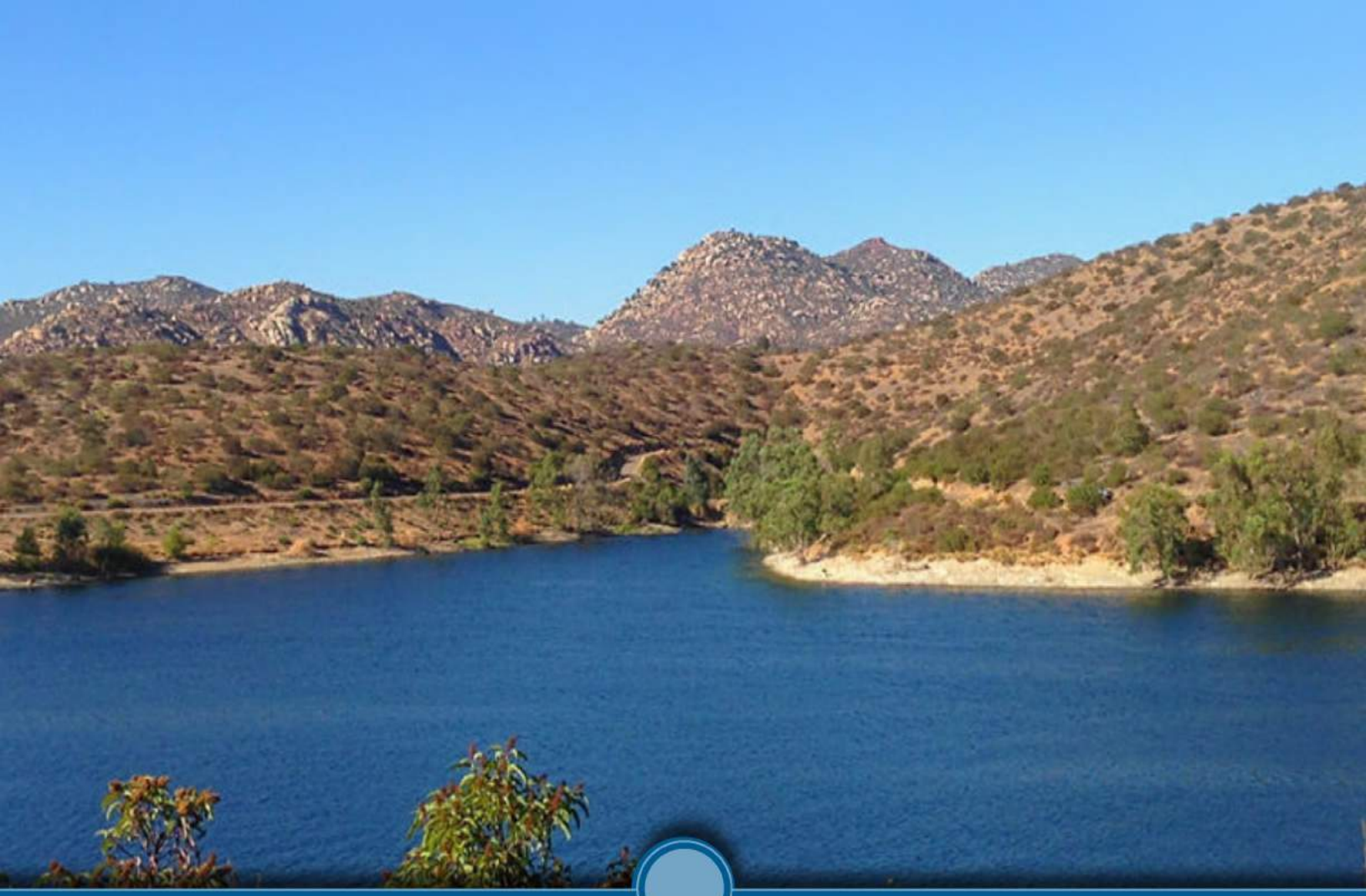

FINAL

2015 Urban Water Management Plan *for* **San Gorgonio Pass Water Agency**

March 2017

Prepared by

Kennedy/Jenks Consultants

RESOLUTION NO. 2017-03

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN GORGONIO PASS WATER AGENCY ADOPTING THE 2015 URBAN WATER MANAGEMENT PLAN

WHEREAS, the Urban Water Management Planning Act (Water Code, Part 2.6, Section 10610 et seq.) mandates that every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan, and update its Urban Water Management Plan at least once every five years; and

WHEREAS, the Water Conservation Act of 2009 (Water Code, Part 2.55, Section 10608 et seq.) established, among other things, standards for urban retail water suppliers to achieve reductions in urban per capita water use statewide; and

WHEREAS, the San Gorgonio Pass Water Agency (Agency) is an urban wholesale water supplier for purposes of the requirements of the Urban Water Management Planning Act and the Water Conservation Act of 2009; and

WHEREAS, in accordance with the Urban Water Management Planning Act and the Water Conservation Act of 2009 , the Agency has prepared its 2015 Urban Water Management Plan (2015 UWMP) and has undertaken certain coordination, notice, public involvement, public comment, and other procedures in relation to its 2015 UWMP;

WHEREAS, as authorized by Section 10620(e) of the Urban Water Management Planning Act, the Agency has prepared its 2015 UWMP with its own staff, with the assistance of consulting professionals, and in cooperation with other governmental agencies, and has utilized and relied upon industry standards and the expertise of industry professionals in preparing its 2015 UWMP, and has also utilized and relied upon the California Department of Water Resources Guidebook for Urban Water Suppliers to Prepare 2015 Urban Water Management Plans (March 2016), including its related appendices; and

WHEREAS, in accordance with applicable law, including Water Code Section 10642 and Government Code Section 6066, a properly noticed public hearing regarding the Agency's 2015 UWMP was conducted by the Agency's Board of Directors on March 6, 2017 in order to provide members of the public and other interested entities with the opportunity to be heard in connection with the 2015 UWMP and the proposed adoption thereof; and

WHEREAS, pursuant to said public hearing on the 2015 UWMP, the Agency, among other things, encouraged the active involvement of diverse social, cultural, and economic members of the community within the Agency's service area with regard to the preparation and proposed adoption of the 2015 UWMP; and

WHEREAS, the Board of Directors of the Agency has reviewed and considered the purposes and requirements and of the Urban Water Management Planning Act and the Water Conservation Act of 2009, the contents of the 2015 UWMP, and the documentation contained in the administrative record in support of the 2015 UWMP, and has determined that the factual analyses and conclusions set forth in the 2015 UWMP are supported by substantial evidence.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the San Gorgonio Pass Water Agency as follows:

1. The Board of Directors approves and adopts the Agency's 2015 Urban Water Management Plan, a final copy of which is attached hereto as Exhibit "A";

2. The General Manager is hereby authorized and directed to include a copy of this Resolution in the 2015 Urban Water Management Plan, and to electronically submit a copy of the 2015 Urban Water Management Plan to the California Department of Water Resources;

3. The General Manager is hereby authorized and directed, in accordance with Water Code section 10644(a) to submit a copy of the 2015 Urban Water Management Plan to the California State Library within thirty (30) days after this adoption date;

4. The General Manager is hereby authorized and directed, in accordance with Water Code section 10644(a), and in satisfaction of Water Code section 10635(b), to submit a copy of the 2015 Urban Water Management Plan, specifically including the portion of the Plan prepared in accordance with Water Code section 10635(a), to any city or county within which the Agency provides water supplies within thirty (30) days after this adoption date;

5. The General Manager is hereby authorized and directed, in accordance with Water Code section 10645, to make the 2015 Urban Water Management Plan available for public review at the Agency's offices during normal business hours not later than thirty (30) days after filing a copy thereof with the California Department of Water Resources;

6. The General Manager is hereby authorized and directed to recommend to the Board of Directors additional steps necessary or appropriate to effectively carry out the implementation of the 2015 Urban Water Management Plan in accordance with the Urban Water Management Planning Act and the Water Conservation Act of 2009.

