistance and financial incentives to those customers to implement efficiency measures for process water. This section shall not limit

an ordinance or resolution adopted pursuant to a declaration of drought emergency by an urban retail water supplier.

(2) This part shall not be construed or enforced so as to interfere with the requirements of Chapter 4 (commencing with Section 113980) to Chapter 13 (commencing with Section 114380), inclusive, of Part 7 of Division 104 of the Health and Safety Code, or any requirement or standard for the protection of public health, public safety, or worker safety established by federal, state, or local government or recommended by recognized standard setting organizations or trade associations.

10608.28.(a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement, by any of the following:

(1) Through an urban wholesale water supplier.

(2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).

(3) Through a regional water management group as defined in Section 10537.

(4) By an integrated regional water management funding area.

(5) By hydrologic region.

(6) Through other appropriate geographic scales for which computation methods have been developed by the department.

(b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.

10608.32. All costs incurred pursuant to this part by a water utility regulated by the Public Utilities Commission may be recoverable in rates subject to review and approval by the Public Utilities Commission, and may be recorded in a memorandum account and reviewed for reasonableness by the Public Utilities Commission.

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

10608.40. Urban water retail suppliers shall report to the department on their progress in meeting their urban water use targets as part of their urban water management plans

submitted pursuant to Section 10631. The data shall be reported using a standardized form developed pursuant to Section 10608.52.

10608.42.(a) The department shall review the 2015 urban water management plans and report to the Legislature by July 1, 2017, on progress towards achieving a 20-percent reduction in urban water use by December 31, 2020. The report shall include recommendations on changes to water efficiency standards or urban water use targets to achieve the 20-percent reduction and to reflect updated efficiency information and technology changes.

(b) A report to be submitted pursuant to subdivision (a) shall be submitted in compliance with Section 9795 of the Government Code.

10608.43. The department, in conjunction with the California Urban Water Conservation Council, by April 1, 2010, shall convene a representative task force consisting of academic experts, urban retail water suppliers, environmental organizations, commercial water users, industrial water users, and institutional water users to develop alternative best management practices for commercial, industrial, and institutional users and an assessment of the potential statewide water use efficiency improvement in the commercial, industrial, and institutional sectors that would result from implementation of these best management practices. The taskforce, in conjunction with the department, shall submit a report to the Legislature by April 1, 2012, that shall include a review of multiple sectors within commercial, industrial, and institutional users and that shall recommend water use efficiency standards for commercial, industrial, and institutional users among various sectors of water use. The report shall include, but not be limited to, the following:

(a) Appropriate metrics for evaluating commercial, industrial, and institutional water use.

(b) Evaluation of water demands for manufacturing processes, goods, and cooling.

(c) Evaluation of public infrastructure necessary for delivery of recycled water to the commercial, industrial, and institutional sectors.

(d) Evaluation of institutional and economic barriers to increased recycled water use within the commercial, industrial, and institutional sectors.

(e) Identification of technical feasibility and cost of the best management practices to achieve more efficient water use statewide in the commercial, industrial, and institutional sectors that is consistent with the public interest and reflects past investments in water use efficiency.

10608.44. Each state agency shall reduce water use at facilities it operates to support urban retail water suppliers in meeting the target identified in Section 10608.16.

Chapter 4 Agricultural Water Suppliers

SECTION 10608.48

10608.48.(a) On or before July 31, 2012, an agricultural water supplier shall implement efficient water management practices pursuant to subdivisions (b) and (c).

(b) Agricultural water suppliers shall implement all of the following critical efficient management practices:

(1) Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 and to implement paragraph (2).

(2) Adopt a pricing structure for water customers based at least in part on quantity delivered.

(c) Agricultural water suppliers shall implement additional efficient management practices, including, but not limited to, practices to accomplish all of the following, if the measures are locally cost effective and technically feasible:

(1) Facilitate alternative land use for lands with exceptionally high water duties or whose irrigation contributes to significant problems, including drainage.

(2) Facilitate use of available recycled water that otherwise would not be used beneficially, meets all health and safety criteria, and does not harm crops or soils.

(3) Facilitate the financing of capital improvements for on-farm irrigation systems.

(4) Implement an incentive pricing structure that promotes one or more of the following goals:

(A) More efficient water use at the farm level.

(B) Conjunctive use of groundwater.

(C) Appropriate increase of groundwater recharge.

(D) Reduction in problem drainage.

(E) Improved management of environmental resources.

(F) Effective management of all water sources throughout the year by adjusting seasonal pricing structures based on current conditions.

(5) Expand line or pipe distribution systems, and construct regulatory reservoirs to increase distribution system flexibility and capacity, decrease maintenance, and reduce seepage.

(6) Increase flexibility in water ordering by, and delivery to, water customers within operational limits.

(7) Construct and operate supplier spill and tailwater recovery systems.

(8) Increase planned conjunctive use of surface water and groundwater within the supplier service area.

(9) Automate canal control structures.

(10) Facilitate or promote customer pump testing and evaluation.

(11) Designate a water conservation coordinator who will develop and implement the water management plan and prepare progress reports.

(12) Provide for the availability of water management services to water users. These services may include, but are not limited to, all of the following:

(A) On-farm irrigation and drainage system evaluations.

(B) Normal year and real-time irrigation scheduling and crop evapotranspiration information.

(C) Surface water, groundwater, and drainage water quantity and quality data.

(D) Agricultural water management educational programs and materials for farmers, staff, and the public.

(13) Evaluate the policies of agencies that provide the supplier with water to identify the potential for institutional changes to allow more flexible water deliveries and storage.

(14) Evaluate and improve the efficiencies of the supplier's pumps.

(d) Agricultural water suppliers shall include in the agricultural water management plans required pursuant to Part 2.8 (commencing with Section 10800) a report on which efficient water management practices have been implemented and are planned to be implemented, an estimate of the water use efficiency improvements that have occurred since the last report, and an estimate of the water use efficiency improvements estimated to occur five and 10 years in the future. If an agricultural water supplier determines that an efficient water management practice is not locally cost effective or technically feasible, the supplier shall submit information documenting that determination.

(e) The data shall be reported using a standardized form developed pursuant to Section 10608.52.

(f) An agricultural water supplier may meet the requirements of subdivisions (d) and (e) by submitting to the department a water conservation plan submitted to the United States Bureau of Reclamation that meets the requirements described in Section 10828.

(g) On or before December 31, 2013, December 31, 2016, and December 31, 2021, the department, in consultation with the board, shall submit to the Legislature a report on the agricultural efficient water management practices that have been implemented and are planned to be implemented and an assessment of the manner in which the implementation of those efficient water management practices has affected and will affect agricultural operations, including estimated water use efficiency improvements, if any.

(h) The department may update the efficient water management practices required pursuant to subdivision (c), in consultation with the Agricultural Water Management Council, the United States Bureau of Reclamation, and the board. All efficient water management practices for agricultural water use pursuant to this chapter shall be adopted or revised by the department only after the department conducts public hearings to allow participation of the diverse geographical areas and interests of the state.

(i) (1) The department shall adopt regulations that provide for a range of options that agricultural water suppliers may use or implement to comply with the measurement requirement in paragraph (1) of subdivision (b).

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

Chapter 5 Sustainable Water Management

Section 10608.50

10608.50.(a) The department, in consultation with the board, shall promote implementation of regional water resources management practices through increased incentives and removal of barriers consistent with state and federal law. Potential changes may include, but are not limited to, all of the following:

(1) Revisions to the requirements for urban and agricultural water management plans.

(2) Revisions to the requirements for integrated regional water management plans.

(3) Revisions to the eligibility for state water management grants and loans.

(4) Revisions to state or local permitting requirements that increase water supply opportunities, but do not weaken water quality protection under state and federal law.

(5) Increased funding for research, feasibility studies, and project construction.

(6) Expanding technical and educational support for local land use and water management agencies.

(b) No later than January 1, 2011, and updated as part of the California Water Plan, the department, in consultation with the board, and with public input, shall propose new statewide targets, or review and update existing statewide targets, for regional water resources management practices, including, but not limited to, recycled water, brackish groundwater desalination, and infiltration and direct use of urban stormwater runoff.

Chapter 6 Standardized Data Collection

SECTION 10608.52

10608.52.(a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.

(b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24 and an agricultural water supplier's compliance with implementation of efficient water management practices pursuant to subdivision (a) of Section 10608.48. The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.

Chapter 7 Funding Provisions

Section 10608.56-10608.60

10608.56.(a) On and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

(b) On and after July 1, 2013, an agricultural water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

(c) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for achieving the per capita reductions. The supplier may request grant or loan funds to achieve the per capita reductions to the extent the request is consistent with the eligibility requirements applicable to the water funds.

(d) Notwithstanding subdivision (b), the department shall determine that an agricultural water supplier is eligible for a water grant or loan even though the supplier is not implementing all of the efficient water management practices described in Section 10608.48, if the agricultural water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the efficient water management practices. The supplier may request grant or loan funds to implement the efficient water management practices to the extent the request is consistent with the eligibility requirements applicable to the water funds.

(e) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community.

(f) The department shall not deny eligibility to an urban retail water supplier or agricultural water supplier in compliance with the requirements of this part and Part 2.8 (commencing with Section 10800), that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the requirements of this part or Part 2.8 (commencing with Section 10800).

10608.60.(a) It is the intent of the Legislature that funds made available by Section 75026 of the Public Resources Code should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for grants to implement this part. In the allocation of funding, it is the intent of the Legislature that the department give consideration to disadvantaged communities to assist in implementing the requirements of this part.

(b) It is the intent of the Legislature that funds made available by Section 75041 of the Public Resources Code, should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for direct expenditures to implement this part.

Chapter 8 Quantifying Agricultural Water Use Efficiency

SECTION 10608.64

10608.64. The department, in consultation with the Agricultural Water Management Council, academic experts, and other stakeholders, shall develop a methodology for quantifying the efficiency of agricultural water use. Alternatives to be assessed shall include, but not be limited to, determination of efficiency levels based on crop type or irrigation system distribution uniformity. On or before December 31, 2011, the department shall report to the Legislature on a proposed methodology and a plan for implementation. The plan shall include the estimated implementation costs and the types of data needed to support the methodology. Nothing in this section authorizes the department to implement a methodology established pursuant to this section.

APPENDIX B

DOCUMENTATION OF UWMP REVIEW AND COORDINATION

DOCUMENTATION OF 60-DAY NOTICE TO CITIES AND COUNTIES WITHIN WHICH IWVWD PROVIDES WATER SERVICE, AND TO OTHER INTERESTED PARTIES

INDIAN WELLS VALLEY WATER DISTRICT

March 2, 2016

County of Kern Planning and Community Development Department
Lorelei H. Oviatt, AICP, Director
2700 "M" Street, Suite 100
Bakersfield, CA 93301-2370

Certified Mail: 70041350000502461228

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan
Notice Pursuant to Section 10621(b) of the California Water Code

Dear Ms. Oviatt:

The purpose of this letter is to provide notice that the Indian Wells Valley Water District (IWVWD) is revising its Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009.

The IWVWD will hold a public hearing to consider, and to receive public comments on its draft 2015 UWMP. The public hearing will be held a minimum of 60 days from the date of this letter at IWVWD's office located at 500 W. Ridgecrest Boulevard, Ridgecrest, CA 93556. A public notice stating the specific date, time, and location of the public hearing will be issued 30 days prior to said hearing. The IWVWD may adopt the 2015 UWMP following the public hearing.

All interested parties are invited to attend the public hearing and to comment on IWVWD's 2015 UWMP. Alternatively, interested parties may submit written comments to IWVWD. At least 30 days prior to the public hearing, a draft copy of IWVWD's 2015 Urban Water Management Plan will be made available at the office of Indian Wells Valley Water District, 500 W. Ridgecrest Boulevard, Ridgecrest, CA 93556.

Sincerely,

Don Zdeba
General Manager

500 West Ridgecrest Boulevard – Mailing Address: P.O. Box 1329, Ridgecrest, California 93556-1329
(760) 375-5086 Fax (760) 375-3969
www.iwvwd.com E-mail: iwvwd@iwvwd.com

INDIAN WELLS VALLEY WATER DISTRICT

March 2, 2016

Naval Air Weapons Station China Lake
CDR Brian Longbottom
429 E. Bowen Ave., Bldg. 981 MSA4001
China Lake, CA 93555-6100

Certified Mail: 70041350000502461235

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan
Notice Pursuant to Section 10621(b) of the California Water Code

Dear CDR Longbottom:

The purpose of this letter is to provide notice that the Indian Wells Valley Water District (IWVWD) is revising its Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009.

The IWVWD will hold a public hearing to consider, and to receive public comments on its draft 2015 UWMP. The public hearing will be held a minimum of 60 days from the date of this letter at IWVWD's office located at 500 W. Ridgecrest Boulevard, Ridgecrest, CA 93556. A public notice stating the specific date, time, and location of the public hearing will be issued 30 days prior to said hearing. The IWVWD may adopt the 2015 UWMP following the public hearing.

All interested parties are invited to attend the public hearing and to comment on IWVWD's 2015 UWMP. Alternatively, interested parties may submit written comments to IWVWD. At least 30 days prior to the public hearing, a draft copy of IWVWD's 2015 Urban Water Management Plan will be made available at the office of Indian Wells Valley Water District, 500 W. Ridgecrest Boulevard, Ridgecrest, CA 93556.

Sincerely,

Don Zdeba
General Manager

500 West Ridgecrest Boulevard – Mailing Address: P.O. Box 1329, Ridgecrest, California 93556-1329
(760) 375-5086 Fax (760) 375-3969
www.iwvwd.com E-mail: iwvwd@iwvwd.com

INDIAN WELLS VALLEY WATER DISTRICT

March 2, 2016

County of San Bernardino Planning Department
385 N. Arrowhead Avenue
San Bernardino, CA 92415

Certified Mail: 70041350000502461242

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan
Notice Pursuant to Section 10621(b) of the California Water Code

Dear Planning Department:

The purpose of this letter is to provide notice that the Indian Wells Valley Water District (IWVWD) is revising its Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009.

The IWVWD will hold a public hearing to consider, and to receive public comments on its draft 2015 UWMP. The public hearing will be held a minimum of 60 days from the date of this letter at IWVWD's office located at 500 W. Ridgecrest Boulevard, Ridgecrest, CA 93556. A public notice stating the specific date, time, and location of the public hearing will be issued 30 days prior to said hearing. The IWVWD may adopt the 2015 UWMP following the public hearing.

All interested parties are invited to attend the public hearing and to comment on IWVWD's 2015 UWMP. Alternatively, interested parties may submit written comments to IWVWD. At least 30 days prior to the public hearing, a draft copy of IWVWD's 2015 Urban Water Management Plan will be made available at the office of Indian Wells Valley Water District, 500 W. Ridgecrest Boulevard, Ridgecrest, CA 93556.

Sincerely,

Don Zdeba
General Manager

500 West Ridgecrest Boulevard – Mailing Address: P.O. Box 1329, Ridgecrest, California 93556-1329
(760) 375-5086 Fax (760) 375-3969
www.iwvwd.com E-mail: iwvwd@iwvwd.com

INDIAN WELLS VALLEY WATER DISTRICT

March 2, 2016

City of Ridgecrest
City Manager Dennis Speer
100 W. California
Ridgecrest, CA 93555

Certified Mail: 70041350000502461259

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan
Notice Pursuant to Section 10621(b) of the California Water Code

Dear City Manager Speer:

The purpose of this letter is to provide notice that the Indian Wells Valley Water District (IWVWD) is revising its Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009.

The IWVWD will hold a public hearing to consider, and to receive public comments on its draft 2015 UWMP. The public hearing will be held a minimum of 60 days from the date of this letter at IWVWD's office located at 500 W. Ridgecrest Boulevard, Ridgecrest, CA 93556. A public notice stating the specific date, time, and location of the public hearing will be issued 30 days prior to said hearing. The IWVWD may adopt the 2015 UWMP following the public hearing.

All interested parties are invited to attend the public hearing and to comment on IWVWD's 2015 UWMP. Alternatively, interested parties may submit written comments to IWVWD. At least 30 days prior to the public hearing, a draft copy of IWVWD's 2015 Urban Water Management Plan will be made available at the office of Indian Wells Valley Water District, 500 W. Ridgecrest Boulevard, Ridgecrest, CA 93556.

Sincerely,

Don Zdeba
General Manager

500 West Ridgecrest Boulevard – Mailing Address: P.O. Box 1329, Ridgecrest, California 93556-1329
(760) 375-5086 Fax (760) 375-3969
www.iwvwd.com E-mail: iwvwd@iwvwd.com

INDIAN WELLS VALLEY WATER DISTRICT

March 2, 2016

Inyokern CSD
General Manager Brian Bebee
P.O. Box 1418
Inyokern, CA 93527

Certified Mail: 70041350000502461358

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan
Notice Pursuant to Section 10621(b) of the California Water Code

Dear General Manager Bebee:

The purpose of this letter is to provide notice that the Indian Wells Valley Water District (IWVWD) is revising its Urban Water Management Plan (UWMP) in compliance with the Urban Water Management Planning Act and the Water Conservation Act of 2009.

The IWVWD will hold a public hearing to consider, and to receive public comments on its draft 2015 UWMP. The public hearing will be held a minimum of 60 days from the date of this letter at IWVWD's office located at 500 W. Ridgecrest Boulevard, Ridgecrest, CA 93556. A public notice stating the specific date, time, and location of the public hearing will be issued 30 days prior to said hearing. The IWVWD may adopt the 2015 UWMP following the public hearing.

All interested parties are invited to attend the public hearing and to comment on IWVWD's 2015 UWMP. Alternatively, interested parties may submit written comments to IWVWD. At least 30 days prior to the public hearing, a draft copy of IWVWD's 2015 Urban Water Management Plan will be made available at the office of Indian Wells Valley Water District, 500 W. Ridgecrest Boulevard, Ridgecrest, CA 93556.

Sincerely,

Don Zdeba
General Manager

500 West Ridgecrest Boulevard – Mailing Address: P.O. Box 1329, Ridgecrest, California 93556-1329
(760) 375-5086 Fax (760) 375-3969
www.iwvwd.com E-mail: iwvwd@iwvwd.com

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Naval Air Weapons Station China Lake
CDR Brian Longbottom
429 E. Bowen Ave., Bldg. 981 MSA4001
China Lake, CA 93555-6100

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) [illegible] C. Date of Delivery 3/4/16

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7004 1350 0005 0246 1235

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Kern Cty Planning & Community Development Dept
Lorelei H. Oviatt, AICP, Director
2700 "M" Street, Suite 100
Bakersfield, CA 93301-2370

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) [illegible] C. Date of Delivery 3-4

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7004 1350 0005 0246 1228

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-154

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

City of Ridgecrest
City Manager Dennis Speer
100 W. California
Ridgecrest, CA 93555

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery 3-4-16

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7004 1350 0005 0246 1259

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

County of San Bernardino Planning Department
385 N. Arrowhead Avenue
San Bernardino, CA 92415

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery MAR 04 2016

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

92415-0187

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7004 1350 0005 0246 1242

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-154

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Inyokern CSD
General Manager Brian Bebee
P.O. Box 1418
Inyokern, CA 93527

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☒ Agent ☐ Addressee

B. Received by (*Printed Name*) BRIAN U BEBEE
C. Date of Delivery 3-7-16

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (*Extra Fee*) ☐ Yes

2. Article Number
(*Transfer from service label*) 7004 1350 0005 0246 1358

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

PUBLIC HEARING NOTICES

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF KERN

Public Hearing

Case Number _____

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

State of California, County of Kern, ss:

Declarant says:

That at all times, herein mentioned declarant is and was a citizen of the United States, over the age of twenty-one years, and not a party to nor interested in the within matter; that declarant is the principal clerk of the printer and the publisher of THE DAILY INDEPENDENT, a newspaper of general circulation printed and published daily in the City of Ridgecrest, Indian Wells Judicial District, County of Kern, State of California, which newspaper has been adjudged a newspaper of general circulation by the said Superior Court by order made and renewed July 8, 1952, in Civil Proceeding No. 58584 of said Court: that the instrument of which the annexed in a printed copy has been published in each regular and like issue of said newspaper (and not any supplement thereof) on the following dates, to-wit:

5-25-16
6-1-16

I declare under penalty of perjury that the foregoing is true and correct.

EXECUTED ON June 1, 2016, at Ridgecrest California.

Declarant _____

Notice of Public Hearing

Indian Wells Valley Water District 2015 Urban Water Management Plan

Pursuant to Section 6066 of the Government Code and Section 10642 of the Water Code, NOTICE IS HEREBY GIVEN that the Indian Wells Valley Water District (District) will hold a public hearing as an opportunity to provide input on the District's Draft 2015 Urban Water Management Plan (Plan). The Draft Plan prepared by Krieger & Stewart is available for inspection online at www.iwvwd.com/publicdocuments/publicreports/ and at the Indian Wells Valley Water District Office, 500 W. Ridgecrest Blvd., Ridgecrest, California.

Public comments on the Plan must be submitted to Indian Wells Valley Water District, 500 W. Ridgecrest Blvd., Ridgecrest, California 93555, Attn: Rose Koch by June 13, 2016. The public hearing on the Plan and consideration for adoption will be held on Monday, June 13, 2016 at 6:00 pm, or soon thereafter as the matter may be heard, in the Board Room, Indian Wells Valley Water District, 500 W. Ridgecrest Blvd., Ridgecrest, California, at which time and place all interested persons shall have the opportunity to present their concerns to the Board of Directors. The District may proceed to adopt the Plan after completion of the public hearing.

(05/25, 06/01/2016)

The Daily Independent
May 25, 16

PUBLIC NOTICE

If you need to publish a legal notice in the paper please contact our Legal Dept. at (760)375-4481, x105 or email at mclaunch@ridgecrestca.com

Notice of Public Hearing

Indian Wells Valley Water District 2015 Urban Water Management Plan

Pursuant to Section 6066 of the Government Code and Section 10642 of the Water Code, NOTICE IS HEREBY GIVEN that the Indian Wells Valley Water District (District) will hold a public hearing as an opportunity to provide input on the District's Draft 2015 Urban Water Management Plan (Plan). The Draft Plan prepared by Krieger & Stewart is available for inspection online at www.iwvwd.com/publicdocuments/publicreports/ and at the Indian Wells Valley Water District Office, 500 W. Ridgecrest Blvd., Ridgecrest, California.