Resolution No. 2017-03 was adopted this 20th day of March 2017, by the following vote:

Ayes: Stephenson, Lehtonen, Castaldo, Duncan Thompson and Fenn
Noes:
Abstain: Ball
Absent:

ADOPTED AND APPROVED this 20th day of March, 2017.

President, Board of Directors
San Gorgonio Pass Water Agency

ATTEST:

Secretary, Board of Directors
San Gorgonio Pass Water Agency

Kennedy/Jenks Consultants

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Oxnard, California 93036
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2015 San Gorgonio Pass Water Agency Urban Water Management Plan

Public Final

21 March 2017

Prepared for

San Gorgonio Pass Water Agency
1210 Beaumont Avenue
Beaumont, CA 92223

K/J Project No. 1544217*00

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List of Acronyms

µg/L	micrograms per liter
AB	Assembly Bill
ACS	American Community Survey
AF	acre-feet
AFY	acre-feet per year
AWWA	American Water Works Association
BCVWD	Beaumont-Cherry Valley Water District
BDCP	Bay Delta Conservation Plan
BHMWC	Banning Heights Mutual Water Company
BO	Biological Opinion
Cal OES	California Office of Emergency Services
CEQA	California Environmental Quality Act
CFS	cubic feet per second
CIMIS	California Irrigation Management Information System
CLAWA	Crestline-Lake Arrowhead Water Agency
CVP	Central Valley Project
CWC	California Water Code
CWD	Cabazon Water District
CWP	California Water Plan
DCR	Delivery Capability Report
DDW	Division of Drinking Water
DMM	Demand Management Measure
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ELT	Early Long Term
ETo	evapotranspiration
F	Fahrenheit
GSP	Groundwater Sustainability Plan
HVWD	High Valley Water District
MG	million gallons
mg/L	milligrams per liter
MGD	million gallons per day
MSWD	Mission Springs Water District
MWQI	Municipal Water Quality Investigations
NMFS	National Marine Fishery Service
PHG	Public Health Goal

ppm	parts per million
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SBVMWD	San Bernardino Valley Municipal Water District
SGMA	Sustainable Groundwater Management Act
SGPWA	San Gorgonio Pass Water Agency
SMWC	South Mesa Water Company
SWP	State Water Project
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
USEPA	United States Environmental Protection Agency
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan
YVRWFF	Yucaipa Valley Regional Water Filtration Facility
YVWD	Yucaipa Valley Water District

Section 1: Introduction

1.1 Overview

This document presents the wholesale Urban Water Management Plan 2015 (Plan) for the San Gorgonio Pass Water Agency (Agency, SGPWA) service area. This chapter describes the general purpose of the Plan, discusses Plan implementation, and provides general information about SGPWA, retail water purveyors, and service area characteristics.

The State of California mandates that all urban water suppliers within the state prepare an Urban Water Management Plan (UWMP). Detailed information on what must be included in these plans as well as who must complete them can be found in California Water Code sections 10610 through 10657. According to the UWMP Act of 1983, an urban water supplier is defined as a supplier, either public or private, that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplies more than 3,000 acre-feet (AF) annually.

1.2 Purpose

An UWMP is a planning tool that generally guides the actions of water management agencies. It provides managers and the public with a broad perspective on a number of water supply issues. It is not a substitute for project-specific planning documents, nor was it intended to be when mandated by the State Legislature. For example, the Legislature mandated that a plan include a Section which "describes the opportunities for exchanges or water transfers on a short-term or long-term basis." (California Urban Water Management Planning Act, Article 2, Section 10630(d).) The identification of such opportunities, and the inclusion of those opportunities in a general water service reliability analysis, neither commits a water management agency to pursue a particular water exchange/transfer opportunity, nor precludes a water management agency from exploring exchange/transfer opportunities not identified in the plan. When specific projects are chosen to be implemented, detailed project plans are developed, environmental analysis, if required, is prepared, and financial and operational plans are detailed.

"A plan is intended to function as a planning tool to guide broad-perspective decision making by the management of water suppliers." (*Sonoma County Water Coalition v. Sonoma County Water Agency* (2010) 189 Cal. App. 4th 33, 39.) It should not be viewed as an exact blueprint for supply and demand management. Water management in California is not a matter of certainty and planning projections may change in response to a number of factors. "[L]ong-term water planning involves expectations and not certainties. The State Supreme Court has recognized the uncertainties inherent in long-term land use and water planning and observed that the generalized information required . . . in the early stages of the planning process are replaced by firm assurances of water supplies at later stages." (*Id.*, at 41.) From this perspective, it is appropriate to look at the UWMP as a general planning framework, not a specific action plan. It is an effort to generally answer a series of planning questions including:

- What are the potential sources of supply and what is the reasonable probable yield from them?

- What is the probable demand, given a reasonable set of assumptions about growth and implementation of good water management practices?

- How well do supply and demand figures match up, assuming that the various probable supplies will be pursued by the implementing agency?

Using these "framework" questions and resulting answers, the implementing agency will pursue feasible and cost-effective options and opportunities to meet demands. SGPWA will explore enhancing basic supplies from traditional sources such as the State Water Project (SWP) as well as other options.

The California Urban Water Management Planning Act (Act) requires preparation of a plan that:

- Accomplishes water supply planning over a 20-year period in five year increments. (SGPWA is going beyond the requirements of the Act by developing a plan which spans 25 years.)

- Identifies and quantifies adequate water supplies, including recycled water, for existing and future demands, in normal, single dry, and multiple dry years.

- Implements conservation and efficient use of urban water supplies.

Significant new requirements for quantified demand reductions have been added by the enactment of SBX7-7, which amends the Act; a portion of this law applies to SGPWA. In addition, a number of changes to the Water Code have been enacted since 2010 that affect implementation of the 2015 Plan updates. These changes apply to:

- Demand Management Measures CWC (CWC) Section 10631(f)(1) and (2) Assembly Bill (AB) 2067, 2014

- Submittal Date CWC Section 10621 (d) AB 2067, 2014

- Electronic Submittal CWC Section 10644 (a)(2) Senate Bill (SB) 1420, 2014

- Standardized Forms CWC Section 10644(1)(2) SB 1420, 2014

- Water Loss CWC Section 10631 (e)(1)(J) and (e)(3)(A) and (B) SB 1420, 2014

- Estimating Future Water Savings CWC Section 10631 (e)(4) SB 1420, 2014

- Voluntary Reporting of Energy Intensity CWC Section 10631.2 (a) and (b) Senate Bill 1036, 2014

- Defining Water Features CWC Section 10632 (b) Assembly Bill 2409, 2014

A checklist to ensure compliance of this Plan with the Act requirements is provided in Appendix A. A copy of the required standardized data tables is provided as Appendix B.

In short, the Plan answers the question: *Will there be enough water for the communities within the SGPWA service area in future years?* It also addresses what mix of programs should be explored for making this water available, and sets a framework for discussion of the priority of these programs.

It is the stated goal of SGPWA to import supplemental water and to protect and enhance local water supplies for use by present and future water users and to sell imported water at wholesale to local retail water purveyors within its service area. Based on conservative water supply and demand assumptions over the next 25 years in combination with conservation of non-essential demand during certain dry years, the Plan successfully achieves this goal. It is important to note that this document has been completed to address regional resource management and does not address the particular conditions of any specific retail water agency or entity within the SGPWA service area. The retail urban water suppliers within SGPWA service area are preparing their own separate UWMPs, but SGPWA has coordinated with the retailers during development of this Plan to ensure a level of consistency with the retailers to the extent possible.

1.3 Basis for preparing a plan

In accordance with the California Water Code, urban water suppliers with 3,000 or more service connections, or supplying 3,000 or more AF of water per year, are required to prepare a UWMP every five years. The 2015 UWMP shall be updated and submitted to the California Department of Water Resources (DWR) by July 1, 2016.

1.4 Implementation of the Plan

The SGPWA service area encompasses a number of different local water agencies, three (3) of which are required to prepare individual UWMPs because they meet the threshold requirement. The three retail purveyors within SGPWA service area required to prepare their own UWMP include:

- City of Banning
- Beaumont-Cherry Valley Water District (BCVWD)
- Yucaipa Valley Water District (YVWD)

Other retail water agencies within the SGPWA service area that fall under the threshold for preparation of an UWMP (less than 3,000 connections or provide less than 3,000 AFY) include the following:

- South Mesa Water Company (SMWC)
- Cabazon Water District (CWD)
- Banning Heights Mutual Water Company (BHMWC)
- High Valleys Water District (HVWD)

- Mission Springs Water District (MSWD)
- Morongo Band of Mission Indians

1.5 Cooperative Preparation of the Plan

Wholesale water agencies are permitted by the State to either work independently to develop a wholesale UWMP or they can coordinate their planning with retail agencies within their service area to develop a cooperative regional plan. The former approach has been adopted by the SGPWA; however, the Plan was developed in coordination with the retail water agencies within the SGPWA service area. Water resource specialists with expertise in water resource management were retained to assist the local water agencies in preparing the details of their Plans. Agency coordination for this Plan is summarized in Table 1-1.

TABLE 1-1

AGENCY COORDINATION SUMMARY

	Participated in UWMP Development	Received Copy of Draft	Commented on Draft	Attended Public Meetings	Contacted for Assist	Sent Notice of Intent to Adopt
City of Banning Water Department	✓	✓			✓	✓
Beaumont-Cherry Valley Water District	✓	✓	✓		✓	✓
Yucaipa Valley Water District	✓	✓			✓	✓
Cabazon Water District	✓	✓			✓	✓
South Mesa Water Company	✓	✓			✓	✓
Banning Heights Mutual Water Company	✓	✓			✓	✓
High Valleys Water District	✓	✓			✓	✓
Mission Springs Water District	✓	✓			✓	✓
Morongo Band of Mission Indians	✓	✓			✓	✓
City of Calimesa		✓				✓
City of Beaumont		✓				✓
Riverside County		✓				✓
San Bernardino County		✓				✓

1.5.1 Plan Adoption

SGPWA began preparation of this Plan for its service area in October 2015. The final draft of the Plan was adopted by the SGPWA Board in March 2017 and submitted to DWR within 30 days of Board approval. This Plan includes all information necessary to meet the requirements of Water Conservation Act of 2009 (Wat. Code, §§ 10608.12-10608.64) and the Urban Water Management Planning Act (Wat. Code, §§ 10610-10656).

1.5.2 Public Outreach

The SGPWA has encouraged community participation in water planning. Interested groups were informed about the development of the Plan along with the schedule of public activities. Notices of the Public Hearing were published in the local press. Copies of the Draft Plan were made available at the water agency's office, local public libraries and sent to the County of San Bernardino as well as interested parties.

SGPWA coordinated the preparation of the Plan with the local land use planning agencies; SGPWA notified the cities and counties within its service area of the opportunity to provide input regarding the Plan. Table 1-2 presents a timeline for public participation during the development of the Plan. A copy of the public outreach materials are provided in Appendix C.

TABLE 1-2

PUBLIC PARTICIPATION TIMELINE

Date	Event	Description
October 20, 2015	UWMP Kick-off	Describe UWMP requirements and process
January 17, 2017	Draft UWMP	Draft UWMP released to solicit input
March 6, 2017	Public Hearing	Review contents of Draft UWMP and take comments
March 20, 2017	Board Adoption	Final Draft UWMP considered for approval by the Board of Directors

The components of public participation include local media, water agency public participation, city and county government outreach, and public availability of documents.

Local Media

- Paid advertisements in local newspapers

Water Agencies Public Participation

- Draft UWMP sent to retail purveyors for review (see Table 1-1)

City/County and Other Government Outreach

- Notice sent to various Local, County, and State agencies

Public Availability of Documents

- SGPWA website
- Local libraries

1.5.3 Resources Maximization

Several documents were developed to enable the water suppliers to maximize the use of available resources and minimize use of imported water, including the 2010 SGPWA UWMP, the Integrated Regional Water Management Plan for the Upper Santa Ana River Watershed (2015), DWR's 2015 State Water Project Delivery Capability Report (2015 DCR), SGPWA's Reports on Water Conditions (2010 to 2014), the 2012 SGPWA Strategic Plan, and discussions with SGPWA staff. Chapter 3 of this Plan describes in detail the water resources available to SGPWA and the retail purveyors for the twenty-five-year period covered by the Plan. A complete reference list is provided in Section 8 of this Plan.

1.5.4 Fiscal or Calendar Year

A water supplier may report on a fiscal year or calendar year basis, but must clearly state in its UWMP the type of year that is used for reporting. The type of year should remain consistent throughout the Plan. This plan provides data consistent with a calendar year, in acre-feet per year (AFY).