Public comments on the Plan must be submitted to Indian Wells Valley Water District, 500 W. Ridgecrest Blvd., Ridgecrest, California 93555, Attn: Rose Koch by June 13, 2016. The public hearing on the Plan and consideration for adoption will be held on Monday, June 13, 2016 at 6:00 pm, or soon thereafter as the matter may be heard, in the Board Room, Indian Wells Valley Water District, 500 W. Ridgecrest Blvd., Ridgecrest, California, at which time and place all interested persons shall have the opportunity to present their concerns to the Board of Directors. The District may proceed to adopt the Plan after completion of the public hearing.

(05/25; 06/01/2016)

INDIAN WELLS VALLEY WATER DISTRICT

May 2, 2016

County of Kern Planning and Community Development Department
Lorelei H. Oviatt, AICP, Director
2700 "M" Street, Suite 100
Bakersfield, CA 93301-2370

Certified Mail: 70041350000502461365

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan
Notice of Public Hearing and Document Availability

Dear Ms. Oviatt:

The purpose of this letter is to provide notice that Indian Wells Valley Water District's Draft 2015 Urban Water Management Plan (Draft 2015 UWMP) is available for review, and a public hearing has been scheduled to consider, and to receive public comments on, said UWMP.

The Draft 2015 UWMP is available for review at the following locations:

- Online at: www.iwvwd.com/public-documents/public-reports
- In person at: Indian Wells Valley Water District
  500 West Ridgecrest Boulevard
  Ridgecrest, CA 93556-1329

Indian Wells Valley Water District (the District) has scheduled a public hearing for **June 13, 2016 at 6:00 p.m.** to consider, and to receive public comments on, the Draft 2015 UWMP. The public hearing will be held at the District's office located at **500 West Ridgecrest Boulevard, Ridgecrest CA 96556-1329**. Comments may also be submitted in writing and mailed to the District's office for receipt by the District prior to June 13, 2016. Following the public hearing, the District may proceed to adopt the 2015 UWMP.

Sincerely,

Don Zdeba
General Manager

INDIAN WELLS VALLEY WATER DISTRICT

Donald M. Zdeba
General Manager
Krieger & Stewart, Incorporated
Engineers
McMurtrey, Hartsock & Worth
Attorneys-at-Law

May 2, 2016

Naval Air Weapons Station China Lake
CDR Brian Longbottom
429 E. Bowen Ave., Bldg. 981 MSA4001
China Lake, CA 93555-6100

Certified Mail: 70041350000502461372

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan
Notice of Public Hearing and Document Availability

Dear CDR Longbottom:

The purpose of this letter is to provide notice that Indian Wells Valley Water District's Draft 2015 Urban Water Management Plan (Draft 2015 UWMP) is available for review, and a public hearing has been scheduled to consider, and to receive public comments on, said UWMP.

The Draft 2015 UWMP is available for review at the following locations:

- Online at: www.iwvwd.com/public-documents/public-reports
- In person at: Indian Wells Valley Water District
  500 West Ridgecrest Boulevard
  Ridgecrest, CA 93556-1329

Indian Wells Valley Water District (the District) has scheduled a public hearing for **June 13, 2016 at 6:00 p.m.** to consider, and to receive public comments on, the Draft 2015 UWMP. The public hearing will be held at the District's office located at **500 West Ridgecrest Boulevard, Ridgecrest CA 96556-1329**. Comments may also be submitted in writing and mailed to the District's office for receipt by the District prior to June 13, 2016. Following the public hearing, the District may proceed to adopt the 2015 UWMP.

Sincerely,

Don Zdeba
General Manager

INDIAN WELLS VALLEY WATER DISTRICT

May 2, 2016

County of San Bernardino Planning Department
385 N. Arrowhead Avenue
San Bernardino, CA 92415

Certified Mail: 70041350000502461389

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan
Notice of Public Hearing and Document Availability

Dear Planning Department:

The purpose of this letter is to provide notice that Indian Wells Valley Water District's Draft 2015 Urban Water Management Plan (Draft 2015 UWMP) is available for review, and a public hearing has been scheduled to consider, and to receive public comments on, said UWMP.

The Draft 2015 UWMP is available for review at the following locations:

- Online at: www.iwvwd.com/public-documents/public-reports
- In person at: Indian Wells Valley Water District
  500 West Ridgecrest Boulevard
  Ridgecrest, CA 93556-1329

Indian Wells Valley Water District (the District) has scheduled a public hearing for **June 13, 2016 at 6:00 p.m.** to consider, and to receive public comments on, the Draft 2015 UWMP. The public hearing will be held at the District's office located at **500 West Ridgecrest Boulevard, Ridgecrest CA 96556-1329**. Comments may also be submitted in writing and mailed to the District's office for receipt by the District prior to June 13, 2016. Following the public hearing, the District may proceed to adopt the 2015 UWMP.

Sincerely,

Don Zdeba
General Manager

INDIAN WELLS VALLEY WATER DISTRICT

May 2, 2016

City of Ridgecrest
City Manager Dennis Speer
100 W. California
Ridgecrest, CA 93555

Certified Mail: 70041350000502461396

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan
Notice of Public Hearing and Document Availability

Dear City Manager Speer:

The purpose of this letter is to provide notice that Indian Wells Valley Water District's Draft 2015 Urban Water Management Plan (Draft 2015 UWMP) is available for review, and a public hearing has been scheduled to consider, and to receive public comments on, said UWMP.

The Draft 2015 UWMP is available for review at the following locations:

- Online at: www.iwvwd.com/public-documents/public-reports
- In person at: Indian Wells Valley Water District
  500 West Ridgecrest Boulevard
  Ridgecrest, CA 93556-1329

Indian Wells Valley Water District (the District) has scheduled a public hearing for **June 13, 2016 at 6:00 p.m.** to consider, and to receive public comments on, the Draft 2015 UWMP. The public hearing will be held at the District's office located at **500 West Ridgecrest Boulevard, Ridgecrest CA 96556-1329**. Comments may also be submitted in writing and mailed to the District's office for receipt by the District prior to June 13, 2016. Following the public hearing, the District may proceed to adopt the 2015 UWMP.

Sincerely,

Don Zdeba
General Manager

INDIAN WELLS VALLEY WATER DISTRICT

May 2, 2016

Inyokern CSD
General Manager Brian Bebee
P.O. Box 1418
Inyokern, CA 93527

Certified Mail: 70041350000502461402

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan
Notice of Public Hearing and Document Availability

Dear General Manager Bebee:

The purpose of this letter is to provide notice that Indian Wells Valley Water District's Draft 2015 Urban Water Management Plan (Draft 2015 UWMP) is available for review, and a public hearing has been scheduled to consider, and to receive public comments on, said UWMP.

The Draft 2015 UWMP is available for review at the following locations:

- Online at: www.iwvwd.com/public-documents/public-reports
- In person at: Indian Wells Valley Water District
  500 West Ridgecrest Boulevard
  Ridgecrest, CA 93556-1329

Indian Wells Valley Water District (the District) has scheduled a public hearing for **June 13, 2016 at 6:00 p.m.** to consider, and to receive public comments on, the Draft 2015 UWMP. The public hearing will be held at the District's office located at **500 West Ridgecrest Boulevard, Ridgecrest CA 96556-1329**. Comments may also be submitted in writing and mailed to the District's office for receipt by the District prior to June 13, 2016. Following the public hearing, the District may proceed to adopt the 2015 UWMP.

Sincerely,

Don Zdeba
General Manager

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

County of San Bernardino Planning Department
385 N. Arrowhead Avenue
San Bernardino, CA 92415

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) | C. Date of Delivery
MAY 06 2016

D. Is delivery address different from item 1? ☒ Yes
If YES, enter delivery address below: ☐ No

92415-0187

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7004 1350 0005 0246 1389

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

City of Ridgecrest
City Manager Dennis Speer
100 W. California
Ridgecrest, CA 93555

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Mary Sandstrom ☐ Agent ☐ Addressee

B. Received by (Printed Name) | C. Date of Delivery
5-6-16

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7004 1350 0005 0246 1396

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Inyokern CSD
General Manager Brian Bebee
P.O. Box 1418
Inyokern, CA 93527

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☑ Agent ☐ Addressee

B. Received by (Printed Name) BRIAN K BEBEE | C. Date of Delivery
5-12-16

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7004 1350 0005 0246 1402

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Kern Cty Planning & Community Development Dept
Lorelei H. Oviatt, AICP, Director
2700 "M" Street, Suite 100
Bakersfield, CA 93301-2370

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) | C. Date of Delivery
5/6

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7004 1350 0005 0246 1365

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Naval Air Weapons Station China Lake
CDR Brian Longbottom
429 E. Bowen Ave., Bldg. 981 MSA4001
China Lake, CA 93555-6100

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X
☑ Agent
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery
5/9/16

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

FLEDGREST CA 93555
MAY 09 2016

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
(Transfer from service label) 7004 1350 0005 0246 1372

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

APPENDIX C

RESOLUTION ADOPTING THE 2015 URBAN WATER MANAGEMENT PLAN

RESOLUTION NO.16-05

RESOLUTION OF THE BOARD OF DIRECTORS OF THE INDIAN WELLS VALLEY WATER DISTRICT, KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA, ADOPTING THE 2015 URBAN WATER MANAGEMENT PLAN

WHEREAS the California Legislature enacted Assembly Bill 797 (Water Code Section 10610 et seq., known as the Urban Water Management Planning Act) during the 1983-1984 Regular Session, and as amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan, the primary objective of which is to plan for the conservation and efficient use of water; and

WHEREAS the District is an urban supplier of water providing water to a population over 33,000 and

WHEREAS the Plan shall be periodically reviewed at least once every five years, and that the District shall make any amendments or changes to its plan which are indicated by the review; and

WHEREAS the Plan must be adopted by the Board of Directors, after public review and hearing, and filed with the California Department of Water Resources within thirty days of adoption; and

WHEREAS, District staff has, therefore, prepared and made available to the public for inspection a proposed Urban Water Management Plan dated April 2016, in compliance with the requirements contained in Part 2.6 of Division 6 of the Water Code of the State of California; and

WHEREAS, the aforesaid plan is entitled "Indian Wells Valley Water District 2015 Urban Water Management Plan";

WHEREAS, this Board of Directors duly called and noticed a public hearing on the aforesaid plan to be held on June 13, 2016, at the hour of 6:00 PM; and

WHEREAS, a Notice of Hearing was duly published pursuant to Section 6066 of the Government Code of the State of California; and

WHEREAS, the aforesaid hearing called by the Board of Directors has been duly held and concluded; and

NOW, THEREFORE, BE IT RESOLVED AND ORDERED by this Board of Directors, as follows:

Section 1. That all the foregoing is true and correct.

Section 2. That the aforesaid Indian Wells Valley Water District 2015 Urban Water Management Plan is hereby adopted.

All the foregoing being on the motion of Director Corlett, seconded by Vice-President Brown, and authorized by the following vote, namely:

AYES:	Director Cordell Director Corlett Vice-President Brown President Cortichiato
NOES:	Director Griffin
ABSENT:	None
ABSTAIN:	None

I HEREBY CERTIFY that the foregoing resolution is the resolution of Indian Wells Valley Water District as duly passed and adopted by said Board of Directors at a legally convened meeting held on the 13th day of June, 2016.

WITNESS my hand and the official seal of said Board of Directors this 13th day of June, 2016.

Don Cortichiato
President, Board of Directors
INDIAN WELLS VALLEY WATER DISTRICT

Donald M. Zdeba
Secretary, Board of Directors
INDIAN WELLS VALLEY WATER DISTRICT

(SEAL)

APPENDIX D

DOCUMENTATION OF FINAL UWMP SUBMITTAL

DOCUMENTATION OF FINAL 2015 UWMP SUBMITTAL TO CITIES AND COUNTIES WITHIN WHICH IWVWD PROVIDES WATER SERVICE AND OTHER INTERESTED PARTIES

KRIEGER & STEWART
Engineering Consultants

June 17, 2016 178-64.5

Nancy Gooch
Eastern Kern Resource Conservation District
300 South Richmond Road
Ridgecrest, CA 93555

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan

Dear Ms. Gooch:

Indian Wells Valley Water District (the District) held a public hearing on June 13, 2016 to consider, and to receive public comments on, its Draft 2015 Urban Water Management Plan (UWMP). Following the public hearing, the District's Board of Directors adopted the UWMP.

On behalf of the District, we submit to you a copy of the District's Final 2015 UWMP in PDF on the enclosed compact disc. Additionally, the District's Final 2015 UWMP is available for review at the following locations:

- Online at: www.iwvwd.com/public-documents/public-reports
- In person at: Indian Wells Valley Water District
  500 West Ridgecrest Boulevard
  Ridgecrest, CA 93556-1329

Sincerely,

KRIEGER & STEWART

David F. Scriven

VEM/lge
178-64P5-Final Sbmtl Ltr-EKRCD

Enclosure: PDF of Final 2015 UWMP on Compact Disc

3602 University Avenue, Riverside, California 92501-3331
Tel: (951) 684-6900 • Fax: (951) 684-6986 • www.kriegerandstewart.com

KRIEGER & STEWART
Engineering Consultants

June 17, 2016 178-64.5

General Manager Brian Bebee
Inyokern CSD
1429 Broadway Avenue
Inyokern, CA 93527

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan

Dear General Manager Bebee:

Indian Wells Valley Water District (the District) held a public hearing on June 13, 2016 to consider, and to receive public comments on, its Draft 2015 Urban Water Management Plan (UWMP). Following the public hearing, the District's Board of Directors adopted the UWMP.

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- In person at: Indian Wells Valley Water District
  500 West Ridgecrest Boulevard
  Ridgecrest, CA 93556-1329

Sincerely,

KRIEGER & STEWART

David F. Scriven

VEM/lge
178-64P5-Final Sbmtl Ltr-Inyokern CSD

Enclosure: PDF of Final 2015 UWMP on Compact Disc

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Tel: (951) 684-6900 • Fax: (951) 684-6986 • www.kriegerandstewart.com

KRIEGER & STEWART
Engineering Consultants

June 17, 2016 178-64.5

Attn: Planning Department
County of San Bernardino Planning Department
385 N. Arrowhead Avenue
San Bernardino, CA 92415

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan

Dear Planning Department:

Indian Wells Valley Water District (the District) held a public hearing on June 13, 2016 to consider, and to receive public comments on, its Draft 2015 Urban Water Management Plan (UWMP). Following the public hearing, the District's Board of Directors adopted the UWMP.

On behalf of the District, we submit to you a copy of the District's Final 2015 UWMP in PDF on the enclosed compact disc. Additionally, the District's Final 2015 UWMP is available for review at the following locations:

- Online at: www.iwvwd.com/public-documents/public-reports
- In person at: Indian Wells Valley Water District
  500 West Ridgecrest Boulevard
  Ridgecrest, CA 93556-1329

Sincerely,

KRIEGER & STEWART

David F. Scriven

VEM/lge
178-64P5-Final Sbmtl Ltr-SB Cnty

Enclosure: PDF of Final 2015 UWMP on Compact Disc

3602 University Avenue, Riverside, California 92501-3331
Tel: (951) 684-6900 • Fax: (951) 684-6986 • www.kriegerandstewart.com

KRIEGER & STEWART
Engineering Consultants

June 17, 2016 178-64.5

City Manager Dennis Speer
City of Ridgecrest
100 W. California
Ridgecrest, CA 93555

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan

Dear City Manager Speer:

Indian Wells Valley Water District (the District) held a public hearing on June 13, 2016 to consider, and to receive public comments on, its Draft 2015 Urban Water Management Plan (UWMP). Following the public hearing, the District's Board of Directors adopted the UWMP.

On behalf of the District, we submit to you a copy of the District's Final 2015 UWMP in PDF on the enclosed compact disc. Additionally, the District's Final 2015 UWMP is available for review at the following locations:

- Online at: www.iwvwd.com/public-documents/public-reports
- In person at: Indian Wells Valley Water District
  500 West Ridgecrest Boulevard
  Ridgecrest, CA 93556-1329

Sincerely,

KRIEGER & STEWART

David F. Scriven

VEM/lge
178-64P5-Final Sbmtl Ltr-City of Ridgecrest

Enclosure: PDF of Final 2015 UWMP on Compact Disc

3602 University Avenue, Riverside, California 92501-3331
Tel: (951) 684-6900 • Fax: (951) 684-6986 • www.kriegerandstewart.com

KRIEGER & STEWART
Engineering Consultants

June 17, 2016 178-64.5

CDR Brian Longbottom
Naval Air Weapons Station China Lake
429 E. Bowen Ave., Bldg. 981 MSA4001
China Lake, CA 93555-6100

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan

Dear CDR Longbottom:

Indian Wells Valley Water District (the District) held a public hearing on June 13, 2016 to consider, and to receive public comments on, its Draft 2015 Urban Water Management Plan (UWMP). Following the public hearing, the District's Board of Directors adopted the UWMP.

On behalf of the District, we submit to you a copy of the District's Final 2015 UWMP in PDF on the enclosed compact disc. Additionally, the District's Final 2015 UWMP is available for review at the following locations:

- Online at: www.iwvwd.com/public-documents/public-reports
- In person at: Indian Wells Valley Water District
  500 West Ridgecrest Boulevard
  Ridgecrest, CA 93556-1329

Sincerely,

KRIEGER & STEWART

David F. Scriven

VEM/lge
178-64P5-Final Sbmtl Ltr-NAWSCL

Enclosure: PDF of Final 2015 UWMP on Compact Disc

3602 University Avenue, Riverside, California 92501-3331
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KRIEGER & STEWART
Engineering Consultants

June 17, 2016 178-64.5

Lorelei H. Oviatt, AICP, Director
County of Kern Planning and Community Development Department
2700 "M" Street, Suite 100
Bakersfield, CA 93301-2370

Subject: Indian Wells Valley Water District's 2015 Urban Water Management Plan

Dear Ms. Oviatt:

Indian Wells Valley Water District (the District) held a public hearing on June 13, 2016 to consider, and to receive public comments on, its Draft 2015 Urban Water Management Plan (UWMP). Following the public hearing, the District's Board of Directors adopted the UWMP.

On behalf of the District, we submit to you a copy of the District's Final 2015 UWMP in PDF on the enclosed compact disc. Additionally, the District's Final 2015 UWMP is available for review at the following locations:

- Online at: www.iwvwd.com/public-documents/public-reports
- In person at: Indian Wells Valley Water District
  500 West Ridgecrest Boulevard
  Ridgecrest, CA 93556-1329

Sincerely,

KRIEGER & STEWART

David F. Scriven

VEM/lge
178-64P5-Final Sbmtl Ltr-Kern Cnty

Enclosure: PDF of Final 2015 UWMP on Compact Disc

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Shipping Information

To:
INYOKERN COMMUNITY SVCS DISTRICT
BRIAN BEBEE
1429 BROADWAY AVE
INYOKERN, CA, 93527, US

Service
UPS Ground

IWVWD 2015 UWMP 1Z9444E90398610857

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A UPS shipping label has been created. Once the shipment arrives at our facility, the tracking status--including the scheduled delivery date--will be updated.

Label Created On:
06/17/2016

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Shipping Information

To:
SAN BERNARDINO COUNTY
385 NORTH ARROWHEAD AVE
PLANNING DEPARTMENT
SAN BERNARDINO, CA, 924150103, US

Service
UPS Ground

IWVWD 2015 UWMP 1Z9444E90397882913

Change Description

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A UPS shipping label has been created. Once the shipment arrives at our facility, the tracking status--including the scheduled delivery date--will be updated.

Shipping Information

To:
EASTERN KERN RESOURCE CONSERVATION
NANCY GOOCH
300 S. RICHMOND ROAD
RIDGECREST, CA, 935554436, US

Label Created On:
06/17/2016

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Service

UPS Ground

IWVWD 2015 UWMP 1Z9444E90397302861 Change Description

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Shipping Information

To:
CITY OF RIDGECREST
CITY MANAGER DENNIS SPEER
100 W. CALIFORNIA
RIDGECREST, CA, 935554054, US

Service

UPS Ground

IWVWD 2015 UWMP 1Z9444E90397126847 Change Description

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To:
NAVAL AIR WEAPONS STATION CHINA LAK
CDR BRIAN LONGBOTTOM
429 E. BOWEN AVENUE
BLDG 981
MSA4001
CHINA LAKE, CA, 935556108, US

Service

UPS Ground

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To:
KERN COUNTY
LORELEI OVIATT
2700 M STREET
STE 100
COMMUNITY PLANNING & DEV DEPT.
BAKERSFIELD, CA, 933012370, US

Service

UPS Ground

Tracking results provided by UPS: 06/17/2016 5:37 P.M. Eastern Time

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KRIEGER & STEWART, INCORPORATED
Engineering Consultants
3602 University Avenue
RIVERSIDE, CA 92501
(951) 684-6900

LETTER OF TRANSMITTAL

DATE	JOB NO.
June 17, 2016	178-64.5

ATTENTION: Coordinator, Urban Water Management Plans

RE: Indian Wells Valley Water District
2015 Urban Water Management Plan

TO: California State Library
Government Publications Section

914 Capitol Mall

Sacramento, CA 95814

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REMARKS:

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SIGNED: Victoria E. Morrell/lge

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Label Created On:
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Additional Information

Reference Number(s):	178-64.5
Shipment Category:	Package
Shipped/Billed On:	06/17/2016
Weight:	1.00 lb

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914 CAPITOL MALL
URBAN WATER MANAGEMENT PLANS
SACRAMENTO, CA, 958144814, US

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DOCUMENTATION OF FINAL UWMP SUBMITTAL TO DWR

PLACEHOLDER FOR

DOCUMENTATION OF FINAL UWMP SUBMITTAL TO DWR

APPENDIX E

2015 UWMP CHECKLIST

Checklist Arranged by Water Code Section

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
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	Section 3.B.
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	Section 3
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	Section 3.C.
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	Section 3.D. and Appendix G
10608.24(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	Not Applicable
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	Appendix B
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	Not Applicable
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	Appendix G
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	Section 1.B.
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	Section 1.B.

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	Section 1.D.
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	Section 1.B.
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	Section 1.C.
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	Section 2
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	Section 2.D.
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	Section 2.C.
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	Section 2.C.
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	Section 2.E.
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	Section 5.C.
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	Section 5.C.
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	Section 5.B. and Appendix J
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1	Section 5.B.1.
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	Section 5.B.1.
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	Section 5.B.

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	Section 5.C.
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	Section 5.C.
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1	Section 6.A.
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	Section 6.A.
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	Section 6.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	Section 5.D.
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	Section 4.A.
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Section 4.3	Section 4.D.
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	Section 7 and Appendix N
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	Not Applicable
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	Section 6.A.
10631(h)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	Section 5.F.
10631(i)	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	Section 7

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	Not Applicable
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	Not Applicable
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	Sections 3.A. and 3.B.
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	Section 6.B.
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	Table 16
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	Section 6.B.
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	Section 6.B.
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	Section 6.B.
10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	Section 6.B.
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	Section 6.B.
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	Appendix M
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	Section 6.B.
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	Section 5.G.

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	Section 5.G.
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	Section 5.G.
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	Section 5.G.
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	Section 5.G.
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	Section 5.G.
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	Section 5.G.
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	Section 5.G.
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	Section 6.C.
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	Section 6.A.
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	Table 1 and Appendix B
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	Section 1.B.

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	Appendix B and Appendix C
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	Appendix B
10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	Appendix C
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	Appendix D
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	Appendix D
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	Appendix D
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	Section 1.C.

APPENDIX F

2015 UWMP STANDARDIZED TABLES

Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
1510017	Indian Wells Valley Water District	11,677	6,145
	TOTAL	11,677	6,145
NOTES:			

Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable* *drop down list*
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES:			

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
☐	Agency is a wholesaler
☑	Agency is a retailer
Fiscal or Calendar Year (select one)	
☑	UWMP Tables Are in Calendar Years
☐	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)	
Units of Measure Used in UWMP (select from Drop down)	
Unit	
NOTES:	

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name *(Add additional rows as needed)*
NOTES: IWVWD does not receive wholesale water.

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040*(opt)*
	33,476	35,569	36,453	37,359	38,266	40,277
NOTES:						

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type *(Add additional rows as needed)*	2015 Actual		
Drop down list *May select each use multiple times* *These are the only Use Types that will be recognized by the WUEdata online submittal tool*	Additional Description *(as needed)*	Level of Treatment When Delivered *Drop down list*	Volume
Single Family		Drinking Water	4,440
Multi-Family		Drinking Water	547
Commercial	Includes Indust./Inst./Gov.	Drinking Water	877
		TOTAL	5,864
NOTES:			

Table 4-2 Retail: Demands for Potable and Raw Water - Projected						
Use Type *(Add additional rows as needed)* ***Drop down list*** *May select each use multiple times* *These are the only Use Types that will be recognized by the WUEdata online submittal tool*	Additional Description *(as needed)*	Projected Water Use *Report To the Extent that Records are Available*				
		2020	2025	2030	2035	2040-opt
Single Family		6,060	6,211	6,366	6,520	6,863
Multi-Family		718	735	754	772	813
Commercial	Includes Indust/Inst/Gov	1,196	1,226	1,256	1,287	1,354
Losses		273	273	273	273	273
Other	Well Maintenance	8	8	8	8	8
TOTAL		8,255	8,453	8,657	8,860	9,311
NOTES:						

Table 4-3 Retail: Total Water Demands						
	2015	2020	2025	2030	2035	2040 *(opt)*
Potable and Raw Water *From Tables 4-1 and 4-2*	5,864	8,255	8,453	8,657	8,860	9,311
Recycled Water Demand* *From Table 6-4*	0	0	0	0	0	0
TOTAL WATER DEMAND	5,864	8,255	8,453	8,657	8,860	9,311
**Recycled water demand fields will be blank until Table 6-4 is complete.*						
NOTES:						

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
01/2015	273
** Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.*	
NOTES:	

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc… utilized in demand projections are found.	
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	Yes
NOTES:	

Table 5-1 Baselines and Targets Summary

Retail Agency or Regional Alliance Only

Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*1998*	*2007*	*264*	*239*	*214*
5 Year	*2005*	*2009*	*256*		

*All values are in Gallons per Capita per Day (GPCD)

NOTES:

Table 5-2: 2015 Compliance

Retail Agency or Regional Alliance Only

Actual 2015 GPCD*	2015 Interim Target GPCD*	**Optional Adjustments to 2015 GPCD** *From Methodology 8*					2015 GPCD* *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events*	Economic Adjustment*	Weather Normalization*	TOTAL Adjustments*	Adjusted 2015 GPCD*		
189	239				0	189	189	Yes

**All values are in Gallons per Capita per Day (GPCD)*

NOTES:

Table 6-1 Retail: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2011	2012	2013	2014	2015
Add additional rows as needed						
Alluvial Basin	Indian Wells Valley GW Basin	7391	7652	7546	7327	7077
	TOTAL	7,391	7,652	7,546	7,327	7,077
NOTES:						

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
	Percentage of 2015 service area covered by wastewater collection system *(optional)*					
	Percentage of 2015 service area population covered by wastewater collection system *(optional)*					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
Add additional rows as needed						
City of Ridgecrest	Metered	3,115	City of Ridgecrest	Ridgecrest WWTP	No	
Total Wastewater Collected from Service Area in 2015:		3,115				
NOTES:						

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015

☑	No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)*	Method of Disposal *Drop down list*	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level *Drop down list*	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
Add additional rows as needed										
						Total	0	0	0	0

NOTES:

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area

☑	Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.

Name of Agency Producing (Treating) the Recycled Water:	
Name of Agency Operating the Recycled Water Distribution System:	
Supplemental Water Added in 2015	
Source of 2015 Supplemental Water	

Beneficial Use Type	General Description of 2015 Uses	Level of Treatment *Drop down list*	2015	2020	2025	2030	2035	2040 (opt)
Agricultural irrigation								
Landscape irrigation (excludes golf courses)								
Golf course irrigation								
Commercial use								
Industrial use								
Geothermal and other energy production								
Seawater intrusion barrier								
Recreational impoundment								
Wetlands or wildlife habitat								
Groundwater recharge (IPR)*								
Surface water augmentation (IPR)*								
Direct potable reuse								
Other *(Provide General Description)*								
		Total:	0	0	0	0	0	0

**IPR - Indirect Potable Reuse*

NOTES:

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual			
☑	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.		
Use Type		**2010 Projection for 2015**	**2015 Actual Use**
Agricultural irrigation			
Landscape irrigation (excludes golf courses)			
Golf course irrigation			
Commercial use			
Industrial use			
Geothermal and other energy production			
Seawater intrusion barrier			
Recreational impoundment			
Wetlands or wildlife habitat			
Groundwater recharge (IPR)			
Surface water augmentation (IPR)			
Direct potable reuse			
Other	*Type of Use*		
Total		0	0
NOTES:			

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☑	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Add additional rows as needed			
		Total	0
NOTES:			

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☑	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Agency *This may be a range*
	Drop Down List (y/n)	*If Yes, Agency Name*				
Add additional rows as needed						
NOTES:						

Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2015		
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		Actual Volume	Water Quality *Drop Down List*	Total Right or Safe Yield *(optional)*
Add additional rows as needed				
Groundwater		7,077	Drinking Water	
	Total	7,077		0
NOTES:				

Table 6-9 Retail: Water Supplies — Projected											
Water Supply	Additional Detail on Water Supply	Projected Water Supply *Report To the Extent Practicable*									
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		**2020**		**2025**		**2030**		**2035**		**2040** *(opt)*	
		Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*
Add additional rows as needed											
Groundwater		20,000		20,000		20,000		20,000		20,000	
Total		20,000	0	20,000	0	20,000	0	20,000	0	20,000	0
NOTES:											

Table 7-1 Retail: Basis of Water Year Data			
Year Type	**Base Year** *If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 1999-2000, use 2000*	**Available Supplies if Year Type Repeats**	
		☐ Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____	
		☐ Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available	**% of Average Supply**
Average Year	2003	20000	100%
Single-Dry Year	1924	20000	100%
Multiple-Dry Years 1st Year	2013	20000	100%
Multiple-Dry Years 2nd Year	2014	20000	100%
Multiple-Dry Years 3rd Year	2015	20000	100%
Multiple-Dry Years 4th Year *Optional*			
Multiple-Dry Years 5th Year *Optional*			
Multiple-Dry Years 6th Year *Optional*			

Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.

NOTES:

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 *(Opt)*
Supply totals *(autofill from Table 6-9)*	20,000	20,000	20,000	20,000	20,000
Demand totals *(autofill from Table 4-3)*	8,255	8,453	8,657	8,860	9,311
Difference	11,745	11,547	11,343	11,140	10,689
NOTES:					

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	20,000	20,000	20,000	20,000	20,000
Demand totals	8,255	8453	8,657	8,860	9,311
Difference	11,745	11,547	11,343	11,140	10,689
NOTES:					

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	20,000	20,000	20,000	20,000	20,000
	Demand totals	8,255	8453	8,657	8,860	9,311
	Difference	11,745	11,547	11,343	11,140	10,689
Second year	Supply totals	20,000	20,000	20,000	20,000	20,000
	Demand totals	8,255	8453	8,657	8,860	9,311
	Difference	11,745	11,547	11,343	11,140	10,689
Third year	Supply totals	20,000	20,000	20,000	20,000	20,000
	Demand totals	8,255	8453	8,657	8,860	9,311
	Difference	11,745	11,547	11,343	11,140	10,689
Fourth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
NOTES:						

Table 8-1 Retail Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction[1] *Numerical value as a percent*	Water Supply Condition (*Narrative description)*
Add additional rows as needed		
1	25-40%	Voluntary, reduction goal of 15%
2	40-50%	Voluntary, reduction goal of 25%
3	50-60%	Mandatory, reduction goal of 30%
4	>60%	Mandatory, reduction goal of 40%
[1] *One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.*		
NOTES:		

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *Drop Down List*
Add additional rows as needed			
1, 2, 3, 4	Landscape - Restrict or prohibit runoff from landscape irrigation		Yes
1, 2, 3, 4	Landscape - Limit landscape irrigation to specific times		Yes
1, 2, 3, 4	Other - Prohibit use of potable water for washing hard surfaces		Yes
1, 2, 3, 4	Other - Require automatic shut of hoses		No
1, 2, 3, 4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		No
1, 2, 3, 4	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water		No
1, 2, 3, 4	Water Features - Restrict water use for decorative water features, such as fountains		No
NOTES:			

Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods		
Stage	Consumption Reduction Methods by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*
Add additional rows as needed		
1, 2, 3, 4	Expand Public Information Campaign	
1, 2, 3, 4	Offer Water Use Surveys	
1, 2, 3, 4	Implement or Modify Drought Rate Structure or Surcharge	
4	Other	Reduce pressure in water lines
4	Other	Flow restriction
4	Other	Restrict for only priority uses
4	Other	Per capita allotment by customer type
1, 2	Other	Voluntary rationing
3, 4	Other	Mandatory rationing
2, 3, 4	Other	Percentage reduction by customer type
NOTES:		

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	20,000	20,000	20,000
NOTES:			

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Ridgecrest	☑	☑
	☐	☐
	☐	☐
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Kern County	☑	☑
San Bernardino County	☑	☑

APPENDIX G

SB X7-7 VERIFICATION FORM

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent with Table 2-3*
NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	8,496	Acre Feet
	2008 total volume of delivered recycled water	-	Acre Feet
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	1998	
	Year ending baseline period range[3]	2007	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2005	
	Year ending baseline period range[4]	2009	

[1] If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period. *[2] The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.*

[3] The ending year must be between December 31, 2004 and December 31, 2010.

[4] The ending year must be between December 31, 2007 and December 31, 2010.

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☐	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☐	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☑	**4. Other** DWR recommends pre-review
NOTES: Data and projections provided by Kern Council of Governments (KernCOG), based on 2010 U.S. Census data.	

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	1998	28,907
Year 2	1999	28,714
Year 3	2000	28,522
Year 4	2001	28,772
Year 5	2002	29,024
Year 6	2003	29,279
Year 7	2004	29,535
Year 8	2005	29,794
Year 9	2006	30,056
Year 10	2007	30,319
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2005	29,794
Year 2	2006	30,056
Year 3	2007	30,319
Year 4	2008	30,585
Year 5	2009	30,853
2015 Compliance Year Population		
2015		33,476
NOTES:		

SB X7-7 Table 4: Annual Gross Water Use *

Baseline Year *Fm SB X7-7 Table 3*		Volume Into Distribution System *This column will remain blank until SB X7-7 Table 4-A is completed.*	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water *This column will remain blank until SB X7-7 Table 4-B is completed.*	Water Delivered for Agricultural Use	Process Water *This column will remain blank until SB X7-7 Table 4-D is completed.*	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1998	8,699			-		-	8,699
Year 2	1999	8,154			-		-	8,154
Year 3	2000	8,331			-		-	8,331
Year 4	2001	8,447			-		-	8,447
Year 5	2002	8,865			-		-	8,865
Year 6	2003	8,605			-		-	8,605
Year 7	2004	8,992			-		-	8,992
Year 8	2005	8,543			-		-	8,543
Year 9	2006	8,865			-		-	8,865
Year 10	2007	9,077			-		-	9,077
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								**8,658**
5 Year Baseline - Gross Water Use								
Year 1	2005	8,543			-		-	8,543
Year 2	2006	8,865			-		-	8,865
Year 3	2007	9,077			-		-	9,077
Year 4	2008	8,496			-		-	8,496
Year 5	2009	8,413			-		-	8,413
5 year baseline average gross water use								**8,679**
2015 Compliance Year - Gross Water Use								
2015		7,077	-		-		-	**7,077**

* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3

NOTES:

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source	Groundwater
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	8,699		8,699
Year 2	1999	8,154		8,154
Year 3	2000	8,331		8,331
Year 4	2001	8,447		8,447
Year 5	2002	8,865		8,865
Year 6	2003	8,605		8,605
Year 7	2004	8,992		8,992
Year 8	2005	8,543		8,543
Year 9	2006	8,865		8,865
Year 10	2007	9,077		9,077
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				
Year 1	2005	8,543		8,543
Year 2	2006	8,865		8,865
Year 3	2007	9,077		9,077
Year 4	2008	8,496		8,496
Year 5	2009	8,413		8,413
2015 Compliance Year - Water into Distribution System				
2015		7,077		7,077

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES:

SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction *(For use only by agencies that are deducting indirect recycled water)*

Baseline Year *Fm SB X7-7 Table 3*		**Surface Reservoir Augmentation**					**Groundwater Recharge**			**Total Deductible Volume of Indirect Recycled Water Entering the Distribution System**
		Volume Discharged from Reservoir for Distribution System Delivery	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility*	Transmission/ Treatment Losses	Recycled Volume Entering Distribution System from Groundwater Recharge	
10-15 Year Baseline - Indirect Recycled Water Use										
Year 1	1998			-		-			-	-
Year 2	1999			-		-			-	-
Year 3	2000			-		-			-	-
Year 4	2001			-		-			-	-
Year 5	2002			-		-			-	-
Year 6	2003			-		-			-	-
Year 7	2004			-		-			-	-
Year 8	2005			-		-			-	-
Year 9	2006			-		-			-	-
Year 10	2007			-		-			-	-
Year 11	0			-		-			-	-
Year 12	0			-		-			-	-
Year 13	0			-		-			-	-
Year 14	0			-		-			-	-
Year 15	0			-		-			-	-
5 Year Baseline - Indirect Recycled Water Use										
Year 1	2005			-		-			-	-
Year 2	2006			-		-			-	-
Year 3	2007			-		-			-	-
Year 4	2008			-		-			-	-
Year 5	2009			-		-			-	-
2015 Compliance - Indirect Recycled Water Use										
2015				-		-			-	-

**Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

NOTES: This table is not applicable to Indian Wells Valley Water District, because the District is not deducting indirect recycled water.

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1998	28,907	8,699	269
Year 2	1999	28,714	8,154	254
Year 3	2000	28,522	8,331	261
Year 4	2001	28,772	8,447	262
Year 5	2002	29,024	8,865	273
Year 6	2003	29,279	8,605	262
Year 7	2004	29,535	8,992	272
Year 8	2005	29,794	8,543	256
Year 9	2006	30,056	8,865	263
Year 10	2007	30,319	9,077	267
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**264**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2005	29,794	8,543	256
Year 2	2006	30,056	8,865	263
Year 3	2007	30,319	9,077	267
Year 4	2008	30,585	8,496	248
Year 5	2009	30,853	8,413	243
5 Year Average Baseline GPCD				**256**
2015 Compliance Year GPCD				
2015		33,476	7,077	**189**
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	264
5 Year Baseline GPCD	256
2015 Compliance Year GPCD	189
NOTES:	

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
☐	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 Table 7-E
☑	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
264	**211**
NOTES: This table is not applicable to Indian Wells Valley Water District, as the District has used Target Method 4.	

SB X7-7 Table 7-E: Target Method 3				
Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
☐		North Coast	137	130
☐		North Lahontan	173	164
☐		Sacramento River	176	167
☐		San Francisco Bay	131	124
☐		San Joaquin River	174	165
☐		Central Coast	123	117
☐		Tulare Lake	188	179
☐		South Lahontan	170	162
☐		South Coast	149	142
☐		Colorado River	211	200
Target *(If more than one region is selected, this value is calculated.)*				**0**

NOTES: This table is not applicable to Indian Wells Valley Water District, as the District has used Target Method 4.

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target[1]	Calculated 2020 Target[2]	**Confirmed 2020 Target**
256	243	214	**214**

[1] Maximum 2020 Target is 95% of the 5 Year Baseline GPCD *[2] 2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.*

NOTES:

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	**2015 Interim Target GPCD**
214	264	**239**
NOTES:		

SB X7-7 Table 9: 2015 Compliance

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)* Enter "0" if Adjustment Not Used: Extraordinary Events	Weather Normalization	Economic Adjustment	TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	**Did Supplier Achieve Targeted Reduction for 2015?**
189	239	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	-	189	189	**YES**

NOTES:

APPENDIX H

CLIMATE AND EVAPOTRANSPIRATION DATA

CLIMATE SUMMARY

INYOKERN, CALIFORNIA (044278)

Period of Record Monthly Climate Summary

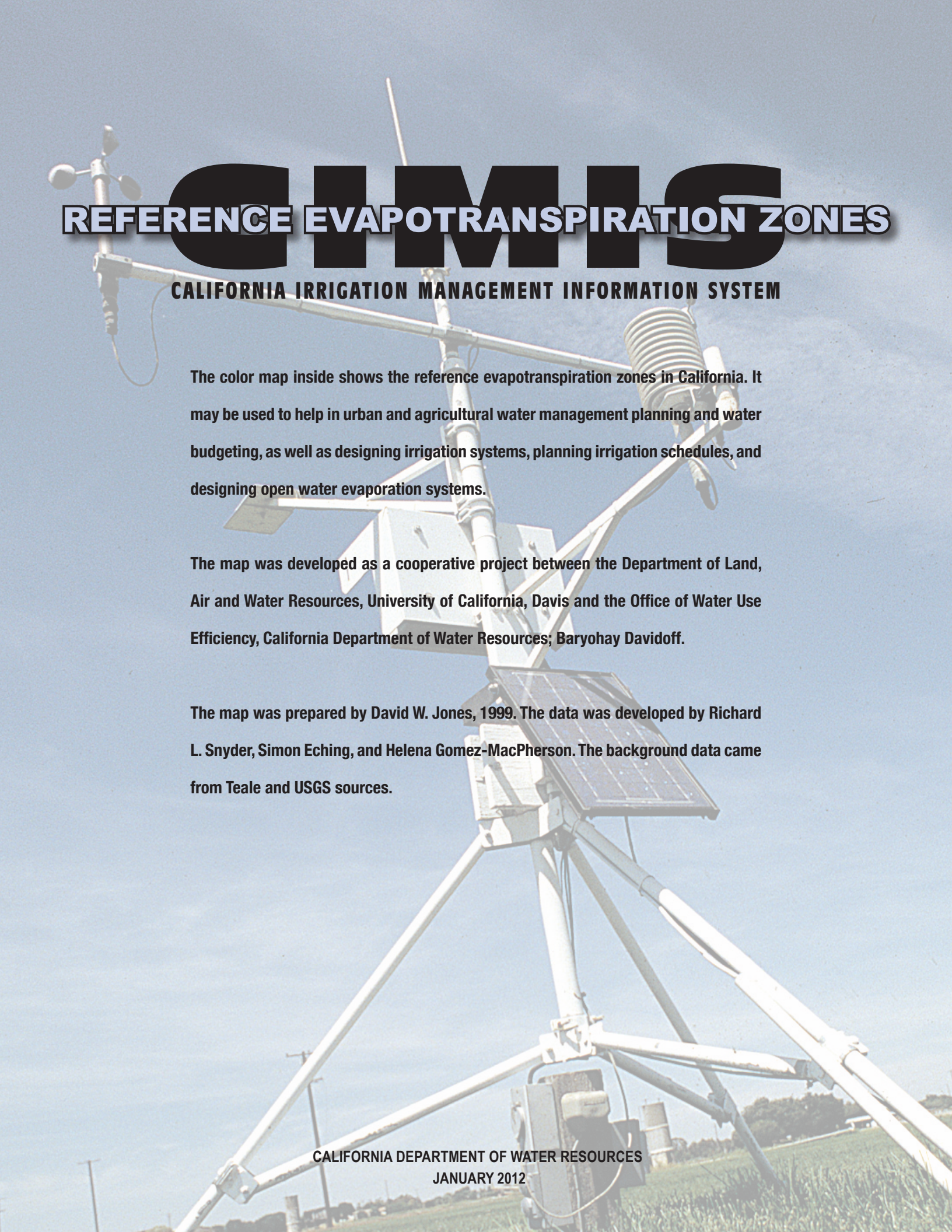
Period of Record : 11/17/1940 to 12/27/2012

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	59.6	64.8	70.3	77.7	87.0	96.7	102.7	101.2	94.2	83.2	69.0	59.7	80.5
Average Min. Temperature (F)	30.8	34.6	38.7	44.3	52.9	60.5	66.2	64.6	58.1	48.2	37.3	30.2	47.2
Average Total Precipitation (in.)	0.74	0.95	0.55	0.17	0.07	0.02	0.16	0.22	0.20	0.10	0.38	0.59	4.17
Average Total SnowFall (in.)	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 96% Min. Temp.: 95% Precipitation: 96.8% Snowfall: 96.6% Snow Depth: 96.3%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

ETo DATA



CIMIS

REFERENCE EVAPOTRANSPIRATION ZONES

CALIFORNIA IRRIGATION MANAGEMENT INFORMATION SYSTEM

The color map inside shows the reference evapotranspiration zones in California. It may be used to help in urban and agricultural water management planning and water budgeting, as well as designing irrigation systems, planning irrigation schedules, and designing open water evaporation systems.