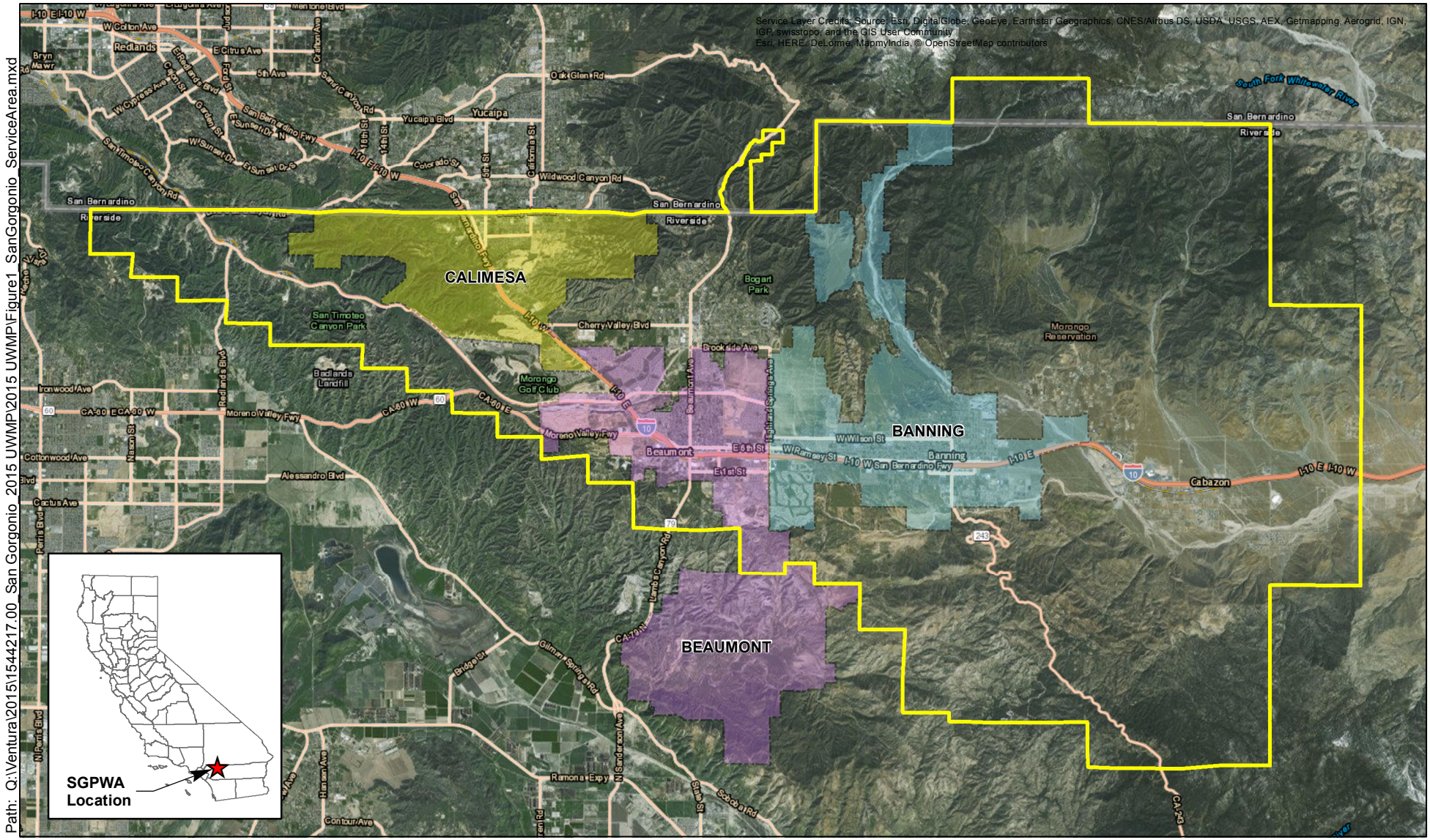
1.6 Water Management within the SGPWA Service Area

1.6.1 San Gorgonio Pass Water Agency

The SGPWA was established by the SGPWA Act, passed by the California Legislature in 1961 and signed by Governor Pat Brown in July of 1961. At its inception, the agency service area had a population of approximately 21,000 (today is closer to 95,000).

The San Gorgonio Pass is located between the San Bernardino Mountains on the north and the San Jacinto Mountains on the south, connecting the San Bernardino Valley on the west to the Coachella Valley on the east. The Cities of Calimesa, Beaumont, and Banning are within the SGPWA's service area (Figure 1-1). The municipalities located within the service areas of water agencies in the SGPWA service area are summarized below.

The principle drainage basins and streams within the service area are shown on Figure 1-2.



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Legend

- San Gorgonio Pass Water Agency (SGPWA) Boundary
- County Boundary
- City of Banning
- City of Beaumont
- City of Calimesa

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Kennedy/Jenks Consultants

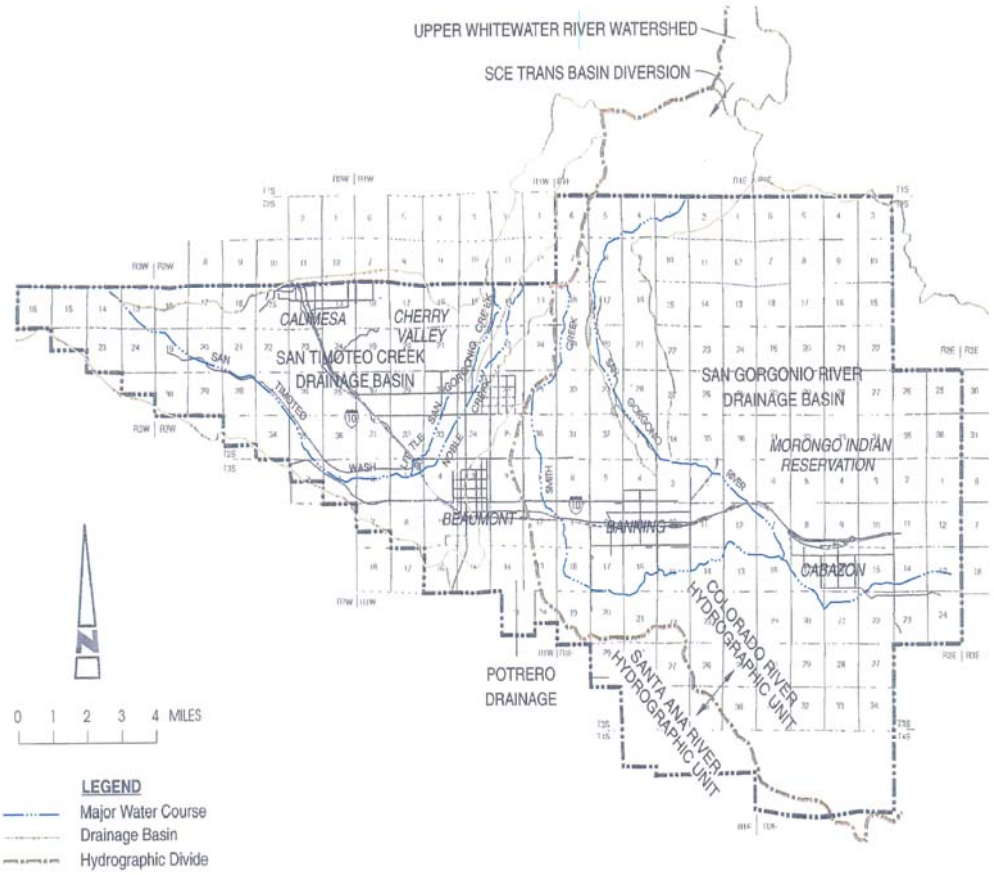
San Gorgonio Pass Water Agency
2015 Urban Water Management Plan
Riverside County, California

San Gorgonio Pass Water Agency Service Area Boundary

KJ 1544217*00
January 2016

Figure 1-1

FIGURE 1-2 PRINCIPLE DRAINAGE BASINS AND STREAMS



Source: SGPWA 2014 Report on Water Conditions

1.6.2 Exclusively or Primarily Wholesale Urban Water Supplier

If an urban water supplier meets the definition of an urban wholesale water supplier, as found in 10608.12 (r), it is considered a wholesale urban water supplier. Only the water code requirements that apply to wholesale suppliers must be addressed. SGPWA is a wholesale urban water supplier.

1.6.3 Retail Water Purveyors

Nine retail purveyors provide water services to most residents and businesses within the SGPWA service area[1]. While only the City of Banning, BCVWD, and YVWD currently receive SWP water directly from the SGPWA, all nine retailers supply water to their customers from local groundwater, which is replenished by SWP water imported by SGPWA. In addition, the YVWD serves water to its customers through direct deliveries from its surface water filtration plant.

City of Banning supplies water and wastewater services to the City of Banning. The City currently comprises a total land area of approximately 23 square miles in northern Riverside County. The City's water system is currently part of the City of Banning Public Works Department and Water Division.

Beaumont-Cherry Valley Water District's service area covers approximately 28 square miles, in Riverside and San Bernardino Counties, and includes the City of Beaumont and the community of Cherry Valley. The District purchases imported water from the SWP through the SGPWA for recharge of the Beaumont groundwater basin. The District also jointly owns and operates three groundwater wells with the City of Banning.