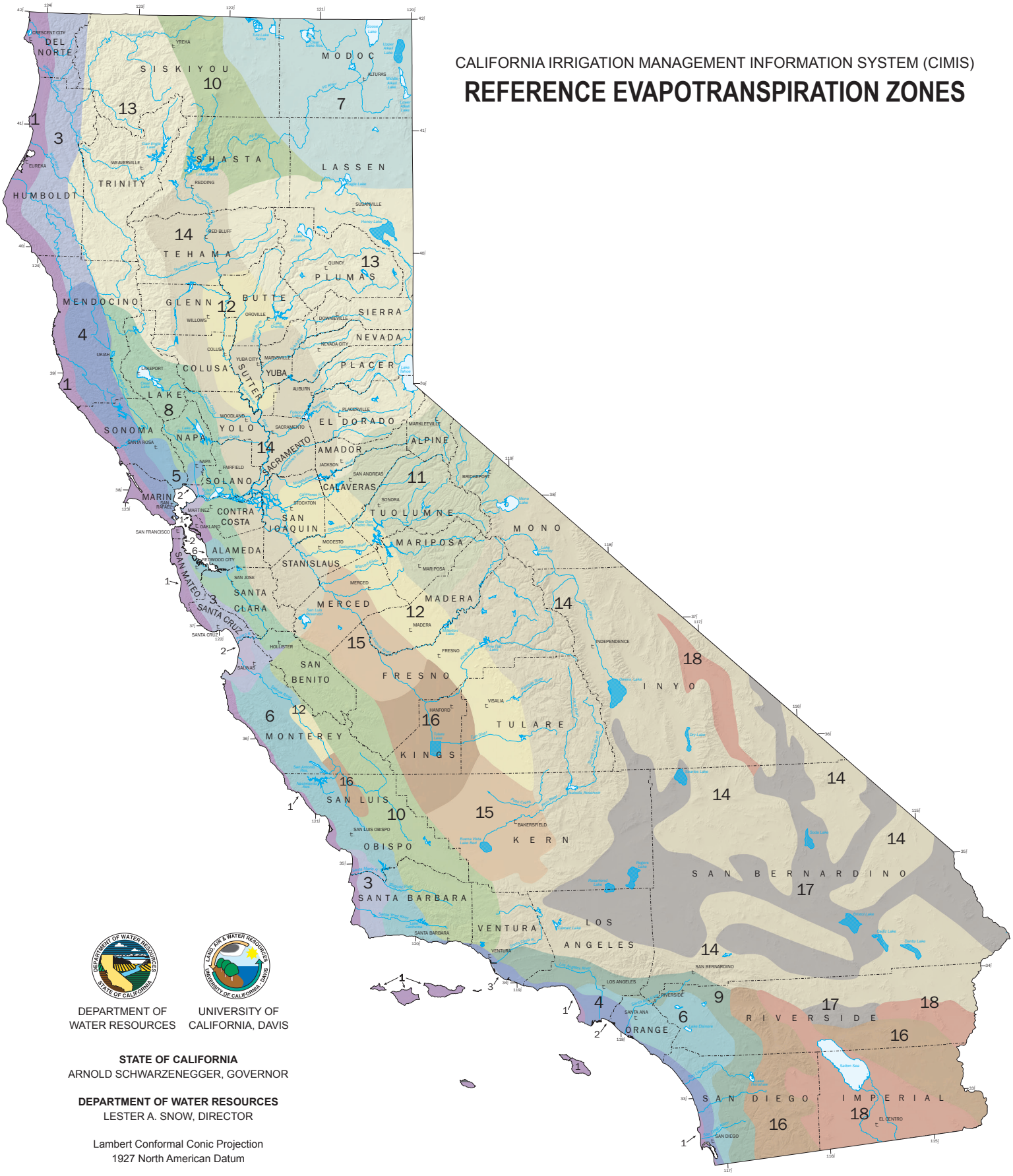
The map was developed as a cooperative project between the Department of Land, Air and Water Resources, University of California, Davis and the Office of Water Use Efficiency, California Department of Water Resources; Baryohay Davidoff.

The map was prepared by David W. Jones, 1999. The data was developed by Richard L. Snyder, Simon Eching, and Helena Gomez-MacPherson. The background data came from Teale and USGS sources.

CALIFORNIA DEPARTMENT OF WATER RESOURCES
JANUARY 2012

CALIFORNIA IRRIGATION MANAGEMENT INFORMATION SYSTEM (CIMIS)

REFERENCE EVAPOTRANSPIRATION ZONES



DEPARTMENT OF WATER RESOURCES

UNIVERSITY OF CALIFORNIA, DAVIS

STATE OF CALIFORNIA
ARNOLD SCHWARZENEGGER, GOVERNOR

DEPARTMENT OF WATER RESOURCES
LESTER A. SNOW, DIRECTOR

Lambert Conformal Conic Projection
1927 North American Datum

Reference EvapoTranspiration (ETo) Zones

1 **COASTAL PLAINS HEAVY FOG BELT** lowest ETo in California, characterized by dense fog

2 **COASTAL MIXED FOG AREA** less fog and higher ETo than zone 1

3 **COASTAL VALLEYS & PLAINS & NORTH COAST MOUNTAINS** more sunlight than zone 2

4 **SOUTH COAST INLAND PLAINS & MOUNTAINS NORTH OF SAN FRANCISCO** more sunlight and higher summer ETo than zone 3

5 **NORTHERN INLAND VALLEYS** valleys north of San Franciaco

6 **UPLAND CENTRAL COAST & LOS ANGELES BASIN** higher elevation coastal areas

7 **NORTHEASTERN PLAINS**

8 **INLAND SAN FRANCISCO BAY AREA** inland area near San Francisco with some marine influence

9 **SOUTH COAST MARINE TO DESERT TRANSITION** inland area between marine & desert climates

10 **NORTH CENTRAL PLATEAU & CENTRAL COAST RANGE** cool, high elevation areas with strong summer sunlight; zone has limited climate data & the zones selection is somewhat subjective

11 **CENTRAL SIERRA NEVADA** mountain valleys east of Sacramento with some influence from delta breeze in summer

12 **EAST SIDE SACRAMENTO-SAN JOAQUIN VALLEY** low winter & high summer ETo with slightly lower ETo than zone 14

13 **NORTHERN SIERRA NEVADA** northern Sierra Nevada mountain valleys with less marine influence than zone 11

14 **MID-CENTRAL VALLEY, SOUTHERN SIERRA NEVADA, TEHACHAPI & HIGH DESERT MOUNTAINS** high summer sunshine and wind in some locations

15 **NORTHERN & SOUTHERN SAN JOAQUIN VALLEY** slightly lower winter ETo due to fog and slightly higher summer ETo than zones 12 & 14

16 **WESTSIDE SAN JOAQUIN VALLEY & MOUNTAINS EAST & WEST OF IMPERIAL VALLEY**

17 **HIGH DESERT VALLEYS** valleys in the high desert near Nevada and Arizona

18 **IMPERIAL VALLEY, DEATH VALLEY & PALO VERDE** low desert areas with high sunlight & considerable heat advection

Monthly Average Reference Evapotranspiration by ETo Zone (inches/month)

Zone	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1	0.93	1.40	2.48	3.30	4.03	4.50	4.65	4.03	3.30	2.48	1.20	0.62	32.9
2	1.24	1.68	3.10	3.90	4.65	5.10	4.96	4.65	3.90	2.79	1.80	1.24	39.0
3	1.86	2.24	3.72	4.80	5.27	5.70	5.58	5.27	4.20	3.41	2.40	1.86	46.3
4	1.86	2.24	3.41	4.50	5.27	5.70	5.89	5.58	4.50	3.41	2.40	1.86	46.6
5	0.93	1.68	2.79	4.20	5.58	6.30	6.51	5.89	4.50	3.10	1.50	0.93	43.9
6	1.86	2.24	3.41	4.80	5.58	6.30	6.51	6.20	4.80	3.72	2.40	1.86	49.7
7	0.62	1.40	2.48	3.90	5.27	6.30	7.44	6.51	4.80	2.79	1.20	0.62	43.3
8	1.24	1.68	3.41	4.80	6.20	6.90	7.44	6.51	5.10	3.41	1.80	0.93	49.4
9	2.17	2.80	4.03	5.10	5.89	6.60	7.44	6.82	5.70	4.03	2.70	1.86	55.1
10	0.93	1.68	3.10	4.50	5.89	7.20	8.06	7.13	5.10	3.10	1.50	0.93	49.1
11	1.55	2.24	3.10	4.50	5.89	7.20	8.06	7.44	5.70	3.72	2.10	1.55	53.1
12	1.24	1.96	3.41	5.10	6.82	7.80	8.06	7.13	5.40	3.72	1.80	0.93	53.4
13	1.24	1.96	3.10	4.80	6.51	7.80	8.99	7.75	5.70	3.72	1.80	0.93	54.3
14	1.55	2.24	3.72	5.10	6.82	7.80	8.68	7.75	5.70	4.03	2.10	1.55	57.0
15	1.24	2.24	3.72	5.70	7.44	8.10	8.68	7.75	5.70	4.03	2.10	1.24	57.9
16	1.55	2.52	4.03	5.70	7.75	8.70	9.30	8.37	6.30	4.34	2.40	1.55	62.5
17	1.86	2.80	4.65	6.00	8.06	9.00	9.92	8.68	6.60	4.34	2.70	1.86	66.5
18	2.48	3.36	5.27	6.90	8.68	9.60	9.61	8.68	6.90	4.96	3.00	2.17	71.6

Variability between stations within single zones is as high as 0.02 inches per day for zone 1 and during winter months in zone 13. The average standard deviation of the ETo between estimation sites wihtin a zone for all months is about 0.01 inches per day for the 200 sites used to develop the map.

STATE OF CALIFORNIA
THE NATURAL RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

CIMIS Information
wwwcimis.water.ca.gov

PRECIPITATION DATA

March US release: Wed, 6 Apr 2016, 11:00 AM EDT

Climate at a Glance

NCEI added Alaska climate divisions to its nClimDiv dataset on Friday, March 6, 2015, coincident with the release of the February 2015 monthly monitoring report. For more information on this data, please visit the Alaska Climate Divisions FAQ.

Time Series

U.S.

Choose from the options below and click "Plot" to create a time series graph.

Please note, **Degree Days** *are not available for* **Agricultural Belts**, **NWS Regions**, **Alaska** *and* **Cities**; **Palmer Indices** *are not available for* **NWS Regions**, **Alaska** *and* **Cities**.

Parameter:	Precipitation
Time Scale:	12-Month
Month:	September
Start Year:	1895
End Year:	2015
State/Region:	California
Climate Division/City:	CD 5. San Joaquin Drainage

Options

- ☑ **Display Base Period** — Start: 1901 End: 2016
- ☐ **Display Trend** — ○ per Decade ○ per Century — Start: 1895 End: 2016
- ☐ **Smoothed Time Series** — ○ Binomial Filter ○ LOESS

Plot

Move mouse towards an axis until highlighted. Left-click mouse to **pan**. *Shift key + left-click to* **zoom**.

Download:

DATES	VALUE	RANK	ANOMALY (19.79") 1901-2015 BASE PERIOD
189510 - 189609	24.01"	93	4.22"
189610 - 189709	22.50"	84	2.71"
189710 - 189809	13.08"	16	-6.71"
189810 - 189909	16.36"	46	-3.43"
189910 - 190009	18.65"	63	-1.14"
190010 - 190109	28.00"	105	8.21"
190110 - 190209	16.07"	38	-3.72"
190210 - 190309	17.72"	58	-2.07"
190310 - 190409	20.89"	73	1.10"
190410 - 190509	20.12"	71	0.33"
190510 - 190609	28.60"	107	8.81"
190610 - 190709	28.68"	108	8.89"
190710 - 190809	16.09"	41	-3.70"
190810 - 190909	23.44"	91	3.65"
190910 - 191009	19.93"	68	0.14"
191010 - 191109	26.11"	101	6.32"
191110 - 191209	13.52"	20	-6.27"
191210 - 191309	13.25"	19	-6.54"
191310 - 191409	24.36"	95	4.57"

191410 - 191509	23.19"	89	3.40"
191510 - 191609	23.07"	88	3.28"
191610 - 191709	17.85"	59	-1.94"
191710 - 191809	16.94"	54	-2.85"
191810 - 191909	16.39"	48	-3.40"
191910 - 192009	16.20"	43	-3.59"
192010 - 192109	19.44"	65	-0.35"
192110 - 192209	23.04"	87	3.25"
192210 - 192309	19.69"	66	-0.10"
192310 - 192409	8.65"	1	-11.14"
192410 - 192509	21.27"	74	1.48"
192510 - 192609	15.21"	31	-4.58"
192610 - 192709	22.39"	82	2.60"
192710 - 192809	16.59"	51	-3.20"
192810 - 192909	14.48"	24	-5.31"
192910 - 193009	14.91"	29	-4.88"
193010 - 193109	12.80"	11	-6.99"
193110 - 193209	22.30"	80	2.51"
193210 - 193309	14.22"	22	-5.57"
193310 - 193409	12.62"	10	-7.17"
193410 - 193509	24.36"	95	4.57"
193510 - 193609	23.21"	90	3.42"
193610 - 193709	24.51"	96	4.72"
193710 - 193809	31.09"	115	11.30"
193810 - 193909	15.69"	35	-4.10"
193910 - 194009	22.48"	83	2.69"
194010 - 194109	28.89"	109	9.10"
194110 - 194209	22.80"	86	3.01"
194210 - 194309	23.89"	92	4.10"
194310 - 194409	17.33"	56	-2.46"
194410 - 194509	21.66"	77	1.87"

194510 - 194609	18.61"	62	-1.18"
194610 - 194709	15.34"	33	-4.45"
194710 - 194809	15.99"	37	-3.80"
194810 - 194909	14.70"	27	-5.09"
194910 - 195009	16.31"	45	-3.48"
195010 - 195109	21.50"	75	1.71"
195110 - 195209	28.56"	106	8.77"
195210 - 195309	16.44"	50	-3.35"
195310 - 195409	16.88"	53	-2.91"
195410 - 195509	16.08"	40	-3.71"
195510 - 195609	26.00"	100	6.21"
195610 - 195709	16.38"	47	-3.41"
195710 - 195809	30.39"	113	10.60"
195810 - 195909	12.58"	9	-7.21"
195910 - 196009	12.90"	13	-6.89"
196010 - 196109	13.14"	17	-6.65"
196110 - 196209	20.50"	72	0.71"
196210 - 196309	22.32"	81	2.53"
196310 - 196409	14.21"	21	-5.58"
196410 - 196509	22.77"	85	2.98"
196510 - 196609	14.64"	26	-5.15"
196610 - 196709	29.21"	110	9.42"
196710 - 196809	13.23"	18	-6.56"
196810 - 196909	35.14"	119	15.35"
196910 - 197009	17.60"	57	-2.19"
197010 - 197109	18.00"	60	-1.79"
197110 - 197209	12.06"	6	-7.73"
197210 - 197309	24.81"	97	5.02"
197310 - 197409	21.81"	78	2.02"
197410 - 197509	19.84"	67	0.05"
197510 - 197609	12.52"	8	-7.27"
197610 - 197709	8.77"	2	-11.02"

197710 - 197809	33.89"	117	14.10"
197810 - 197909	19.19"	64	-0.60"
197910 - 198009	26.40"	102	6.61"
198010 - 198109	15.11"	30	-4.68"
198110 - 198209	30.86"	114	11.07"
198210 - 198309	38.01"	120	18.22"
198310 - 198409	18.60"	61	-1.19"
198410 - 198509	16.29"	44	-3.50"
198510 - 198609	27.58"	104	7.79"
198610 - 198709	12.00"	5	-7.79"
198710 - 198809	15.29"	32	-4.50"
198810 - 198909	16.07"	38	-3.72"
198910 - 199009	12.85"	12	-6.94"
199010 - 199109	16.16"	42	-3.63"
199110 - 199209	16.39"	48	-3.40"
199210 - 199309	27.37"	103	7.58"
199310 - 199409	14.48"	24	-5.31"
199410 - 199509	33.38"	116	13.59"
199510 - 199609	21.99"	79	2.20"
199610 - 199709	25.07"	98	5.28"
199710 - 199809	35.08"	118	15.29"
199810 - 199909	17.13"	55	-2.66"
199910 - 200009	20.10"	70	0.31"
200010 - 200109	16.74"	52	-3.05"
200110 - 200209	15.65"	34	-4.14"
200210 - 200309	20.01"	69	0.22"
200310 - 200409	14.74"	28	-5.05"
200410 - 200509	29.34"	111	9.55"
200510 - 200609	25.82"	99	6.03"
200610 - 200709	11.43"	4	-8.36"
200710 - 200809	14.47"	23	-5.32"

200810 - 200909	15.83"	36	-3.96"
200910 - 201009	21.53"	76	1.74"
201010 - 201109	29.55"	112	9.76"
201110 - 201209	12.94"	14	-6.85"
201210 - 201309	13.00"	15	-6.79"
201310 - 201409	10.04"	3	-9.75"
201410 - 201509	12.15"	7	-7.64"

APPENDIX I

IWVWD WATER AUDIT REPORT FOR REPORTING YEAR 2015

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: Indian Wells Valley Water District (1510017)
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.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ----------> | Pcnt: | Value:

Volume from own sources:	+ ?	9	6,244.400	acre-ft/yr	+ ?	3			-22.230	acre-ft/yr
Water imported:	+ ?		0.000	acre-ft/yr	+ ?					acre-ft/yr
Water exported:	+ ?		0.000	acre-ft/yr	+ ?					acre-ft/yr

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

WATER SUPPLIED: 6,266.630 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

Pcnt: | Value:

Billed metered:	+ ?	7	5,915.200	acre-ft/yr			
Billed unmetered:	+ ?		0.000	acre-ft/yr			
Unbilled metered:	+ ?			acre-ft/yr			
Unbilled unmetered:	+ ?		78.333	acre-ft/yr	1.25%		acre-ft/yr

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

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: ? 5,993.533 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

273.097 acre-ft/yr

Apparent Losses

Pcnt: | Value:

Unauthorized consumption:	+ ?		15.667	acre-ft/yr	0.25%		acre-ft/yr

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

Customer metering inaccuracies:	+ ?	3	0.000	acre-ft/yr			acre-ft/yr
Systematic data handling errors:	+ ?		14.788	acre-ft/yr	0.25%		acre-ft/yr

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

Apparent Losses: ? 30.455 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: ? 242.643 acre-ft/yr

WATER LOSSES: 273.097 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: ? 351.430 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+ ?	4	235.0	miles
Number of active AND inactive service connections:	+ ?	8	12,595	
Service connection density:	?		54	conn./mile main

Are customer meters typically located at the curbstop 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: + ? 3 60.0 psi

COST DATA

Total annual cost of operating water system:	+ ?	10	$9,529,790	$/Year
Customer retail unit cost (applied to Apparent Losses):	+ ?	10	$1.35	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+ ?	10	$126.46	$/acre-ft

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 78 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: Customer metering inaccuracies
2: Volume from own sources
3: Billed metered

APPENDIX J

COOPERATIVE GROUNDWATER MANAGEMENT PLAN FOR THE INDIAN WELLS VALLEY

Cooperative Groundwater Management Plan for the Indian Wells Valley

Preamble:

The groundwater aquifer system in the Indian Wells Valley (as shown in Figure #1) is complex and the supply is finite. Substantial data is available regarding groundwater production in the Valley but only limited data exist pertaining to the aquifer characteristics. While considerable data has been collected through individual and cooperative technical studies, there is still a need for additional information to further characterize the watershed and to support the management of the aquifer system in the Valley.

Large-scale cooperative groundwater technical studies have been completed and are continuing in the Indian Wells Valley. The results of this effort contributed valuable insights to the nature of the Valley's groundwater resources. Based on these studies, the major participants in the study (the Indian Wells Valley Water District, Naval Air Weapons Station/China Lake, Searles Valley Minerals) and other Parties have concluded that it is in their best interest to participate in the development of this Cooperative Groundwater Management Plan (the "Plan") to extend the useful life of the groundwater resources to meet current and foreseeable user needs in the Valley.

Purpose:

The purpose of this Plan is to:

1) set forth guidelines and management principles for the production, distribution, and use of groundwater within the purview of the participants;
2) further develop (cooperatively or individually) the technical data and analytical capabilities to better understand the nature and characteristics of the watershed and aquifer system;
3) apply these guidelines toward sound management practices to extend the useful life of the groundwater resource to meet current and foreseeable future demands;
4) coordinate interested local agencies and water producers into a cooperative planning effort to share information and management practices to maintain the life of the resource.

The Parties agree that, within the framework established by this Plan, the Parties themselves are best able to determine how to meet their respective future water supply needs and assure the availability of a long-term, high quality water supply.

The Parties recognize the varied beneficial uses within the Valley, including residential, agricultural, industrial, municipal, commercial, and public. In addition, Searles Valley Minerals currently exports water from the Valley. Groundwater planning for the Valley must take these existing uses into account.

This Plan is not intended to alter or affect any existing water rights, and no Party, by executing this Plan, waives any of its rights.

This Plan is intended to be a flexible document. As more groundwater information becomes available through technical studies, data collection and analysis, and experience in interpreting the effects of pumping pattern changes it is expected, and agreed, that this Plan will be modified accordingly.

Planning Concerns:

The following concerns have provided the incentive to the Parties for participating in a cooperative planning effort in the Indian Wells Valley.

1) Water levels have declined in areas within the Valley.
2) As depth to groundwater increases, production and distribution costs will increase.
3) As depth to groundwater increases, the potential exists for poorer quality water to mix with and degrade higher quality water.
4) Some portion of the recharge to the Valley from the Sierra Nevada may be lost to evaporation in the China Lake playa.
5) Our understanding of the geohydrology of the Valley is based on groundwater quantity and quality data collected from available production and monitoring wells located throughout much of the Valley. The recharge and discharge characteristics of the aquifer are not fully understood. Adequacy of the known groundwater reserves to meet future demands shall be determined.

Planning Objectives / Groundwater Management Guidelines:

In an effort to successfully address the aforementioned concerns, the Parties' actions will be directed toward the following groundwater management objectives:

Planning Objective #1: Limit additional large scale pumping in areas that appear to be adversely impacted.

No Signatory producing water will increase it's annual production of water from the groundwater depression identified in Figure #2 (applies to extractions greater than 5 AF/yr.). The water producing Signatories' long-term goal is to limit new and reduce existing production in this area to the fullest extent possible over an economically reasonable time frame.

Planning Objective #2: Distribute new groundwater extraction within the Valley in a manner that will minimize adverse effects to existing groundwater conditions (levels and quality), and maximize the long-term supply within the Valley.

Future groundwater development by the Parties will be distributed within the Valley in a manner that is designed in accordance with aquifer characteristics. The Parties will consider developing, to the fullest extent possible, individually or as a cooperating group, wells in the outlying areas of the Valley. Areas such as Indian Wells Valley Water District's southwest field should be considered as should wells designed to capture recharge from all areas of the watershed. As a general guideline, the location and capacity of new production wells (excluding domestic wells) should not unreasonably interfere with existing wells.

Planning Objective #3: Aggressively pursue the development and implementation of water conservation and education programs.

The Parties have collectively developed a written policy regarding water conservation (Water Conservation Public Advisory) and will continue to develop, to the extent possible, water conservation guidelines and education programs.

Planning Objective #4: Encourage the use of treated water, reclaimed water, recycled, gray and lower quality water where appropriate and economically feasible.

The Parties will consider, individually or collectively, use of non-potable water, such as treated sewage effluent or poorer quality sources, for appropriate re-use applications. The Parties will consider constructing, individually or collectively, recharge facilities including spreading basins and other types of facilities to capture and conserve storm water flows to augment efforts to replenish groundwater reserves. Water treatment and blending of different quality waters should be pursued to extend the life of the groundwater resource.

Planning Objective #5: Explore the potential for other types of water management programs that are beneficial to the Valley.

The Parties will consider, individually or collectively, projects such as water transfers, water banking, water importation, groundwater replenishment, and other programs that will enhance or prolong the groundwater reserves in the Valley. The Parties may consider joint acquisition, use, and operation of such projects and/or programs.

The Parties will coordinate with, and provide input to, land use planning authorities regarding water-intensive development activities within the Valley.

The Parties will review any new proposed export of water from the Valley with respect to its effect on groundwater resources, and make appropriate response, including but not limited to participation in the environmental review and planning process.

Planning Objective #6: Continue cooperative efforts to develop information and data which contributes to further defining and better understanding the groundwater resource in the Indian Wells Valley.

The Parties will continue to cooperate, to the fullest extent possible, in data gathering and analysis projects focusing on groundwater recharge, discharge, storage, quality, quantity, transmissivity and storativity as it pertains to the groundwater resources of the Indian Wells Valley. In conjunction with this objective, the Parties have collectively developed and will continue to develop a Water Sampling Plan, a Water Level Measurement Protocol, and a Monitor Well Selection Protocol.

Planning Objective #7: Develop an interagency management framework to implement objectives of this Plan.

The following entities are signatories on this Plan: Eastern Kern County, Resource Conservation District, Indian Wells Valley Airport District, Indian Wells Valley Water District, Inyokern Community Services District, Kern County Water Agency, Naval Air Weapons Station/China Lake, Searles Valley Minerals, the City of Ridgecrest, Quist Farms, the Bureau of Land Management, and **Kern County.**

The Parties may develop a cooperative agreement which defines the roles, responsibilities, rights, and obligations of all participants, affords opportunities to enlist new members and provides the administrative framework for implementing applicable elements of this Plan. A Steering Committee with representatives from each signing entity has been established to assist with coordinating each signing entity's groundwater management actions in conformity to the Plan.

Signing this Plan does not create any financial obligations. Future financial obligations will be determined in the agreement developed to implement this plan.

Severability:

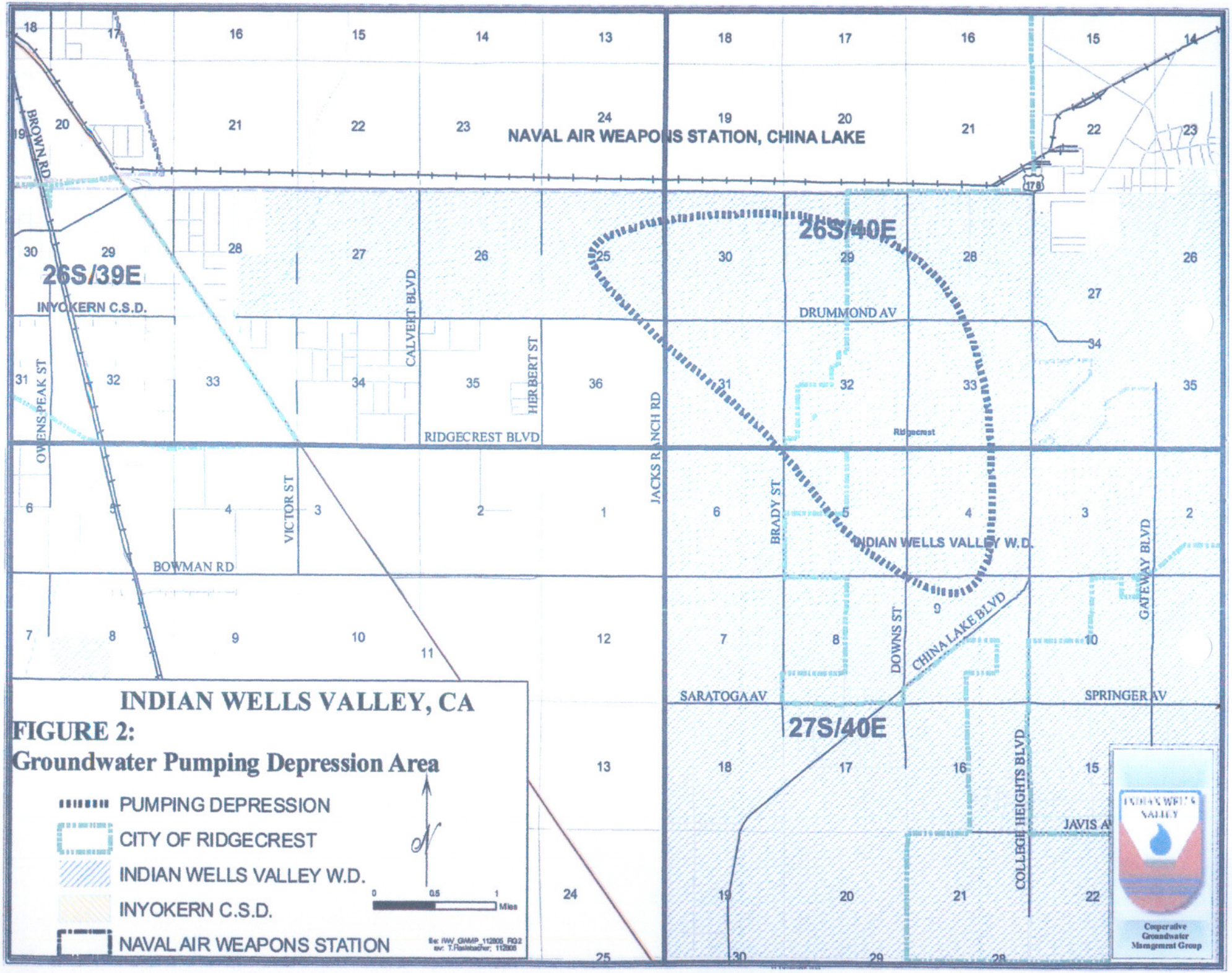
If any part of this Plan is declared invalid by a court of law, the remaining provisions of the Plan shall continue in full force and effect.

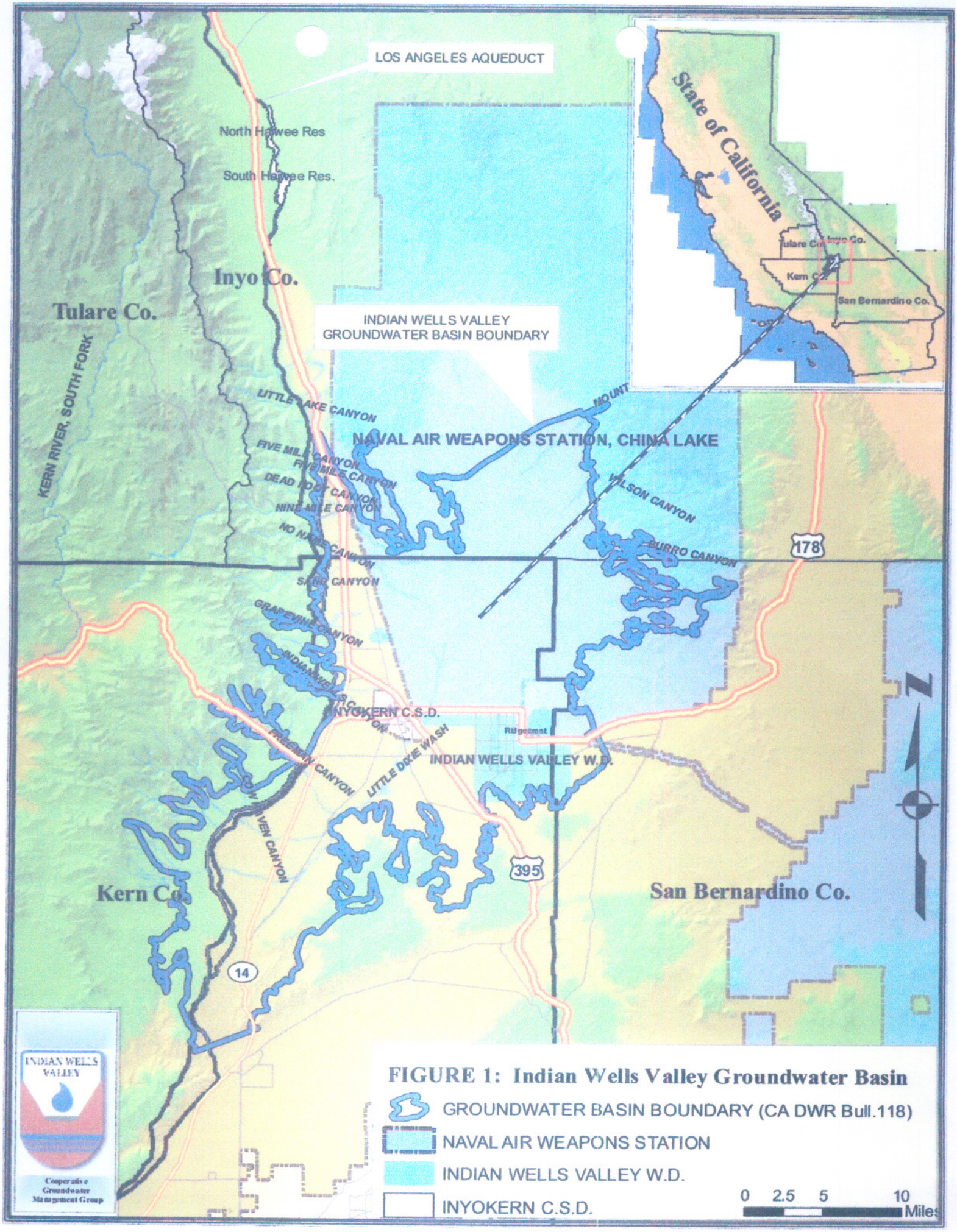
Changes:

It is understood and agreed that this Plan contains all the provisions agreed upon by the Parties thereto. This Plan may be amended at any time by mutual written consent of the Parties. Notice of proposed changes must be submitted to the other Parties at least thirty (30) days in advance of the proposed change.

Effective Date, Termination, and Withdraw:

This Plan is effective when signed, and will remain in effect until amended or terminated by mutual written agreement. Any Party may withdraw from this Plan by giving the other Parties six months' written notice.


NAVAL AIR WEAPONS STATION, CHINA LAKE
26S/39E
INYOKERN C.S.D.
26S/40E
DRUMMOND AV
RIDGECREST BLVD
INDIAN WELLS VALLEY W.D.
BOWMAN RD
SARATOGA AV
SPRINGER AV
27S/40E
BROWN RD
OWENS PEAK ST
CALVERT BLVD
HERBERT ST
JACKS RANCH RD
VICTOR ST
BRADY ST
DOWNS ST
CHINA LAKE BLVD
GATEWAY BLVD
COLLEGE HEIGHTS BLVD
JAVIS AV
178
Ridgecrest
INDIAN WELLS VALLEY
Cooperative Groundwater Management Group
INDIAN WELLS VALLEY, CA
FIGURE 2:
Groundwater Pumping Depression Area
PUMPING DEPRESSION
CITY OF RIDGECREST
INDIAN WELLS VALLEY W.D.
INYOKERN C.S.D.
NAVAL AIR WEAPONS STATION
N
0
0.5
1
Miles
file: IWV_GMMP_112806_RG2
rev: T.Rastebacher; 112806


LOS ANGELES AQUEDUCT
North Haiwee Res
South Haiwee Res.
Inyo Co.
Tulare Co.
KERN RIVER, SOUTH FORK
INDIAN WELLS VALLEY
GROUNDWATER BASIN BOUNDARY
State of California
Tulare Co.
Inyo Co.
Kern Co.
San Bernardino Co.
LITTLE LAKE CANYON
FIVE MILE CANYON
DEAD ROCK CANYON
NINE MILE CANYON
NO NAME CANYON
SALT CANYON
GRAPEVINE CANYON
INDIAN WELLS CANYON
FREMONT CANYON
COW VEN CANYON
LITTLE DIXIE WASH
NAVAL AIR WEAPONS STATION, CHINA LAKE
MOUNT
WILSON CANYON
BURRO CANYON
178
395
14
INYOKERN C.S.D.
Ridgecrest
INDIAN WELLS VALLEY W.D.
Kern Co.
San Bernardino Co.
N
INDIAN WELLS VALLEY
Cooperative Groundwater Management Group
FIGURE 1: Indian Wells Valley Groundwater Basin
GROUNDWATER BASIN BOUNDARY (CA DWR Bull.118)
NAVAL AIR WEAPONS STATION
INDIAN WELLS VALLEY W.D.
INYOKERN C.S.D.
0 2.5 5 10
Miles

Revised and accepted this 16TH day of March, 2006 at Ridgecrest, California

NAVAL AIR WEAPONS STATION
CHINA LAKE

KERN COUNTY WATER AGENCY

CITY OF RIDGECREST

INYOKERN COMMUNITY SERVICES
DISTRICT

INDIAN WELLS VALLEY WATER
DISTRICT

SEARLES VALLEY MINERALS

EASTERN KERN COUNTY
RESOURCES CONSERVATION
DISTRICT

INDIAN WELLS VALLEY AIRPORT

BUREAU OF LAND MANAGEMENT

QUIST FARMS

KERN COUNTY

By: Barbara Patrick JAN 31 2006
Chairman, Board of Supervisors

APPROVED AS TO CONTENT:

Planning Department

By: Ted Jan
Planning Director

APPROVED AS TO FORM:

Office of County Counsel

By: Bruce Dwelbus
Deputy

APPENDIX K

RESOLUTION 92-08 AND
ORDINANCES 93, 98, 99, AND 100

RESOLUTION 92-08

RESOLUTION NO. 92-08

RESOLUTION OF THE BOARD OF DIRECTORS OF THE INDIAN WELLS VALLEY WATER DISTRICT, KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA, ADOPTING THE WATER SHORTAGE CONTINGENCY PLAN

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, 10621, 10631, and 10652, and to add Section 10656 to the California Water Code, relating to water); and

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

WHEREAS, the Indian Wells Valley Water District is an urban supplier of water providing water to more than 3,000 customers and has, therefore, prepared and circulated for public review a draft Water Shortage Contingency Plan; and

WHEREAS, in compliance with the requirements of AB11X, a properly noticed public hearing regarding said draft Plan was held by the District's Board of Directors on April 13, 1992, and a final Water Shortage Contingency Plan was prepared;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Indian Wells Valley Water District, as follows:

Section 1. The Board of Directors hereby adopts the attached Water Shortage Contingency Plan;

Section 2. The District Manager is hereby authorized and directed to file this Plan with the California Department of Water Resources;

Section 3. The District Manager shall recommend to the Board of Directors regarding additional procedures, rules and regulations to carry out effective and equitable allocation of water resources during a water shortage.

ADOPTED this 27th day of April, 1992.

President of the Indian Wells Valley Water District and of the Board of Directors thereof.

ATTEST:

Secretary of the Indian Wells Valley Water District and of the Board of Directors thereof.

(SEAL)

STATE OF CALIFORNIA)
)
COUNTIES OF KERN)
AND SAN BERNARDINO)

I, WARREN F. MC GOWAN, Secretary of the Board of Directors of the Indian Wells Valley Water District, DO HEREBY CERTIFY that the foregoing Resolution was duly adopted by the Board of Directors of said District at a Regular Meeting of the Board held on the 27th day of April, 1992, and that it was so adopted by the following vote:

AYES: President Rick Cockrum
Vice-President Judith A. Decker
Director Leroy H. Corlett
Director Don J. McKernan
Director Rex L. Smith

NOES: None

ABSENT: None

ABSTAIN: None

Secretary of the Indian Wells Valley Water District and of the Board of Directors thereof.

(SEAL)

STATE OF CALIFORNIA)
)
COUNTIES OF KERN)
AND SAN BERNARDINO)

I, WARREN F. MC GOWAN, Secretary of the Board of Directors of the Indian Wells Valley Water District, DO HEREBY CERTIFY that the above and foregoing is a full, true and correct copy of Resolution No. 92-08 of said Board, and that the same has not been amended or repealed.

DATE: April 27, 1992

Secretary of the Indian Wells Valley Water District and of the Board of Directors thereof.

(SEAL)

ORDINANCE 93

ORDINANCE NO. 93

ORDINANCE OF THE BOARD OF DIRECTORS OF THE INDIAN WELLS VALLEY WATER DISTRICT, KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA, RESCINDING ORDINANCE NO. 72 IN ITS ENTIRETY; AND ADOPTING VOLUNTARY AND MANDATORY CONSERVATION MEASURES AND RECOMMENDING AND/OR REQUIRING CERTAIN WATER CONSERVING MEASURES

WHEREAS, the Indian Wells Valley Water District (District) is a County Water District formed and operating under and pursuant to California Water District Law (California Water Code §§ 30000 *et seq.*); and

WHEREAS, pursuant to Water Code § 31001, the District is authorized to perform all acts necessary to fully carry out its functions; and

WHEREAS, pursuant to Water Code § 31035, the District may undertake a water conservation program to reduce water use and may require as a condition of new service that reasonable watersaving devices and water reclamation devices be installed to reduce water use; and

WHEREAS, the Board of Directors of the District find that the water sources available to the District and all the other water users in the Indian Wells Valley is a limited resource and must be conserved to the fullest extent possible.

WHEREAS, a Memorandum of Understanding was made and entered into by and between the District and the City of Ridgecrest (City) for the mutual goal of conserving groundwater and adopting a water efficient landscape ordinance.

NOW THEREFORE, BE IT ORDAINED by the Board of Directors of the Indian Wells Valley Water District, as follows:

SECTION 1. TITLE

This Section shall be known and may be cited as the Water Efficient Landscape Ordinance.

SECTION 2. PURPOSE AND INTENT

A. Promote the values and benefits of landscaping while recognizing the need to utilize water and other resources as efficiently as possible;

B. establish a water conservation plan to reduce water consumption in the residential and commercial landscape environment by encouraging single-family residential water conservation, and, in multi-family, commercial and manufacturing zone districts, limiting the use of turf and requiring the utilization of low water use plant materials in new projects;

C. establish provisions for water management practices and water waste prevention for new development;

D. establish a plan for designing, installing and maintaining water efficient landscapes in new projects; and

E. implement a more efficient use of water through swimming pool and water body design by the use of efficient water body management and proper recirculation of water.

SECTION 3. DEFINITIONS

Approved Plant List shall mean the list formulated by District staff and approved and/or modified by the District Board of Directors.

Drainage system shall mean a landscape or irrigation system design to drain the water to be reused on the property or to channel the water off the property.

Drip Irrigation System shall mean the use of a drip emitter system that permits no more than 5 gallons of water per hour from each emitter.

Emitter shall mean a drip irrigation component that dispenses water to plants at a predictable rate, measured in gallons or liters per hour.

Hand Watering shall mean the actual watering of landscape by a person who remains present and holds onto and directs the watering device.