Yucaipa Valley Water District provides drinking water, recycled water, sewer collection, sewer treatment, and brine disposal services to the City of Yucaipa and the City of Calimesa in both San Bernardino and Riverside Counties. Yucaipa's service area encompasses approximately 40 square miles. YVWD also receives water from the San Bernardino Valley Municipal Water District (SBVMWD). Water demands and supplies within this portion of YVWD's service area are excluded from this UWMP.

South Mesa Water Company's service area includes parts of both the City of Calimesa and the City of Yucaipa.

Cabazon Water District's service area includes the unincorporated community of Cabazon in the eastern portion of SGPWA's service area.

Banning Heights Mutual Water Company's service area is the unincorporated community of Banning Bench, north of the City of Banning.

High Valleys Water District provides service to residents of the Twin Pines and Poppet Flats communities. HVWD receives all of its water from the City of Banning.

Mission Springs Water District's service area includes Desert Hot Springs and surrounding areas.

Morongo Band of Mission Indians' service area is approximately 35,000 acres northeast of the City of Banning.

[1] Other very small mutual water companies, such as Cherry Valley, exist in the Agency's service area. Their demands will be considered in future updates of the UWMP as appropriate.

1.6.4 Public Water Systems

Public water systems are the systems that provide drinking water for human consumption and these systems are regulated by the State Water Resources Control Board (SWRCB), Division of Drinking Water. Reporters file electronic Annual Reports to the Drinking Water Program to the Board, which include annual reports of water usage and other information.

The service areas of SGPWA and the major retail water purveyors are shown on Figure 1-3. As of 2015, retail water purveyors with demands on SGPWA, which are also agencies required to complete UWMPs, served approximately 25,000 connections, as presented in Table 1-3.

TABLE 1-3

RETAIL PUBLIC WATER SYSTEMS[(a)]

Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015 (AFY)
3310002	BCVWD[(b)]	16,799	9,293
3310006	City of Banning[(c)]	10,650	5,971
3610055	YVWD[(d)]	12,304	9,595
Total		39,753	24,859

Notes:

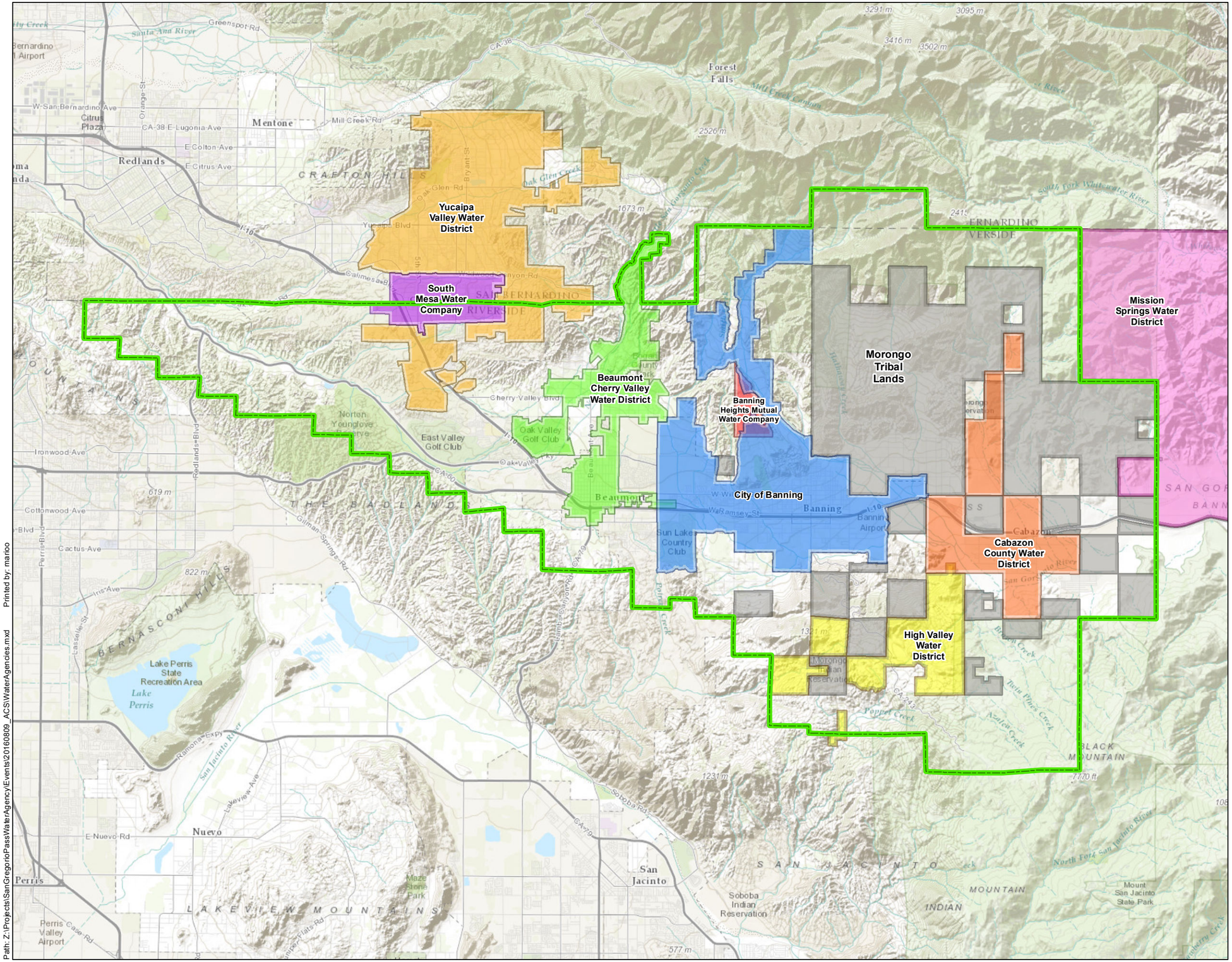
(a) Data provided only for those retail agencies with 2015 demands on SGPWA
(b) BCVWD 2015 UWMP
(c) City of Banning 2015 UWMP
(d) San Bernardino Valley Regional 2015 UWMP; includes supply from both SGPWA and San Bernardino Valley Municipal Water District.

1.7 Climate

The SGPWA service area experiences a semi-arid climate with hot, dry summers and cool winters (Table 1-3). Temperatures in the summer can exceed 95 degrees Fahrenheit (F), but with low humidity. In the winter, high temperatures may not rise above 55 degrees F during rainy days. On average, January is the coldest month with an average high/low of 61degrees F/39 degrees F while August is the hottest with a high/low of 96 degrees F/58 degrees F. SGPWA receives about 17 inches of precipitation annually with most of it occurring from January through March, with February being the wettest month. Average rainfall within the lower lying areas of the region is roughly five to seven inches per year. The large variation in annual rainfall within the surrounding mountains directly affects the annual water supply of the region. During El Niño years, southern California can receive considerably more precipitation and cooler temperatures than average. Evapotranspiration follows a similar trend as temperature, peaking in July, and decreasing in December.

Representative precipitation, temperature, and average evapotranspiration (ETo) data are reported in Table 1-4, as recorded at Beaumont Station (040609) and Hemet Station (Station 239).