Irrigation Systems shall mean appropriately designed system that utilizes water sprinklers, emitters and bubblers.

Landscape area shall mean all permeable area located on the property and land set aside exclusively for shrubs, flowers, trees, water features and other landscape material to enhance the natural beauty of an area.

Low volume irrigation systems shall mean appropriately designed irrigation systems that utilize low volume sprinklers appropriate to the climatic and site factors. Such heads include low volume sprinkler heads, drip emitters and bubbler emitters.

Low water use plants shall mean trees, shrubs and ground covers that survive with a limited amount of supplemental water as recommended by the Approved Plant List or as identified in the booklet *"Landscape Plants for the California High Desert"* published by the Indian Wells Valley Water District, Rosamond Community Services District, Palmdale Water District, City of Palmdale, Kern County Water Agency and Naval Air Weapons Station China Lake. A copy of the Approved Plant List and booklet shall be on file and available for inspection in the City Planning Department and Indian Wells Valley Water District Offices. Other plant material that is believed to be low water use may be added to the Approved Plant List by special application to the Indian Wells Valley Water District or City Planning Commission.

Recirculation shall mean the reuse of water in a pool or pond in such a way that the water would enter from one point and be reused in another portion in such a way that the water is not wasted or lost by reuse in the pool or pond.

Recycling shall mean the reuse of water in a pool or pond through a series of pumps and filters.

Runoff shall mean water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

Turf shall mean a surface layer of earth containing mowed or un-mowed grass with its roots.

SECTION 4: APPLICABILITY

All new developer, homeowner and/or commercial installed landscape projects within the boundaries of the District shall be subject to this Ordinance as well as Ordinances No. 90 and/or 91 adopted by the District Board of Directors on December 14, 2009. All water users within the boundaries of the District shall be subject to Section 9 of this Ordinance

SECTION 5: SINGLE-FAMILY RESIDENTIAL LANDSCAPE PROCEDURE

A. All new single-family residential landscape projects are subject to District Ordinance No. 90 which imposes mandatory restrictions on landscaping. All existing single-family residential landscape projects which are not subject to Ordinance No. 90 are encouraged to abide by these recommendations. Existing landscape areas larger than one acre may be audited so recommendations can be made for water savings.

B. The following is recommended for all single-family residential homes:

1. Turf landscaping should not exceed 2,000 square feet of single-family residential lots 10,000 square feet or smaller.

2. Turf landscaping should not exceed 3,000 square feet of single-family residential lots 10,001 square feet or larger.

3. Irrigation and Landscape Design. Homebuilders, developers and/or landscape contractors should provide the residential customer an irrigation design and landscape design that would, if installed, demonstrate compliance with this Ordinance. Low volume irrigation systems will be demonstrated along with low water use plant material.

4. The irrigation design needs to show proper drainage to eliminate water waste.

5. Irrigation Drainage. All irrigation water is to remain on property during normal water run cycle, such that there is minimal or limited runoff from the area being irrigated, specifically onto sidewalks and streets.

SECTION 6. MULTI-FAMILY RESIDENTIAL, COMMERCIAL, INDUSTRIAL OR INSTITUTIONAL LANDSCAPE PROCEDURE

A. All new landscape projects for multi-family residential, commercial, industrial or institutional are subject to District Ordinance No. 91.

B. The following limitations apply:

1. Turf and/or any plants not on the Approved Plant List are limited up to 50% of the landscape area.

2. Only the plants from the Approved Plant List, on file and maintained by the District, shall be used within the remaining Landscape Area.

3. The irrigation system in the remaining Landscape Area must be a Low Volume Irrigation System.

4. All of the Landscape Area shall be designed to eliminate any runoff.

5. An irrigation and landscape plan shall be submitted to the City of Ridgecrest Planning Department, containing low volume irrigation systems and low water use plants. The irrigation plan shall demonstrate drainage to eliminate water waste. The plan must provide adequate water supply such that all of the water needed can be delivered every other day within the water window of 8:00 PM – 8:00 AM during the months of May, June, July, August, September and October.

6. Irrigation Drainage. All irrigation water is to remain on property during normal water run cycle, such that there is no runoff from the area being irrigated, specifically onto sidewalks and streets.

SECTION 7. SWIMMING POOLS AND WATER BODIES

A. Public and private swimming pools and water bodies over 300 square feet shall adhere to the goal of water efficiency as set forth in this Section.

1. New swimming pools shall have a swimming pool cover.

2. New swimming pools shall have a drainage plan.

3. Water features including swimming pools must have recycling or recirculation features.

SECTION 8. APPROVED PLANT LIST

The Approved Plant List is a recommendation for existing single-family and multi-family dwellings, commercial and/or institutional development. The Approved Plant List is a requirement for new development subject to District Ordinances No. 90 and 91.

SECTION 9. MANDATORY MEASURES

The General Manager of the Indian Wells Valley Water District or designee may provide health and safety exceptions with regards to mandatory measures on a case by case basis.

A. No water user shall waste water. For the purposes of this section enforcement shall be to that degree necessary to prevent the waste of water. "Waste" means the following:

1. Landscape irrigation to an extent which allows water to runoff the area being irrigated, specifically onto sidewalks and streets creating an undue, continuous flow of water.

2. Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by use of hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device or a low-volume water broom, high-pressure cleaning machine equipped to recycle any water used. General maintenance cleaning shall be performed by other means such as by using a broom.

3. Knowingly allowing water to leak through water connections, hoses, faucets, pipes, outlets or plumbing fixtures.

4. Limits on washing vehicles: Using water to wash or clean a vehicle, including but not limited to any automobile, truck, van, bus, motorcycle, boat, motor home, or trailer, whether motorized or not is prohibited, except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device. This subsection does not apply to any commercial car washing facility that recycles water.

B. Landscape shall not be irrigated on the surface, except for hand watering and/or the use of a drip irrigation system, between the hours of 8:00 AM – 8:00 PM during the months of May, June, July, August, September and October unless a special permit is issued to accommodate newly planted material.

C. No water shall be provided to any structure hereafter constructed or remodeled unless the plumbing fixtures to be installed conform to requirements of law as to flow capacity.

SECTION 10. NOTICE AND PENALTIES

A. Upon confirmation by the District of any violation of this Ordinance, the District shall provide written notice along with educational materials to the owner of record and/or occupant. The notice shall be dated and shall specify the address, the nature of the violation, list the steps that must be taken to comply with this Ordinance and the name and telephone number of a District staff person whom additional information can be obtained. In addition, the notice shall advise the owner/occupant that termination of water service will result from continued non-compliance. These provisions are for a first violation within any consecutive twelve month period.

B. If the owner/occupant fails to comply with the requirements of the notice pursuant to Section 10.A above, within a reasonable amount of time, a second violation shall occur and a second notice containing the information specified in Section 10.A above shall be issued. The second violation shall impose a fine in an amount not to exceed Fifty Dollars ($50.00) and will be charged to and billed on the water user's account.

   If under the discretion of the District, satisfactory progress is being made on steps to correct the violation, a second notice will not be issued.

C. If the owner/occupant fails to comply with the requirements of the notice pursuant to Section 10.B above, within a reasonable amount of time, a third violation shall occur and a third notice containing the information specified in Section 10.A shall be issued. The third violation shall impose a fine in an amount not to exceed Two Hundred Dollars ($200.00) and will be charged to and billed on the water user's account.

   The third notice shall also notify the owner/occupant that water service will be terminated within thirty (30) calendar days unless the owner/occupant is in compliance with the provisions of this Ordinance. If the owner/occupant fails to comply with the provisions of this Ordinance, the final notice of service termination shall be posted at the entrance to the dwelling/property which indicates that water service shall be terminated in forty-eight (48) hours.

SECTION 11. EXTENSION

The General Manager shall have the authority to extend any deadlines by a period of time not to exceed an additional 30 days as set forth in this Ordinance.

SECTION 12. APPEAL

1. Should a property owner/occupant determined to be in violation of this Ordinance dispute the findings of staff or if said property owner/occupant believes they have sufficient justification for said violation, said property owner/occupant may request a hearing with an appropriate committee of the Board of Directors. The hearing shall be scheduled within thirty (30) calendar days of the request. The hearing shall be attended by the District's General Manager or a designated representative of the General Manager.

2. The District's General Manager or a designated representative of the General Manager shall mail the property owner/occupant a written decision within ten (10) calendar days of the hearing. If the property owner/occupant is dissatisfied with the outcome of the hearing, the property owner/occupant may request the matter be placed on the agenda of the District's Regularly Scheduled Board Meeting. The property owner/occupant may then make his or her petition to the Board of Directors. The Board's determination shall be final.

SECTION 11. ADMINISTRATIVE EXCEPTIONS

The General Manager of the District or designee may provide administrative exceptions to the landscape and irrigation plan requirements of this Ordinance on a case by case basis.

The General Manager of the District or designee will notify the City Manager of any administrative exemption granted pursuant to this Section prior to the date the exception becomes effective.

The City Manager or designee after consultation with the General Manager of Indian Wells Valley Water District may grant an administrative exception.

SECTION 12. EFFECTIVE DATE

1. The foregoing Ordinance shall become effective upon adoption of same by the Board of Directors of the Indian Wells Valley Water District.

SECTION 13. PUBLICATION

1. The Secretary is hereby directed to cause this Ordinance to be published once in full in a newspaper of general circulation, printed, published and circulated within the District.

ADOPTED this 10th day of May, 2010.

Vice-President of the Indian Wells Valley Water District Board of Directors

ATTEST

Secretary of the Indian Wells Valley Water District Board of Directors

(SEAL)

ORDINANCE 98

ORDINANCE NO. 98

ORDINANCE OF THE BOARD OF DIRECTORS OF THE INDIAN WELLS VALLEY WATER DISTRICT, KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA, RESCINDING ORDINANCE NUMBER 90 IN ITS ENTIRETY; AND REQUIRING WATER EFFICIENT LANDSCAPE AS A CONDITION OF RECEIVING NEW SINGLE FAMILY DWELLING WATER SERVICE.

WHEREAS, the Indian Wells Valley Water District (District) is a County Water District formed and operating under and pursuant to California Water District Law (California Water Code §§ 30000, *et seq.*); and

WHEREAS, pursuant to Water Code § 31001, the District is authorized to perform all acts necessary to fully carry out its functions; and

WHEREAS, pursuant to Water Code § 31035, the District may undertake a water conservation program to reduce water use and may require as a condition of new service that reasonable water saving devices and water reclamation devices be installed to reduce water use; and

WHEREAS, the Board of Directors of the District find that the water sources available to the District and all the other water users in the Indian Wells Valley is a limited resource and must be conserved to the fullest extent possible.

NOW THEREFORE, BE IT ORDAINED by the Board of Directors of the Indian Wells Valley Water District, as follows:

SECTION 1. PURPOSE

The purpose of this Ordinance is to conserve water by requiring all Front Yards of Single Family Dwellings to at all times comply with the provisions herein as a condition of receiving District water service.

SECTION 2. REPEAL, RESCISION AND AMENDMENT.

Ordinance No. 90 is hereby rescinded in its entirety.

SECTION 3. DEFINITIONS

A. "**Approved Plant List**" means the list formulated by staff and approved and/or modified by the District Board of Directors.

B. **"Front Yard"** means the Landscape Area that is between the Single Family Dwelling and any street or road, including any Landscape Area between the sidewalk and the street/road that is the responsibility of the property owner.

C. **"Landscape Area"** means all non-hardscape or non-building area located on the Front Yard.

D. "**Low Volume Irrigation System"** means appropriately designed irrigation systems that utilize low volume watering devices appropriate to the climatic and site factors including microsprinkler heads, drip emitters, and bubbler emitters.

E. **"Master Shutoff Valve"** is an automatic valve installed at the irrigation supply point which controls water flow into the irrigation system.

F. **"Runoff"** means water from irrigation that leaves the Landscape Area and flows onto sidewalks, streets, or roads.

G. **"Single Family Dwelling"** means a newly constructed single family residential dwelling or existing single family residential dwelling whose owner/occupant is making application to the District for new water service on a property where District water service did not previously exist.

H. **"Turf"** means a surface layer of earth containing mowed or unmowed living grass with its roots.

SECTION 4. RESTRICTIONS ON LANDSCAPE

A. There shall be no Turf allowed in the Landscape Area of the Front Yard.

B. Only the plants from the Approved Plant List, on file and maintained by the District, shall be used within the Landscape Area of the Front Yard.

C. The irrigation system in the Landscape Area of the Front Yard must be a Low Volume Irrigation System.

D. All irrigation devices must use high efficiency sprinkler heads.

E. All irrigation systems must have pressure regulators and master shut-off valves.

F. The Landscape Area shall be designed to eliminate any runoff.

SECTION 5. NOTICE

A. District shall record a Covenant of Landscape Restrictions on each Single Family Dwelling that is subject to this Ordinance with the Kern County Recorder as notice to each and every owner of said Single Family Dwelling of the provisions of this Ordinance.

B. Upon confirmation by the District of any violation of this Ordinance, the District shall provide written notice along with educational materials to the owner of record of the Single Family Dwelling and the occupant of the Single Family Dwelling. The notice shall be dated and shall specify the address of the Single Family Dwelling, the nature of the violation, list the steps that must be taken to comply with this Ordinance and the name and telephone number of a District staff person from whom additional information can be obtained. In addition, the notice shall advise the owner/occupant that termination of water service will result from continued non-compliance. These provisions are for a first violation within any consecutive twelve month period.

C. If the owner/occupant fails to comply with the requirements of the notice pursuant to Section 5(A) above, within thirty (30) calendar days, a second violation shall occur and a second notice containing the information specified in Section 5(B) above shall be issued. The second violation shall impose a fine in an amount not to exceed Fifty Dollars ($50.00) and will be charged to and billed on the water user's account.

If, under the discretion of the District, satisfactory progress is being made on steps to correct the violation, a second notice will not be issued.

D. If the owner/occupant fails to comply with the requirements of the notice pursuant to Section 5(C) above, within thirty (30) calendar days, a third violation shall occur and a third notice containing the information specified in Section 5(B) above shall be issued. The third violation shall impose a fine in an amount not to exceed Two Hundred Dollars ($200.00) and will be charged to and billed on the water user's account.

The third notice shall also notify the owner/occupant that water service will be terminated in thirty (30) calendar days unless the Single Family Dwelling is in compliance with the provisions of this Ordinance. If the owner/occupant fails to comply with the provisions of this Ordinance, the final notice of service termination shall be posted at the entrance to the Single Family Dwelling which indicates that water service shall be terminated in forty-eight (48) hours.

SECTION 6. EXTENSION

A. The General Manager shall have the authority to extend any deadlines by a period of time not to exceed an additional 30 days as set forth in this Ordinance.

SECTION 7. APPEAL

A. Should a property owner/occupant of a Single Family Dwelling determined to be in violation of this Ordinance dispute the findings of staff, said property owner/occupant may request a hearing with an appropriate committee of the Board of Directors. The hearing shall be scheduled within thirty (30) calendar days of the request. The hearing shall be attended by the District's General Manager or a designated representative of the General Manager.

B. The District's General Manager or a designated representative of the General Manager shall mail the property owner/occupant a written decision within ten (10) calendar days of the hearing. If the property owner/occupant is dissatisfied with the outcome of the hearing, the property owner/occupant may request the matter be placed on the agenda of the District's Regularly Scheduled Board Meeting. The property owner may then make his or her petition to the Board of Directors. The Board's determination shall be final.

SECTION 8. EFFECTIVE DATE

A. The foregoing Ordinance shall become effective on December 1, 2015 upon adoption of same by the Board of Directors of the District.

SECTION 9. PUBLICATION

A. The Secretary is hereby directed to cause this Ordinance to be published once in full in a newspaper of general circulation, printed, published and circulated within the District.

ADOPTED this 14th day of December, 2015.

Leroy Lorkett

President of the Indian Wells Valley
Water District Board of Directors

ATTEST

Secretary of the Indian Wells Valley
Water district Board of Directors

(SEAL)

ORDINANCE 99

ORDINANCE NO. 99

ORDINANCE OF THE BOARD OF DIRECTORS OF THE INDIAN WELLS VALLEY WATER DISTRICT, KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA, RESCINDING ORDINANCE NUMBER 91 IN ITS ENTIRETY; AND REQUIRING WATER EFFICIENT LANDSCAPE AS A CONDITION OF RECEIVING NEW MULTI-FAMILY DWELLINGS, COMMERCIAL AND/OR INSTITUTIONAL WATER SERVICE.

WHEREAS, the Indian Wells Valley Water District (District) is a County Water District formed and operating under and pursuant to California Water District Law (California Water Code §§ 30000, *et seq.*); and

WHEREAS, pursuant to Water Code § 31001, the District is authorized to perform all acts necessary to fully carry out its functions; and

WHEREAS, pursuant to Water Code § 31035, the District may undertake a water conservation program to reduce water use and may require as a condition of new service that reasonable water saving devices and water reclamation devices be installed to reduce water use; and

WHEREAS, the Board of Directors of the District find that the water sources available to the District and all the other water users in the Indian Wells Valley is a limited resource and must be conserved to the fullest extent possible.

NOW THEREFORE, BE IT ORDAINED by the Board of Directors of the Indian Wells Valley Water District, as follows:

SECTION 1. PURPOSE

The purpose of this Ordinance is to conserve water by requiring all Landscape Areas of Multi-Family Dwellings, Commercial and/or Institutional buildings/facilities to at all times comply with the provisions herein as a condition of receiving District water service.

SECTION 2. REPEAL, RESCISION AND AMENDMENT.

Ordinance No. 91 is hereby rescinded in its entirety.

SECTION 3. DEFINITIONS

A. "**Approved Plant List**" means the list formulated by staff and approved and/or modified by the District Board of Directors.

B. **"Landscape Area"** means all non-hardscape or non-building area.

C. **"Low Volume Irrigation System"** means appropriately designed irrigation systems that utilize low volume watering devices appropriate to the climatic and site factors including microsprinkler heads, drip emitters, and bubbler emitters.

D. **"Master Shut-off Valve"** is an automatic valve installed at the irrigation supply point which controls water flow into the irrigation system. When this valve is closed water will not be supplied to the irrigation system.

E. **"Multi-Family Dwellings, Commercial and/or Institutional"** means a newly constructed or existing multi-family residential dwelling, commercial and/or institutional building/facility whose owner/occupant is making application to the District for new water service on a property where District water service did not previously exist (collectively referred to herein as "Multi-Family Dwelling").

F. **"Plant Factor"** or "plant water use factor" is a factor, when multiplied by evapotranspiration (ETo), estimates the amount of water needed by plants.

G. **"Runoff"** means water from irrigation that leaves the Landscape Area and flows onto sidewalks, streets, or roads.

F. **"Turf"** means a surface layer of earth containing mowed or unmowed living grass with its roots.

SECTION 4. RESTRICTIONS ON LANDSCAPE

A. Turf and/or any plants not on the Approved List are limited up to 50% of the Landscape Area.

B. High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians.

C. Only the plants from the Approved Plant List, on file and maintained by the District, shall be used within the remaining Landscape Area.

D. The irrigation system in the remaining Landscape Area must be a Low Volume Irrigation System.

E. All irrigation devices must use high efficiency sprinkler heads.

F. All irrigation systems must have pressure regulators and master shut-off valves.

G. All of the Landscape Area shall be designed to eliminate any runoff.

H. Areas less than 10 feet wide must be irrigated with subsurface drip or other technology that produces no over spray or runoff.

SECTION 5. NOTICE

A. District shall record a Covenant of Landscape Restrictions on each Multi-Family Dwelling that is subject to this Ordinance with the Kern County Recorder as notice to each and every owner of said Multi-Family Dwelling of the provisions of this Ordinance.

B. Upon confirmation by the District of any violation of this Ordinance, the District shall provide written notice along with educational materials to the owner of record of the Multi-Family Dwelling and the occupant of the Multi-Family Dwelling. The notice shall be dated and shall specify the address of the Multi-Family Dwelling, the nature of the violation, list the steps that must be taken to comply with this Ordinance and the name and telephone number of a District staff person from whom additional information can be obtained. In addition, the notice shall advise the owner/occupant that termination of water service will result from continued non-compliance. These provisions are for a first violation within any consecutive twelve month period.

C. If the owner/occupant fails to comply with the requirements of the notice pursuant to Section 5(A) above, within thirty (30) calendar days, a second violation shall occur and a second notice containing the information specified in Section 5(B) above shall be issued. The second violation shall impose a fine in an amount not to exceed Fifty Dollars ($50.00) and will be charged to and billed on the water user's account.

If, under the discretion of the District, satisfactory progress is being made on steps to correct the violation, a second notice will not be issued.

D. If the owner/occupant fails to comply with the requirements of the notice pursuant to Section 5(C) above, within thirty (30) calendar days, a third violation shall occur and a third notice containing the information specified in Section 5(B) above shall be issued. The third violation shall impose a fine in an amount not to exceed Two Hundred Dollars ($200.00) and will be charged to and billed on the water user's account.

The third notice shall also notify the owner/occupant that water service will be terminated in thirty (30) calendar days unless the Multi-Family Dwelling is in compliance with the provisions of this Ordinance. If the owner/occupant fails to comply with the provisions of this Ordinance, the final notice of service termination shall be posted at the entrance to the Multi-Family Dwelling which indicates that water service shall be terminated in forty-eight (48) hours.

SECTION 6. EXTENSION

A. The General Manager shall have the authority to extend any deadlines by a period of time not to exceed an additional 30 days as set forth in this Ordinance.

SECTION 7. APPEAL

A. Should a property owner/occupant of a Multi-Family Dwelling determined to be in violation of this Ordinance dispute the findings of staff, said property owner/occupant may request a hearing with an appropriate committee of the Board of Directors. The hearing shall be scheduled within thirty (30) calendar days of the request. The hearing shall be attended by the District's General Manager or a designated representative of the General Manager.

B. The District's General Manager or a designated representative of the General Manager shall mail the property owner/occupant a written decision within ten (10) calendar days of the hearing. If the property owner/occupant is dissatisfied with the outcome of the hearing, the property owner/occupant may request the matter be placed on the agenda of the District's Regularly Scheduled Board Meeting. The property owner may then make his or her petition to the Board of Directors. The Board's determination shall be final.

SECTION 8. EFFECTIVE DATE

A. The foregoing Ordinance shall become effective on December 1, 2015 upon adoption of same by the Board of Directors of the District.

SECTION 9. PUBLICATION

A. The Secretary is hereby directed to cause this Ordinance to be published once in full in a newspaper of general circulation, printed, published and circulated within the District.

ADOPTED this 14th day of December, 2015.

Leron Corbett
President of the Indian Wells Valley
Water District Board of Directors

ATTEST

Secretary of the Indian Wells Valley
Water district Board of Directors

(SEAL)

ORDINANCE 100

ORDINANCE NO. 100

ORDINANCE OF THE BOARD OF DIRECTORS OF THE INDIAN WELLS VALLEY WATER DISTRICT, KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA, RESCINDING ORDINANCE NUMBER 97 IN ITS ENTIRETY AND ADOPTING EMERGENCY WATER CONSERVATION MANDATORY RESTRICTIONS

WHEREAS, the Indian Wells Valley Water District (District) is a County Water District formed and operating under and pursuant to California Water District Law (California Water Code §§ 30000 *et seq.*); and

WHEREAS, pursuant to Water Code § 31001, the District is authorized to perform all acts necessary to fully carry out its functions; and

WHEREAS, pursuant to Water Code § 31026, the District may restrict the use of district water during any emergency caused by drought, or other threatened or existing water shortage, and to prohibit the wastage of district water or the use of district water during such periods, for any purpose other than household uses or such other restricted uses as may be determined to be necessary by the district and may prohibit use of such water during such periods for specific uses which the district may from time to time find to be nonessential;

WHEREAS, the Board of Directors of the District find that the water sources available to the District and all the other water users in the Indian Wells Valley is a limited resource and must be conserved to the fullest extent possible;

WHEREAS, the State Water Resources Control Board adopted emergency regulations to safeguard the state's remaining water supplies by imposing mandatory water restrictions more stringent than those of the District's Ordinance No. 93;

WHEREAS, this Ordinance will supersede Ordinance No. 93 until rescinded by the District's Board of Directors.

NOW THEREFORE, BE IT ORDAINED by the Board of Directors of the Indian Wells Valley Water District, as follows:

SECTION 1. TITLE

This Section shall be known and may be cited as the Emergency Water Conservation Regulation.

SECTION 2. PURPOSE AND INTENT

A. Establish a drought water conservation plan to reduce water consumption in residential, commercial, public and industrial landscape, and the hotel/motel, and restaurant industry; and

B. implement a more efficient use of water.

SECTION 3. REPEAL, RECISSION AND AMENDMENT

Ordinance 97 is hereby rescinded in its entirety.

SECTION 4. DEFINITIONS

Drip Irrigation System shall mean the use of a drip emitter system that permits no more than 5 gallons of water per hour from each emitter.

Hand Watering shall mean the actual watering of landscape by a person who remains present and holds onto and directs the watering device.

Irrigation System shall mean an irrigation system that utilizes water sprinklers, emitters and/or bubblers.

Recirculation shall mean the reuse of water in a pool or pond in such a way that the water would enter from one point and be reused in another portion in such a way that the water is not wasted or lost by reuse in the pool or pond.

Runoff shall mean water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

Landscape Area means all non-hardscape or non-building area on the property.

Turf shall mean a surface layer of earth containing mowed or un-mowed grass with its roots.

SECTION 5. MANDATORY RESTRICTIONS

A. No water user shall waste water. For the purposes of this section "waste" includes the following and is prohibited:

1. Landscape irrigation to an extent which allows water to runoff the Landscape Area being irrigated, specifically onto sidewalks and streets creating an undue, continuous flow of water.

2. Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by use of hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device or a low-volume water broom, high-pressure cleaning machine equipped to recycle any water used. General maintenance cleaning shall be performed by other means such as by using a broom.

3. Knowingly allowing water to leak through water connections, hoses, faucets, pipes, outlets or plumbing fixtures.

4. Limits on washing vehicles: Using water to wash or clean a vehicle, including but not limited to any automobile, truck, van, bus, motorcycle, boat, motor home, or trailer, whether motorized or not is prohibited, except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device. This subsection does not apply to any commercial car washing facility that recycles water.

B. **During the months of April, May, June, July, August, September and October**, all customers of the District (residential/commercial/public/industrial) with even-numbered addresses may only operate irrigation systems on Tuesday, Thursday and Saturday and odd numbered addresses may only operate irrigation systems on Wednesday, Friday and Sunday. Irrigation systems may not be operated on Mondays. Landscape Areas shall not be irrigated on the surface, except for hand watering and/or the use of a drip irrigation system, between the hours of 8:00 AM – 8:00 PM, unless a special permit is issued to accommodate newly planted material.

During the months of November, December, January and February, all customers of the District (residential/commercial/public/industrial) with even-numbered addresses may only operate irrigation systems on Saturday and odd numbered addresses may only operate irrigation systems on Sunday. Irrigation systems may not be operated on

Mondays, Tuesdays, Wednesdays, Thursdays or Fridays. There will be no daytime watering restriction during these months.

C. Turf or ornamental landscapes shall not be irrigated during the 48 hours following measurable precipitation.

D. Restaurants and other food service establishments shall only serve water to customers on their request.

E. Operators of hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily and prominently display notice of this option.

F. Operating a fountain or decorative water feature is prohibited, unless the water is part of a recirculating system.

G. No water service shall be provided to any structure hereafter constructed or remodeled unless the plumbing fixtures to be installed conform to requirements of law as to flow capacity.

The General Manager of the Indian Wells Valley Water District or designee may provide health and safety exceptions with regards to mandatory measures on a case by case basis.

SECTION 6. NOTICE AND PENALTIES

A. Upon confirmation by the District of any violation of this Ordinance, the District shall provide written notice (warning) to the owner of record, and/or occupant and/or property manager (owner/occupant/manager). The notice shall be dated and shall specify the address, the nature of the violation, list the steps that must be taken to comply with this Ordinance and the name and telephone number of a District staff person from whom additional information can be obtained. In addition, the notice shall advise the owner/occupant/manager that termination of water service may result from continued non-compliance. These provisions are for a first violation of the provisions of this Ordinance 100 by the owner/occupant/manager.

1. Once a warning has been issued to any owner/occupant/manager, they shall be considered duly informed of the District's Mandatory Restrictions pursuant to this Ordinance 100 and any future violations shall be subject to Sections 6.B through E below.

B. If the owner/occupant/manager fails to comply with the requirements of the notice given pursuant to Section 6.A above, within a reasonable amount of time but not less than two weeks, a second violation shall occur and the District shall provide a second written notice to the owner/occupant/manager. The notice shall be dated and shall specify the address, the nature of the violation, list the steps that must be taken to comply with this Ordinance, how to obtain educational water conservation materials electronically, and the name and telephone number of a District staff person that can provide additional information including hard copies of educational water conservation materials. In addition, the notice shall advise the owner/occupant/manager that a monetary fine in the amount of Fifty Dollars ($50.00) shall be imposed for a third violation of this Ordinance and that termination of water service may result from continued non-compliance.

C. If the owner/occupant/manager fails to comply with the requirements of the notice given pursuant to Section 6.B above, within a reasonable amount of time but not less than two weeks, a third violation shall occur and a third notice containing the date, the address, the nature of the violation and the steps that must be taken to comply with this Ordinance shall be issued. The third notice shall further advise the owner/occupant/manager that a fine in the amount of Two Hundred Dollars ($200.00) shall be imposed for fourth violation of this Ordinance and that termination of water service may result from continued non-compliance. The third violation shall impose a Fifty Dollar ($50.00) fine charged to and billed on the water user's account. This fine shall be subject to the District's Delinquent Charges section as described in the current Water Sales and Service Policy Manual.

   If, in the sole discretion of the District, satisfactory progress is being made on steps to correct the violation, a third notice will not be issued.

D. If the owner/occupant/manager fails to comply with the requirements of the notice given pursuant to Section 6.C above, within a reasonable amount of time but not less than two weeks, a fourth violation shall occur and a fourth notice containing the date, the address, the nature of the violation and the steps that must be taken to comply with this Ordinance shall be issued. The fourth violation shall impose a Two Hundred Dollar ($200.00) fine charged to and billed on the water user's account on a monthly basis until the violation(s) ceases. This fine shall be subject to the District's Delinquent Charges section as described in the current Water Sales and Service Policy Manual.

E. If the owner/occupant/manager fails to comply with the requirements of the notice given pursuant to Section 6.D above resulting in repeated and significant water loss as determined by the District, the District may terminate water service within ten (10) calendar days unless the owner/occupant/manager is in compliance with the provisions of

this Ordinance. If the owner/occupant/manager fails to comply with the provisions of this Ordinance, the final notice of service termination, subject to the District's current 48-Hour Notice of Termination charge, shall be posted at the entrance to the dwelling/property stating that water service shall be terminated in forty-eight (48) hours

Service may only be restored if the violation has been corrected. Owner/occupant/manager will be required to pay all fines and penalties previously assessed pursuant to this Ordinance plus a Service Reinstatement Charge per the Customer Service Charges section as described in the current Water Sales and Service Policy Manual.

SECTION 7. EXTENSION

The General Manager shall have the authority to extend any deadlines by a period of time not to exceed an additional 30 days as set forth in this Ordinance.

SECTION 8. APPEAL

1. Should an owner/occupant/manager determined to be in violation of this Ordinance dispute the findings of staff or if said owner/occupant/manager believes they have sufficient justification for said violation, said owner/occupant/manager may request a hearing with an appropriate committee of the Board of Directors. The hearing shall be scheduled within thirty (30) calendar days of the request. The hearing shall be attended by the District's General Manager or a designated representative of the General Manager.

2. The District's General Manager or a designated representative of the General Manager shall mail the owner/occupant/manager a written decision within ten (10) calendar days of the hearing. If the owner/occupant/manager is dissatisfied with the outcome of the hearing, the owner/occupant/manager may request the matter be placed on the agenda of the District's Regularly Scheduled Board Meeting. The owner/occupant/manager may then make his or her petition to the Board of Directors. The Board's determination shall be final.

SECTION 9. ADMINISTRATIVE EXCEPTIONS

The General Manager of the District or designee may provide administrative exceptions to the landscape and irrigation plan requirements of this Ordinance on a case by case basis.

The General Manager of the District or designee will notify the City Manager of any administrative exemption granted pursuant to this Section prior to the date the exception becomes effective.

The City Manager or designee after consultation with and approval from the General Manager of Indian Wells Valley Water District may grant an administrative exception.

SECTION 10. EFFECTIVE DATE

1. The foregoing Ordinance shall become effective upon adoption of same by the Board of Directors of the Indian Wells Valley Water District.

SECTION 11. PUBLICATION

1. The Secretary is hereby directed to cause this Ordinance to be published once in full in a newspaper of general circulation, printed, published and circulated within the District within ten (10) days after adoption.

All the foregoing being on the motion of Vice-President Brown seconded by Director Corlett, and authorized by the following vote, namely:

AYES:	President Cortichiato Vice-President Brown Director Cordell Director Corlett
NOES:	Director Griffin
ABSENT:	None.
ABSTAIN:	None.

I HEREBY CERTIFY that all the foregoing ordinance is the ordinance of the Indian Wells Valley Water District as duly passed and adopted by said Board of Directors at a legally convened meeting held on the 11th day of January, 2016.

WITNESS my hand and the official seal of said Board of Directors this 11th day of January, 2016.

President of the Indian Wells Valley Water District Board of Directors

ATTEST

Secretary of the Indian Wells Valley Water District Board of Directors

(SEAL)

APPENDIX L

INDIAN WELLS VALLEY WATER DISTRICT
WATER SUPPLY ENHANCEMENT GENERAL PLAN

INDIAN WELLS VALLEY WATER DISTRICT
WATER SUPPLY ENHANCEMENT GENERAL PLAN

The Indian Wells Valley Water District (District) is a County Water District serving approximately thirty thousand (30,000) people in and around the Ridgecrest, California area. The District has but a single source of supply, the local ground water aquifer underlying the Indian Wells Valley (Valley). Demands for groundwater have increased and have exceeded the natural recharge to the ground water basin. As a result, areas of the Indian Wells Valley have experienced water levels that exhibit a downward trend through time without recovery. To address concerns arising from decline of the Valley's ground water levels, the District has developed this Water Supply Enhancement Plan (Plan). This Plan is intended to assist the District in addressing not just the present needs, but also future needs.

In the evaluation of any portion of this Plan, which addresses issues of area wide concern, the District will, in addition to being mindful of environmental concerns, be mindful of concerns expressed by others, including those who may wish to collaborate with the District regarding portions of this Plan. The District encourages collaborative efforts.

The goals of this Plan are:

- to further the District's ongoing efforts to optimize use of the existing water supply (Valley ground water), and
- to evaluate the feasibility of obtaining or developing one or more supplemental water supplies for potential future use.

This Plan will be implemented through various studies to determine the costs of exploration, development, and operation of optimization alternatives, and potential supplemental supplies, as well as their dependability, quantity, and quality. These studies may include:

1. Optimizing Use of the Existing Ground Water Supply: The District intends to continue and to enhance the following ongoing efforts, each of which has already contributed to the District's efficiency in producing and delivering water to meet local demands. As a result of the District's conservation efforts, the average annual water consumption for connections within the District has decreased from approximately .84 acre feet per year (afy) in the 1980's to approximately .72 afy in 2002.

    - Conservation based rate structure: The District has, since 1982, developed and utilized an ascending block water rate structure. This rate structure provides for higher water rates when higher water usage occurs, and is intended to encourage water conservation.

- Conservation education: The District will continue to provide, educational services to inform the public about the need for water conservation and how to use water more efficiently. These educational services are provided via school programs, presentations to various organizations, demonstration gardens, public service announcements, and the District's newsletter.

- Conservation measures: The District is committed to implementing water conservation and recycling programs and has adopted various "Best Management Practices." These conservation practices include water surveys, plumbing retrofits, water audits/leak detection, system repairs, landscape conservation assistance, public information programs, detailed accounting of water usage, and cooperation with the City of Ridgecrest. In addition, the District has a part-time conservation coordinator.

- Conservation regulations: The District has adopted its own conservation ordinance.

2. Developing Supplemental Water Supplies: The District intends to identify and evaluate potential supplemental water supplies from within the Valley as well as from outside the Valley as follows:

- Inside the Indian Wells Valley: The District will continue to consider potential alternative sources of supplemental water from within the Valley. By making efficient use of such potential alternative sources, the District can minimize the possibility of a future requirement to import water.

    - Galleries: The District will consider the construction of galleries within the foothills of the surrounding mountain ranges which may allow the District to capture and utilize more of the Valley's recharge.

    - Ground Water Blending: The District has considered, and will continue to consider, the blending of poorer quality ground water with good quality ground water in order to extend the useful life of the ground water aquifer and avoid or minimize treatment costs. While this blending process will not "increase" the total quantity of ground water available, it will extend the useful life of the ground water presently available within the Valley.

    - Ground Water Treatment: The District has considered, and will continue to consider, the treatment of poorer quality ground water in order to extend the useful life of the local ground water aquifer. The treatment of such water will require the construction of one or more water treatment plants. Treatment of poorer quality ground water will increase the useful life of the ground water aquifer, and such treated water could be blended with poorer quality ground water.

- Rainfall augmentation: The District will consider augmenting rainfall within the Valley by commercial means such as cloud seeding.

- Reclaimed or recycled water: The District has the legal authority to accept, treat, and deliver wastewater effluent as recycled water. The District does not however, at this time, have access to wastewater effluent for recycling. Such water is currently under the jurisdiction of the City of Ridgecrest. Presently, all treated wastewater is being utilized by and through the City of Ridgecrest.

- Undeveloped source areas: The District will continue in its efforts to gain information and knowledge regarding the groundwater underlying the Indian Wells Valley. To the extent undeveloped water sources exist and are identified, the District will consider the development of such areas for additional water.

- Outside the Indian Wells Valley: The District will continue to consider potential sources of supplemental water from outside the Valley. The District's goal is to identify/acquire up to 10,000 acre-feet of potential supplemental water supplies from outside the valley.

  - County and local: Occasionally, the District receives information, which indicates supplemental water may be available on a relatively local basis. The District will continue to consider potential available supplemental water supplies with county and local sources.

  - Federal: To date, no water has yet been made available through federal programs, but if and when such water becomes available, the District will consider it as a possible supplemental source and, when necessary, will seek assistance from appropriate federal agencies and legislators.

  - State: The District continues to consider water made available from the State Water Project and, when necessary, will seek assistance from appropriate state agencies and legislators.

  - Public: The District will continue to consider potential available supplemental water supplies with entities in the public sector.

  - Private: The District will continue to consider potential available supplemental water supplies with entities in the private sector.

3. Site selection and source evaluation in analyzing supplemental water supplies: While not all-inclusive, the following are some of the factors that may be considered in any site and source evaluation.

- Future availability of water: The District will consider whether or not availability of water from a particular location would remain reliable over the long term.

- Hydrogeology evaluation: The District will consider such things as water quality, quantity, and extractability.

- Income producing property: The District will consider whether or not the property is, or has the ability to produce income.

- Proximity to conveyance facilities: The District will consider the location of any water conveyance facilities that may be necessary or useful.

- Proximity to power sources: The District will consider the location of power sources available to operate the well and any of its appurtenances.

- Resale of property in whole or in part: The District will consider whether or not the selected property could be sold in the future.

- Site and source availability: The District will consider whether a currently available site or source would reasonably be expected to remain available in the future.

- Well locations: The District will consider the location of any existing well and/or well(s) to be constructed and the location of the property. The District will also consider the proximity of the well(s) to other well locations, and will consider other factors which may have an effect on the well or surrounding wells.

4. Water characteristics: In evaluating any potential supplemental water supply source, factors such as quality, quantity, and any necessary treatment requirements must be considered.

   - Quality and quantity: The District has not predetermined its requirements for quality and quantity, but shall consider quality and quantity of available water in conjunction with all other pertinent factors.

   - Treatment requirements: The District will consider any requirements to treat the supplemental water source. Typically, surface water supplies must be treated prior to domestic use. Currently, good quality groundwater supplies typically do not require treatment unless the method of transportation creates the necessity for treatment.

5. Working with local communities: In evaluating a supplemental water supply source, the District shall be cognizant of the local needs of the community involved. While not all needs can be identified at present, the District intends to work closely with any community in which a possible supplemental source is located.

- Investigating local needs: The District intends to work closely with the local community(s) in an effort to determine local needs with respect to water supplies. By acknowledging the local needs, the District can best assess its role for maintaining or improving the well-being of the community involved.

- Keeping local constituencies informed: The District intends to timely advise appropriate local agencies and interested persons of the nature and extent of any aquifer testing program which it intends to conduct.

- Local collaborative planning: The District presently is involved in local collaborative planning issues, particularly with respect to water. The District will continue its involvement in such planning efforts and will expand its planning activities to include other interested parties, depending upon the nature and location of the supplemental water source under consideration.

- Local property taxes: In working with local communities, the District will consider, on a case-by-case basis, whether or not an acquired property should remain on the tax rolls of any existing taxing authority. In some circumstances, it may be appropriate to maintain such real property upon the local tax rolls.

- Sharing of test results: The District intends to advise appropriate local agencies and interested persons of the results of any aquifer testing program which it has conducted.

6. Institutional considerations: The District is aware that many supplemental water supplies will require permitting and/or other approvals.

   - Federal, State, local concerns: The District intends to address federal, state, and local issues of concern in a reasonable and appropriate manner.

   - Permitting: Permits may be required to construct wells, conduct testing or perform other activities. The District intends to comply with all necessary permitting requirements.

7. Conveyance and storage requirements: In any analysis of a potential supplemental water supply, the District will consider facilities that may be necessary or required in order to transport water to and/or within the District.

   - Existing (aqueduct): The Los Angeles Aqueduct (owned and operated by the City of Los Angeles) traverses the westerly boundary of the Indian Wells Valley. The aqueduct would be considered the most favored method of transporting water to the District from outside the Valley. Prior to the utilization of the aqueduct for transportation,

negotiations with the Los Angeles Department of Water and Power would be necessary.

- Ground water banking: An additional possible source of supply might be created through a ground water banking program. Ground water banking may be employed to store water for District use as well as for use by other possible entities. In the event a banking program is established, facilities will be required to both recharge (deposit) and extract (withdraw) water.

- New (pipelines): Depending upon the source and location of a supplemental supply, additional transportation facilities may be necessary.

- Power generation: Depending upon the nature of the supplemental water source, the method used to transport the water, and the schedule for receiving the water, it may be possible to generate hydroelectric power. Electrical power generated by the facility could be used by the District or sold to others.

8. Environmental considerations: Although this document is only a feasibility/planning document, the District will consider and be mindful of environmental factors in the adoption of this plan, and in the implementation of any portion of this plan.

- Environmental Regulations: The District will comply with the California Environmental Quality Act (CEQA) and other environmental rules and regulations, to the extent they apply, when performing any new project that may be undertaken by the District. Some projects or actions by the District may, on a case-by-case basis, be deemed exempt. Other projects may require environmental review, analysis, and documentation.

- Groundwater levels: The District, as a general rule when performing aquifer tests, will monitor certain groundwater conditions, as available or as otherwise deemed appropriate by the District.

- Local economic environment: The District will be mindful of the economic environment of any local area in which the District investigates a potential supplemental water supply. Consideration will be given to protection and the possible enhancement of the local economic environment.

- Social and non-economic environment: The District intends to, at all times, be mindful of the social and non-economic environment of any local area in which the District investigates a potential supplemental water supply. Consideration will be given to protection and the possible enhancement of such environment.

9. Cost comparison and alternatives: The District intends to determine and identify the most beneficial cost effective long term supplemental water supply alternative(s) available. Cost-sharing proposals will be considered as appropriate.