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community



Legend

- San Gorgorio Pass Water Agency Service Area
- City of Banning
- Beaumont Cherry Valley Water District
- Cabazon County Water District
- South Mesa Water Company
- Yucaipa Valley Water District
- Banning Heights Mutual Water Company
- High Valley Water District
- Mission Springs Water District
- Morongo Tribal Lands

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Kennedy/Jenks Consultants

San Gregorio Pass Water Agency
Riverside County, California

Water Agencies within San Gorgorio Pass Water Agency Service Area

1544217*00
September 2016
Figure 1-3

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TABLE 1-4

MONTHLY AVERAGE CLIMATE DATA SUMMARY

Month	Standard Monthly Average ETo (inches)[(a)]	Average Total Rainfall (inches) [(b)]	Average Temperature (degrees Fahrenheit)[(b)]	
			Max	Min
January	2.3	4.5	60	38
February	2.6	3.8	63	39
March	4.2	3.3	67	40
April	5.0	1.4	72	43
May	6.7	0.6	79	48
June	7.2	0.1	88	52
July	7.9	0.2	96	58
August	7.6	0.3	95	59
September	6.1	0.5	90	56
October	4.1	0.7	80	49
November	2.6	1.8	69	43
December	1.9	2.5	62	39

Notes:

(a) ETo data was obtained from the California Irrigation Management Information System (CIMIS) website at http://www.cimis.water.ca.gov/ for the Hemet Station (Station 239).

(b) Average rainfall data and average temperature data were obtained from the Western Regional Climate Center website at http://www.wrcc.dri.edu/ for the Beaumont #2 Station (040609) for the period of record 08/01/1939 to 1/20/2015.

1.8 Potential Effects of Climate Change

DWR's California Water Plan Update 2013 (CWP) considers how climate change may affect water availability, water use, water quality, and the ecosystem.[2]

Volume 1, Chapter 5 of the CWP, "Managing an Uncertain Future," evaluated how statewide and regional water demands that might change by 2050 in response to uncertainties both gradual and sudden. Gradual or long term factors include population growth, land use changes, and climate change. Sudden or short term changes include drought, flooding, earthquakes, the vulnerable condition of the Delta, fire, the economy, accidents, terrorist acts, and changes in policies, regulations, and laws. The uncertainties will play out differently across the regions of California. Each region will need to develop a portfolio of resource management strategies that consider regional water-management challenges and can be implemented to address regional issues.

In its 2015 State Water Project Delivery Capability Report (DCR), DWR included the potential effects of climate change in its analysis of SWP delivery reliability under future conditions. For that report, DWR selected a climate change scenario with median effects out of a number of climate change scenarios it analyzed in 2014.

[2] California Water Plan Update 2013 Investing in Innovation & Infrastructure: Bulletin 160-13.

Even without population changes, water demand could increase. Precipitation and temperature influence water demand for outdoor landscaping and irrigated agriculture. Outdoor water use is a large component of water demands in the service area. Lower spring rainfall increases the need to apply irrigation water. Further, warmer temperatures increase crop evapotranspiration, which increases consumptive use of water.

These effects and their potential to impact the supplies available to SGPWA have been evaluated indirectly in the DWR 2015 DCR, and their potential to impact demand is considered in SGPWA's assessment of demands in Chapter 2 of this UWMP.

1.9 Climate Change Vulnerability Analysis

Identification of watershed characteristics that could potentially be vulnerable to future climate change is the first step in assessing the climate change vulnerabilities in the Region. In the context of this analysis, vulnerability is defined as the degree to which a system is exposed to, susceptible to, and able to cope with and adapt to, the adverse effects of climate change, consistent with the definition in the recently issued Climate Change Handbook for Regional Water Planning (USEPA and DWR, 2011).

Water-related resources that are considered important in the Region and potentially sensitive to future climate change include water demands, water supplies, water quality, sea level rise, flooding, and ecosystem and habitat. A qualitative assessment of each of these resources with respect to anticipated climate change impacts has been prepared in the 2015 Integrated Regional Water Management Plan for the Upper Santa Ana River Watershed, in which SGPWA is a participant. The assessment follows the climate change vulnerability checklist assessment as defined in the Climate Change Handbook for Regional Water Planning and highlights those water-related resources that are important to the Region and are sensitive to climate change. This checklist is provided as Appendix D.

1.10 Other Demographic Factors

The past several years have been marked by both an economic recession and drought conditions in California, which have combined to substantially reduce water consumption in the SGPWA service area. The Governor issued an Executive Order in 2015 for mandatory water conservation calling for a 25 percent reduction in water consumption across the state in response to the severity of the drought.

It is anticipated that per capita water consumption will continue to decrease in the future, even with an economic recovery. This is due to the actions taken by local and state water agencies in response to the drought and the Governor's mandate, which are anticipated to remain in place moving into the future, as well as passive savings that will be realized through legislated codes, fixture and appliance standards, ordinances and education coupled with changing water use habits. Overall water consumption may stay relatively flat in the future as lower per capita water consumption is offset by increased population and economic activity.

Section 2: Water Use

2.1 Overview

This chapter describes past, current and projected water demands on SGPWA, including the methodology used to project future demands. Sales to other agencies, specifically BCVWD, City of Banning, and YVWD currently account for 100 percent of SGPWA's water demands. Additional smaller agencies and the Morongo Band of Mission Indians do not currently purchase water from the SGPWA, but may potentially request supplies in the future.

Numerous factors, including but not limited to, weather, conservation, population growth and land use changes, can affect the amount of water needed, as well as the timing of when it is needed. In addition, during an economic recession, there is a major downturn in development and a subsequent slowing of the projected demand for water. The projections in this Plan do not attempt to forecast recessions or droughts. Likewise, no speculation is made about future building and plumbing codes or other regulatory changes.

To the extent possible, relevant data was obtained from individual purveyor UWMPs that were completed for the 2015 cycle.

2.2 Demographics

Water service within the SGWPA service area is provided by retail purveyors to residential, commercial, industrial, institutional, recreational, and agricultural customers and for environmental and other uses, such as fire protection and landscaping. The total water demand trend is expected to continue to rise within the SGPWA's service area (along with most of California) because of population growth, economic activity, environmental and water quality needs and regulatory requirements.

2.3 Population

Table 2-1 shows the population projections for the SGPWA service area through 2040. The 2015 population is based on a 5-year American Community Survey (ACS) estimate for 2010-2014. Projections to 2040 were estimated using an average growth rate for the area based on available population projections for agencies within the SGPWA service area. When looking at individual agency projections, including BCVWD, City of Banning, YVWD and SMWC, projections are collectively higher than population projections estimated for the SGPWA service area using ACS data. This could be based on higher 2015 estimates for the individual agencies, as well as the fact that the SGPWA service area does not fully encompass the boundaries of all the individual agencies. Refer to Figure 1-1 for the purveyor service area boundaries.

TABLE 2-1
POPULATION PROJECTIONS FOR THE SGPWA SERVICE AREA

Subarea	2015	2020	2025	2030	2035	2040
SGPWA	87,192[a]	96,954	107,809	119,880	133,302	148,226

Notes:
(a) 2015 population based on 2010-2014 ACS 5-year estimate.

2.4 Historic Water Use, Sales to Other Agencies

SGPWA is a State Water Project Contractor and provides imported SWP water to the retail water purveyors within its service area. Purveyor demands on SGPWA generally showed a significant decrease between 2010 and 2015, primarily as a result of severe drought conditions and implementation of effective conservation measures. Table 2-2 shows historical (2010) and current (2015) water demands on SGPWA.