- Capital cost considerations: The District will consider the probable capital costs associated with each analyzed alternative source, including acquisition, development, and construction costs of the necessary facilities for delivery, treatment, and storage.

- Operating cost considerations: The District will consider operating costs associated with the source, and the ancillary operating costs associated with delivery, treatment, and storage.

10. Financing: In all supplemental water supply scenarios, the District will be required to fund the acquisition and operating costs associated with any chosen supply. Therefore, financing alternatives will be considered. The District will encourage collaborative efforts.

- Bonds: In some scenarios, the District may determine that the most advantageous financing mechanism for the capital component(s) of a particular alternative supply is through the issuance of bonds. An analysis of bond funding would necessarily be made after a particular supplemental supply is chosen, and would be based upon the then-current economic and financial conditions.

- Cash: In some supplemental water supply scenarios, the District may be able to fund the capital costs through its then-adopted and approved budget. Additionally, the District must fund, under each scenario, the operation and maintenance costs of the facilities through its annual revenues.

- Grants: To the extent that grants are available to fund, in whole or in part, any capital or operating component associated with a particular supplemental supply, or to fund an investigation or study of a particular source of supply, the acquisition of such grant funding would be a preferred alternative, depending upon grant conditions and availability at the time of the project.

- Loans: In some scenarios, the District may determine that the most advantageous financing mechanism for the capital component(s) of a particular supplemental supply is through the acquisition of loans. An analysis of loan funding would necessarily be made after a particular supplemental supply is chosen, and would be based upon the then-current financial conditions and loan availability.

11. Historic efforts: The District has historically been involved in numerous activities regarding water issues at both the state and local levels.

- Participating in Indian Wells Valley Cooperative Groundwater Management Group: The District has consistently participated in water planning, studies, and conservation efforts. For example, the District presently participates in local cooperative groundwater management meetings in an effort to cooperate with others in the area with regard to the Valley's water resources.

- The District also has participated and assisted in the funding of numerous water studies and is involved in various ways with statewide water organizations such as the Association of California Water Agencies and others. The District intends to continue in these efforts in both the short term and the long term.

This Plan is not intended to require the District to undertake any specified water supply enhancement activities described herein. This Plan may also be modified as new information becomes available or conditions change.

APPENDIX M

RESOLUTION TO DECLARE A WATER SHORTAGE EMERGENCY (DRAFT)
MORATORIUM ON NEW CONNECTIONS DURING A WATER SHORTAGE (DRAFT)

RESOLUTION TO DECLARE A WATER SHORTAGE EMERGENCY (DRAFT)

INDIAN WELLS VALLEY WATER DISTRICT
KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA

[Date]

The District Board of Directors of the Indian Wells Valley Water District does hereby resolve as follows:

PURSUANT to California Water code Section 350 *et seq*, the Board has conducted duly noticed public hearings to establish the criteria under which a water shortage emergency may be declared.

WHEREAS, the Board finds, determines, and declares as follows:

(a) The District is the water purveyor for the property owners and inhabitants of portions of Kern and San Bernardino Counties;
(b) The demand for water service is not expected to lessen;
(c) When the total combined quantities of water supply available to the District from all sources falls at or below the Stage 3 triggering levels described in the 2010 Urban Water Management Plan, the District will declare a water shortage emergency. The water supply would not be adequate to meet the ordinary demands and requirements of water consumers without depleting the District's water supply to the extent that there may be insufficient water for human consumption, sanitation, fire protection, and environmental requirements. This condition is likely to exist until precipitation and inflow dramatically increase or until water system damage resulting from a disaster are repaired and normal water service is restored.

NOW, THEREFORE, BE IT RESOLVED that the District Board of Directors of the Indian Wells Valley Water District hereby directs the General Manager to find, determine, declare, and conclude that a water shortage emergency condition exists that threatens the adequacy of water

supply, until the District's water supply is deemed adequate. After the declaration of a water shortage emergency, the General Manager is directed to determine the appropriate Rationing Stage and implement the District's Water Shortage Emergency Response.

FURTHERMORE, the Board shall periodically conduct proceedings to determine additional restrictions and regulations which may be necessary to safeguard the adequacy of the water supply for domestic, sanitation, fire protection, and environmental requirements.

DRAFT MORATORIUM ON NEW CONNECTIONS DURING A WATER SHORTAGE

INDIAN WELLS VALLEY WATER DISTRICT
KERN AND SAN BERNARDINO COUNTIES, CALIFORNIA

[Date]

The District Board of Directors of the Indian Wells Valley Water District does hereby resolve as follows:

The Municipal Code of the Indian Wells Valley Water District is hereby amended to read as follows:

XX-1 MORATORIUM ON SERVICE COMMITMENTS AND CONNECTIONS

1. When the District declares a water shortage emergency, the following regulations shall become effective immediately and shall continue in full force and effect to prohibit the following while it remains in full force and effect:

    a. The District shall not issue oral or written commitments to provide new or expanded water service, including will-serve letters.
    b. The District shall not sell meters for water service connections, despite the prior issuance of will-serve letters or other oral or written service commitments, unless building permits have been issued.
    c. The District shall not provide new or expanded water service connections, despite the prior issuance of will-serve letters, oral commitments, or other written service commitments and meters, unless building permits have been issued.
    d. The District shall not provide water for use on any new plantings installed after the declaration of a water shortage emergency.
    e. The District shall not annex territory located outside the District's service area boundary.

2. The following uses are exempt from the moratorium and upon application to the District shall receive necessary water service commitments and connections to receive water from the District:

   a. Uses, including but not limited to, commercial, industrial, single family and multifamily residential, and low-income single and multifamily residential, for which a building permit has been issued on or before the declaration of a water shortage emergency.
   b. Uses, including but not limited to, commercial, industrial, single family and multifamily residential, and low-income single family and multifamily residential, for which a retail meter had been purchased from the District before the declaration of a water shortage emergency, as evidenced by a written receipt and for which a building permit has been issued and remains in full force and effect.
   c. Publicly owned and operated facilities, including but not limited to, schools, fire stations, police stations, hospitals, and other facilities as necessary to protect the public health, safety, and welfare.

Water Shortage Contingencies Customer Allotments and Appeals Procedures

The following is the Indian Wells Valley Water District's (District's) rationing allocation method (arranged by customer type and stage) and the appeals procedure. It should be noted that thte allotment figures indicated in Stages 3 and 4 are given in terms of hundred cubic feet (ccf), which is the standard measurement for water deliveries and is indicated on the District's water bills and water meters. One ccf is equivalent to 748 gallons of water. The minimum water allotment for residential customers is based on a minimum quantity that is required for health and safety needs (e.g. drinking, personal hygiene). The District has established said minimum quantity as 68 gallons per capita per day (gpcd).

Stage 1: Minimal Shortage (25 to 40 percent)

Stage 2: Moderate Shortage (41 to 50 percent)

In the event that a minimal or moderate water shortage occurs, the District will implement the voluntary measures outlined below:

1. All customers will be notified of the water shortage.

2. Information will be mailed to every customer, which will explain the importance of significant water use reductions.
3. Technical information will be provided to the District's customers regarding methods for improving water use efficiency.
4. The District will conduct a media campaign to remind consumers of the need to save water.
5. The District will publicize and expand appliances and fixtures efficiency programs.

Stage 3: Severe Shortage (51 to 60 percent)

Stage 4: Critical Shortage (60+ percent)

In the event that a severe or critical water shortage occurs, the District will establish mandatory annual allotments for each connection based on average use during a three-year base period that will supplement the voluntary measures outlined above. Said base period will be selected by the Water Shortage Response Team.

1. Each single family residential connection will receive no more than 103 ccf per year (68 gpcd minimum water requirement x 3.1 persons per household x 365 days = 79,942 gallons ÷ 748 = 103 ccf) per dwelling unit plus 20% of average annual usage in excess of 103 ccf.
2. Each multifamily residential connection will receive no more than 76 ccf per year (68 gpcd minimum water requirement x 2.3 persons per dwelling unit x 365 days = 57,086 gallons ÷ 748 = 76 ccf) per dwelling unit plus 20% of average annual usage in excess of 76 ccf.
3. Each commercial, industrial, and governmental connection will receive no more than 70% of average annual usage.
4. Each account that has been identified as a landscape connection will receive 20% of average annual usage, unless the specific account has been determined by District staff to meet the District's landscape guidelines for xeriscape design, irrigation, and maintenance, in which case it will receive 70% of average annual usage.
5. No meters will be installed for new accounts during a declared water shortage emergency.

<u>Appeals Procedure</u>

1. Any person who wishes to appeal their customer classification or allotment must do so in writing, using forms provided by the District.
2. Appeals will be reviewed by the Water Shortage Response Team, and site visits will be scheduled if required.
3. One of the conditions of approval will be that all applicable plumbing fixtures or irrigation systems be replaced or modified for maximum water conservation.
4. Increased allotments may be approved for the following:
    a. Substantial medical requirements.
    b. Residential connections with four or more residents in a single family household or three or more residents per unit in a multifamily residence. These connections can receive additional allotments based upon the same calculations used for the standards applied in Stages 3 and 4 per additional person. During a Stage 4 shortage, a census may be conducted to determine the actual number of residents per dwelling unit. Additional water will be approved for permanent residents only. Permanent residents are defined as people who live in the specific residence a minimum of five days per week, nine months per year.
    c. Commercial/ Industrial customers for which water supply reductions will result in unemployment or decreased production can appeal for an additional allotment. A District water auditor must first confirm that the customer has instituted all applicable water efficiency improvements.
    d. Non-agricultural customers can appeal for an additional allotment of 12 ccf per year per horse, cow, or other large animal, and 6 ccf per year for each efficiently irrigated mature fruit tree.
    e. Government agencies (parks, schools, county, etc.) may have separate account allotments combined into one "agency" allotment.

5. In the event that an appeal for an additional allotment is requested for irrigation of trees or vegetation in residential categories or for any agricultural use, District staff may use the services of a qualified consultant in determining the validity of the request.

6. The Water Shortage Response Team will approve or deny appeals and report all appeals to the District's Board of Directors monthly.

7. If the Water Shortage Response Team and the applicant are unable to reach agreement, the appeal will then be heard by the District's General Manager, who will make the final determination.

8. All appeals will be reported monthly to the District's Board of Directors as a part of the Water Supply Report.

APPENDIX N

CUWCC BMP RETAIL COVERAGE REPORTS FOR 2013 AND 2014

2013 REPORT

CUWCC BMP Retail Coverage Report 2013

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

134 Indian Wells Valley Water District

1. Conservation Coordinator provided with necessary resources to implement BMPs?

Name: Jennifer Keep

Title: Chief Financial Officer

Email: jennifer.keep@iwvwd.com

2. Water Waste Prevention Documents

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.	Indian Wells Valley Water District 134 12-13 BMP 1.1 Ord 93.pdf	http://www.iwvwd.com/wp-content/uploads/2013/07/ordinance-No-93-Rescinding-72-and-Adopting-Voluntary-and-Mandatory-Conservation-Measures-D-I-.pdf	Prohibits water runoff from landscape irrigation, washing down hard or paved services, knowingly allowing water to leak & using a hose without a shut-off nozzle while washing vehicle or recreational toys. Summer watering restricted 8 am to 8 pm.
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.	Indian Wells Valley Water District 134 12-13 BMP 1.1 City of Ridgecrest Ord 09-05.pdf		Prohibits water runoff from landscape irrigation, washing down hard or paved services, knowingly allowing water to leak & using a hose without a shut-off nozzle while washing vehicle or recreational toys. Summer watering restricted 8 am to 8 pm.
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			Indian Wells Valley Water District and the City of Ridgecrest worked together to develop similar ordinances which prohibits water waste and requires water efficient landscape as a condition of receiving water service. Both are enforced.
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			

CUWCC BMP Retail Coverage Report 2013

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.			IWVWD Ord 90 restricts the use of turf in front yards and only plants from recommended plant list may be planted as a condition of service. City of Ridgecrest Ord 09-05 requires building permits encouraging turf limitations.

At Least As effective As No

Exemption No

Comments:

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control **NOT ON TRACK**

134 Indian Wells Valley Water District

Completed Standard Water Audit Using AWWA Software?	Yes
AWWA File provided to CUWCC?	Yes
Indian Wells Valley Water District 134 Retail BMP 1.2 12-13 AWWA Water Audit Complete.xls	
AWWA Water Audit Validity Score?	88
Complete Training in AWWA Audit Method	Yes
Complete Training in Component Analysis Process?	Yes
Component Analysis?	No
Repaired all leaks and breaks to the extent cost effective?	Yes
Locate and Repar unreported leaks to the extent cost effective?	Yes
Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.	Yes

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)
317	471	47	0	False	0	0

At Least As effective As No

Exemption No

Comments:

The District has created a prev maint wtr loss program. Each year many leaks are reported in svc laterals. They are repaired immediately This year alone 238 service laterals were replaced as preventive maintenance & 2,142 vlvs were exercised.

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

NOT ON TRACK

134 Indian Wells Valley Water District

Numbered Unmetered Accounts	No
Metered Accounts billed by volume of use	Yes
Number of CII Accounts with Mixed Use Meters	
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	No
Feasibility Study provided to CUWCC?	No

Date: 1/1/0001

Uploaded file name:

Completed a written plan, policy or program to test, repair and replace meters	Yes

At Least As effective As No

Exemption No

Comments:

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

Exempt

134 Indian Wells Valley Water District

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Comodity Charges	(M) Total Revenue Fixed Carges
Single-Family	Increasing Block	Yes	3015686	3433316
Multi-Family	Increasing Block	Yes	396343	309965
Commercial	Increasing Block	Yes	453526	352590
Other	Increasing Block	Yes	450899	195451
			4316454	**4291322**

Calculate: V / (V + M) **50 %**

Implementation Option: Use Annual Revenue As Reported

☐ Use 3 years average instead of most recent year

Canadian Water and Wastewater Association

Upload file:

Agency Provide Sewer Service: No

At Least As effective As No

Exemption Yes Cost Effectiveness

Comments:

Re: Exemption Request - There have been no changes to the rates since the Board adopted them in February, 2012. See Exemption Letter Upload.10/02/15: Resubmitted using Option 3.

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

NOT ON TRACK

134 Indian Wells Valley Water District **Retail**

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

The name of agency, contact name and email address if not CUWCC Group 1 members

Did at least one contact take place during each quater of the reporting year? Yes

Public Outreach Program List	Number
General water conservation information	7
Website	2
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	6
Total	**15**

Did at least one contact take place during each quater of the reporting year? No

Number Media Contacts	Number
News releases	2
Total	**2**

Did at least one website update take place during each quater of the reporting year? Yes

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
Water Conservation Program	20500
Advertising	20000
Total Amount:	**40500**

Public Outreah Additional Programs
Customer notification when neighbor reports runoff or runoff is noticed by employees or meter reads show rise in use of 20% or more from same time previous year.
Additional program(s) supported by agency but not mentioned above.

Description of all other Public Outreach programs

School Education-Water/Energy Efficiency

Comments:

Due to a budget deficit one year prior, major budget cutbacks were made. This resulted in the elimination of the Conservation Coordinator & participation in conservation workshops, community functions, etc.

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

NOT ON TRACK

At Least As effective As	No	
Exemption	No	0

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

NOT ON TRACK

134 Indian Wells Valley Water District **Retail**

Does your agency implement School Education programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Materials meet state education framework requirements? Yes

Living Wise Resources Action Program identifies State Education Standards & Benchmarks. Materials support State and National educational standards.

Materials distributed to K-6? No

Materials distributed to 7-12 students? No (Info Only)

Annual budget for school education program: 6000.00

Description of all other water supplier education programs

Through the Sand Canyon Environmental Education Program (SEEP) a California groundwater model demonstration and water conservation program for 4th and 5th grade students during the fall/winter school session.

Comments:

At Least As effective As No

Exemption No 0

2014 REPORT

CUWCC BMP Retail Coverage Report 2014

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

134 Indian Wells Valley Water District

1. Conservation Coordinator provided with necessary resources to implement BMPs?

Name:	Jennifer Keep
Title:	Chief Financial Officer
Email:	jennifer.keep@iwvwd.com

2. Water Waste Prevention Documents

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.	Copy of Indian Wells Valley Water District 134 13-14 BMP 1.1 Ord 93.pdf		Prohibits water runoff from landscape irrigation, washing down hard or paved surfaces, knowingly allowing water to leak & using a hose without a shut-off nozzle while washing vehicles or recreational toys. Summer watering restricted 8 a.m. to 8 p.m.
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.	Copy2 of Indian Wells Valley Water District 134 13-14 BMP 1.1 City of Ridgecrest Ord 09-05.pdf		Prohibits water runoff from landscape irrigation, washing down hard or paved surfaces, knowingly allowing water to leak & using a hose without a shut-off nozzle while washing vehicles or recreational toys. Summer watering restricted 8 a.m. to 8 p.m.
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			IWVWD and the City of Ridgecrest worked together to develop similar ordinances which prohibits water waste and requires water efficient landscape as a condition of receiving water service. Both are enforced.
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			

CUWCC BMP Retail Coverage Report 2014

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.	Copy3 of Indian Wells Valley Water District 134 13-14 BMP 1.1 City of Ridgecrest Ord 09-05.pdf		City of Ridgecrest Building Permits encourages turf limitations and water efficient landscape designs. The IWVWD restricts the use of turf in front yards and only plants from recommended plant list may be planted as a condition of service.

At Least As effective As No

Exemption No

Comments:

To report water waste, the IWVWD has provided a form on it's website www.iwvwd.com Water Waste Reporting on website was started January 2014. The District received 81 water waste reports. All were notified with a door notice and more if necessary.

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control

NOT ON TRACK

134 Indian Wells Valley Water District

Completed Standard Water Audit Using AWWA Software?	Yes
AWWA File provided to CUWCC?	Yes
AWWA Water Audit Software 2013-2014.xls	
AWWA Water Audit Validity Score?	91
Complete Training in AWWA Audit Method	Yes
Complete Training in Component Analysis Process?	Yes
Component Analysis?	Yes
Repaired all leaks and breaks to the extent cost effective?	Yes
Locate and Repar unreported leaks to the extent cost effective?	Yes
Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.	Yes

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)
420			0	False	0	

At Least As effective As No

Exemption No

Comments:

IWVWD has included mainline replacement in its 10-year Capital Improvement Projects and will be bid out to contractors.

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

NOT ON TRACK

134 Indian Wells Valley Water District

Numbered Unmetered Accounts	No
Metered Accounts billed by volume of use	Yes
Number of CII Accounts with Mixed Use Meters	631
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	No
Feasibility Study provided to CUWCC?	No

Date: 1/1/0001

Uploaded file name:

Completed a written plan, policy or program to test, repair and replace meters	Yes

At Least As effective As No

Exemption No

Comments:

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

On Track

134 Indian Wells Valley Water District

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Comodity Charges	(M) Total Revenue Fixed Carges
Single-Family	Increasing Block	Yes	2743195	3484709
Multi-Family	Increasing Block	Yes	394437	311814
Commercial	Increasing Block	Yes	970971	535038
			4108603	**4331561**

Calculate: V / (V + M) **49 %**

Implementation Option: Use Annual Revenue As Reported

☐ Use 3 years average instead of most recent year

Canadian Water and Wastewater Association

Upload file:

Agency Provide Sewer Service: No

At Least As effective As Yes

Used Option 3 to report Agency's good faith efforts totaling 44 points.

Exemption No

Comments:

Used Option 3 for a total of 44 points.

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

134 **Indian Wells Valley Water District** **Retail**

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

The name of agency, contact name and email address if not CUWCC Group 1 members

Did at least one contact take place during each quater of the reporting year? Yes

Public Outreach Program List	Number
General water conservation information	4
Website	1
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	5000
Total	**5005**

Did at least one contact take place during each quater of the reporting year? Yes

Number Media Contacts	Number
Radio contacts	4
Newspaper contacts	84
News releases	2
Total	**90**

Did at least one website update take place during each quater of the reporting year? Yes

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
Water Conservation Program	119000
Advertising	19000
Total Amount:	**138000**

Public Outreah Additional Programs
Customer notification when neighbor reports runoff or runoff is noticed by employees or meter reads show rise in use of 20% or more from same time previous year.
Additional program(s) supported by agency but not mentioned above.
Landscape Leak Flags
Hotel/Motel Conservation Cards
Restaurant Conservation Cards
Website Update
Free low-flow showerheads

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

Public Outreah Additional Programs
Free faucet aerators
Free hose nozzles w/shutoff
Free moisture meters
Billboards (3)

Description of all other Public Outreach programs

School Education-Water/Energy Efficiency

Comments:

I do not understand why it does not say that we are 'on track'. Everything else says we are. Please review and let me know why this is not 'on track'. Thank you.

At Least As effective As No

Exemption No 0

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

ON TRACK

134 Indian Wells Valley Water District **Retail**

Does your agency implement School Education programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Materials meet state education framework requirements? Yes

6th Grade - Living Wise Resources Action Program identifies State Education Standards & Benchmarks. Materials support state and national educational standards, which allow the program to easily fit into teacher's existing schedules & requirements.

Materials distributed to K-6? Yes

4th Grade - Ground Water - Meaning of ground water, hydrologic cycle, threats to ground water, and how to make a difference.

Materials distributed to 7-12 students? No (Info Only)

Annual budget for school education program: 6000.00

Description of all other water supplier education programs

Comments:

At Least As effective As No

Exemption No 0

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134 Indian Wells Valley Water District

Baseline GPCD: 254.81

GPCD in 2014 204.8

GPCD Target for 2018: 208.90

Biennial GPCD Compliance Table

ON TRACK

		Target		Highest Acceptable Bound	
Year	Report	% Base	GPCD	% Base	GPCD
2010	1	96.4%	**245.60**	100%	**254.80**
2012	2	92.8%	**236.50**	96.4%	**245.60**
2014	3	89.2%	**227.30**	92.8%	**236.50**
2016	4	85.6%	**218.10**	89.2%	**227.30**
2018	5	82.0%	**208.90**	82.0%	**208.90**

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