TABLE 2-2
HISTORICAL (2010) AND CURRENT (2015) WATER DEMANDS ON SGPWA (AF)[a]

Agency Name	2010	2015
BCVWD[b][c]	5,727	2,773
City of Banning[c]	1338	694
YVWD[c]	713	454
Total Demands	7,778	3,921

Notes:
(a) Volumes shown are actual deliveries.
(b) 2010 Data provided by BCVWD; 2015 data from BCVWD 2015 UWMP.
(c) Data from retailer 2015 UWMPs.

2.4.1 Historical Other Water Uses

In general, distribution systems experience system losses, being the difference between the amount of water supplied and the amount of authorized consumption. New legislation requires the analysis for the 2015 UWMP to include the reporting of distribution system water loss for the most recent 12-month period available. For future UWMP updates (i.e., 2020, 2025, etc.) the distribution system water loss shall be quantified for each of the five years preceding the plan update. It should be noted that recent legislation requires that as of January 1, 2017, distribution water loss must be reported on an annual basis. The data from these audits will be reported in future UWMP cycles.

SGPWA does not own or operate a distribution system; the water received from the SWP goes directly into groundwater recharge without treatment or distribution. However, in compliance with UWMP guidelines, SGPWA completed a water audit using the American Water Works Association (AWWA) water audit tool (provided in Appendix E), which is summarized in Table 2-3.

TABLE 2-3
12 MONTH WATER LOSS AUDIT REPORT SUMMARY

Reporting Period Start Date	Volume of Water Loss (AFY)[(a)]
January 2015	5

Notes:
(a) Sum of real and apparent losses based on AWWA water audit software output.

The SGPWA does not have any other sales to other water agencies to report in this UWMP.

2.5 Projected Water Use, Sales to Other Agencies

Table 2-4, below, shows retail purveyor demands that reflect reasonably anticipated demands on SGPWA supplies through the planning period. The distribution of water demands by water use sectors was not performed in this wholesale UWMP, but is detailed in each of the retail water purveyors' UWMPs. These demands take into account non-SGPWA supplies available to retail purveyors, such as local groundwater, local surface water, recycled water, and other imported water sources.

As discussed in Section 2.4, only three retail agencies within the SGPWA service area had demands on SGPWA in 2015, as noted in their respective UWMPs. However, additional retail agencies within the service area such as SMWC, CWD, BHMWC, HVWD, MSWD, and the Morongo Band of Mission Indians may have demands on the SGPWA in the future. Collective demands from those entities are estimated at 5,000 AF by 2040, as shown in Table 2-4 under "Other". These estimates will be revised every five years as the UWMP is updated.

Table 2-5, below, shows the projected imported water demands on SGPWA through the planning period, based on the potential maximum that can be expected. Future retail purveyor demands on SGPWA may differ based on the availability and actual use of non-SGPWA supplies, as well as actual "Other" demands.

TABLE 2-4
PROJECTED WATER DEMANDS ON SGPWA (AF)

Agency Name	2020	2025	2030	2035	2040
BCVWD[(a)]	10,860	12,476	14,087	15,886	17,334
City of Banning[(b)]	-	501	1,344	2,237	2,718
YVWD[(c)]	1,809	1,967	2,162	2,391	2,644
Other[(d)]	500	1,600	2,800	3,900	5,000
Total Water Demands	**13,169**	**16,544**	**20,393**	**24,414**	**27,696**

Notes:

(a) These demands are calculated by subtracting total BCVWD demands (BCVWD 2015 UWMP Table 4-2) from total non-SGPWA supplies (BCVWD 2015 UWMP Table 6-26 less the assumed imported supply from SGPWA). The remainder is assumed to be the demand for SGPWA supplies only. For example, for year 2025 demands were 20,450 AF (Table 4-2). Total supply in 2025 was 20,881 AF (Table 6-26) less 12,907 AF (Table 6-26) assumed supply from SGPWA for 7,974 AF. Total adjusted supply 7,974 AF less total adjusted demand 20,450 is -12,476 AF; therefore 12,476 AF is the assumed demand for imported SGPWA supplies. This assumes that BCVWD will prioritize non-SGPWA supplies, hence using SGPWA imported water to meet demands in excess of non-SGPWA supplies. Drinking water and banking demands are lumped together for purposes of this table, as the split for these demands is unknown.

(b) These demands are calculated by subtracting total adjusted Banning demands (City of Banning 2015 UWMP Table 3-3 plus system water losses from Table 3-1) from total non-SGPWA supplies, (City of Banning 2015 UWMP Table 5-4 less the assumed 2,718 AF from SGPWA). The remainder is assumed to be the demand for SGPWA supplies only. For example, for year 2025 demands were 10,199 AF (Table 3-1) plus 1,122 AF system water loss (Table 3-2) for 11,321 AF. Total supply in 2025 was 13,538 AF (Table 5-4) less 2,718 AF assumed supply from SGPWA for 10,820 AF. Total adjusted supply 10,820 AF less total adjusted demand 11,321 is -501 AF; therefore 501 AF is the assumed demand for imported SGPWA supplies. It assumed that City of Banning demands shown in UWMP Table 3-3 are accurate and calculations assume that the City of Banning will prioritize non-SGPWA supplies, hence using SGPWA imported water to meet demands in excess of non-SGPWA supplies.

(c) Projected imported SGPWA supply needs to meet drinking water demands from the Yucaipa Valley Water Filtration Facility and drinking water demands (referred to in the SBVRUWMP as conjunctive use demands) from 2015 SBVRUWMP, Table 12-15.

(d) Conservative projections of future demand on SGPWA from agencies within the service area that do not have current demands on the Agency, including SMWC, CWD, BHMWC, HVWD, MSWD, and Morongo Band of Mission Indians. This value may increase through time as service area demands are re-evaluated.

TABLE 2-5
PROJECTED MAXIMUM WATER DEMANDS ON SGPWA (AF)

Agency Name	2020	2025	2030	2035	2040
BCVWD[(a)]					
Drinking Water Demands	10,150	11,127	12,503	13,843	15,362
Raw Water to Supplement Non-Potable Water	163	280	0	0	0
Banking Demands	1,000	1,500	2,000	2,500	2,500
City of Banning[(b)]	2,718	2,718	2,718	2,718	2,718
YVWD[(c)]					
Drinking Water Demands	609	767	962	1,191	1,444
Conjunctive Use Demands	1,200	1,200	1,200	1,200	1,200
New Development Supply Sustainability Program	2,504	3,040	3,596	4,344	3,407
Other[(d)]	500	1,600	2,800	3,900	5,000
Total Water Demands	**18,844**	**22,232**	**25,779**	**29,696**	**31,631**

Notes:
(a) From BCVWD 2015 UWMP, Table 6-26 (DWR Table 6-9).
(b) Total imported SGPWA supply projections from City of Banning 2015 UWMP; based on draft "Regional Water Allocation Agreement" for Water Imported by the SGPWA.
(c) Total imported SGPWA supply projections from 2015 SBVRUWMP, Table 12-15.
(d) Same as Table 2-4.

Table 2-5 shows demands on SGPWA that are considered to be potential maximum water demands, as they incorporate demand management assumptions beyond the need to only meet municipal demands, as described in the following.

BCVWD in its 2015 UWMP shows projections for SGPWA supplies needing to meet municipal demands, raw water demands to supplement non-potable water, and demands to meet groundwater banking needs. The demands are based on the District's 2015 Potable Water Master Plan Update. BVCWD intends to use imported SGPWA supplies to supplement groundwater recharge to build-up or maintain BCVWD's Beaumont Basin groundwater storage account. If imported water from SGPWA is not available in a given year, the District says no groundwater recharge would occur. But when imported water is available, any deficiencies from previous years would be "carried over" and made up (BCVWD 2015 UWMP pg. 4-8).

In its 2015 UWMP, the City of Banning shows projections for SGPWA supplies based on a draft "Regional Water Allocation Agreement for Water Imported by SGPWA." The draft allocation agreement states that the City of Banning would receive 27.3% of the SGPWA Annual Table A Amount allocation, assuming 58% SWP delivery reliability (City of Banning 2016). The draft allocation agreement has not been adopted by SGPWA. Those demands are shown in Table 2-5.

YVWD demand projections in its 2015 UWMP are based on various potential needs, including drinking water demands, conjunctive use demands for local water banking, and demands by new development projects as part of the District's "New Development Supply Sustainability Program." The sustainability program requires developers to purchase a 20-year water supply for each new house built, in order to ensure that long-term supplies will be available for new developments prior to construction. These sustainability demands would be contingent upon

availability of supplies and the timing of such supplies (J. Zoba, personal communication 2016). These demand projections are also shown as potential maximum demands in Table 2-5.

Demands shown in Tables 2-4 and 2-5 are anticipated demands in average/normal hydrologic years.

2.6 Demands in Dry Years

Tables 2-6 through 2-9 show anticipated retail water demands on SGPWA in single-dry and multiple-dry years.

TABLE 2-6
PROJECTED WATER DEMANDS ON SGPWA – SINGLE-DRY YEAR (AF)

Agency Name	2020	2025	2030	2035	2040
BCVWD[(a)]	520	570	630	690	770
City of Banning[(b)]	-	501	1,344	2,237	2,718
YVWD[(c)]	600	600	700	700	700
Other[(d)]	500	1,600	2,800	3,900	5,000
Total Water Demands	**1,620**	**3,271**	**5,474**	**7,527**	**9,188**

Notes:
(a) From BCVWD 2015 UWMP, Table 7-9.
(b) City of Banning dry year supplies and demands are the same as normal years (City of Banning 2015 UWMP Tables 6-4 to 6-6). Demands here are the same as water demands for normal years (Table 2-4).
(c) YVWD demand projections in dry years are based on demands shown in the YVWD 2015 UWMP, Table 12-18, and assuming 10% of all of YVWD's demands are met through SGPWA.2
(d) Projections of future demand from "other" agencies is assumed to be the same as during normal/average water years.

TABLE 2-7
PROJECTED MAXIMUM WATER DEMANDS ON SGPWA – SINGLE-DRY YEAR (AF)

Agency Name	2020	2025	2030	2035	2040
BCVWD[(a)]	520	570	630	690	770
City of Banning[(b)]	2,718	2,718	2,718	2,718	2,718
YVWD[(c)]	600	600	700	700	700
Other[(d)]	500	1,600	2,800	3,900	5,000
Total Water Demands	**4,338**	**5,488**	**6,848**	**8,008**	**9,188**

Notes:

(a) From BCVWD 2015 UWMP, Table 7-9.

(b) City of Banning dry year supplies and demands are the same as normal years (City of Banning 2015 UWMP Tables 6-4 to 6-6). Demands here are the same as projected maximum water demands for normal years (Table 2-5).

(c) YVWD demand projections in dry years are based on demands shown in the YVWD 2015 UWMP, Table 12-18, and assuming 10% of all of YVWD's demands are met through SGPWA.[3]

(d) Projections of future demand from "other" agencies is assumed to be the same as during normal/average water years.

TABLE 2-8
PROJECTED WATER DEMANDS ON SGPWA – MULTIPLE-DRY YEAR (AF)

Agency Name	2020	2025	2030	2035	2040
BCVWD[(a)]	2,060	2,280	2,500	2,780	3,070
City of Banning[(b)]	-	501	1,344	2,237	2,718
YVWD[(c)]	600	600	700	700	700
Other[(d)]	500	1,600	2,800	3,900	5,000
Total Water Demands	**3,160**	**4,981**	**7,344**	**9,617**	**11,488**

Notes:

(a) From BCVWD 2015 UWMP, Table 7-11 and Appendix C UWMP Table 7-4, three-year extended dry period.

(b) City of Banning dry year supplies and demands are the same as normal years (City of Banning 2015 UWMP Tables 6-4 to 6-6). Demands here are the same as water demands for normal years (Table 2-4).

(c) YVWD demand projections in dry years are based on demands shown in the YVWD 2015 UWMP, Table 12-18, and assuming 10% of all of YVWD's demands are met through SGPWA.3

(d) Projections of future demand from "other" agencies is assumed to be the same as during normal/average water years.

[3] Approximately 10% of YVWD's supplies are provided by SGPWA; the remaining 90% is supplied by SBVMWD.

TABLE 2-9
PROJECTED MAXIMUM WATER DEMANDS ON SGPWA – MULTIPLE-DRY YEAR (AF)

Agency Name	2020	2025	2030	2035	2040
BCVWD[(a)]	2,060	2,280	2,500	2,780	3,070
City of Banning[(b)]	2,718	2,718	2,718	2,718	2,718
YVWD[(c)]	600	600	700	700	700
Other[(d)]	500	1,600	2,800	3,900	5,000
Total Water Demands	**5,878**	**7,198**	**8,718**	**10,098**	**11,488**

Notes:

(a) From BCVWD 2015 UWMP, Table 7-11 and Appendix C UWMP Table 7-4, three-year extended dry period..

(b) City of Banning dry year supplies and demands are the same as normal years (City of Banning 2015 UWMP Tables 6-4 to 6-6). Demands here are the same as potential maximum water demands for normal years (Table 2-5).

(c) YVWD demand projections in dry years are based on demands shown in the YVWD 2015 UWMP, Table 12-18, and assuming 10% of all of YVWD's demands are met through SGPWA.3

(d) Projections of future demand from "other" agencies is assumed to be the same as during normal/average water years.

2.7 Conservation Effects on Water Usage

Major factors that can affect water usage include weather and demand reducing behaviors. Historically, when the weather is hot and dry, water usage generally increases. The amount of increase varies according to the number of consecutive years of hot, dry weather and the conservation activities imposed. During cool, wet years, water usage generally decreases, reflecting less water usage for exterior landscaping.

In recent years, water conservation has become an increasingly important factor in water supply planning and management in California. Over the past ten years there have been a number of regulatory changes related to conservation including new standards for plumbing fixtures, a new landscape ordinance, a state universal retrofit ordinance, new Green Building standards, mandatory demand reduction goals and more. The California plumbing code has also instituted requirements for new construction that mandate the installation of ultra-low-flow toilets and low-flow showerheads.

During the 1987 to 1992 drought period, overall demands due to the effects of hot, dry weather were projected to increase by approximately ten percent. As a result of extraordinary conservation measures enacted during the period, the overall water demand actually decreased by more than ten percent.

During the current drought, Governor Brown issued a January 2014 drought proclamation and April 2014 emergency declaration, calling on urban water suppliers to implement their local water shortage contingency plans. In April 2015, following the lowest snowpack ever recorded, Governor Brown directed the SWRCB to implement mandatory water reductions to reduce water usage by 25 percent.

In May 2015, the SWRCB adopted an emergency regulation requiring an immediate 25 percent reduction in overall potable urban water use. (See SWRCB Resolution No. 2015-0032.) The SWRCB began to track water conservation for each of the state's larger urban retail water suppliers (those with more than 3,000 connections) on a monthly basis; compliance with individual water supplier conservation requirements and the statewide 25 percent mandate is based on cumulative savings.

In February 2016, the SWRCB approved an updated and extended emergency regulation that will continue mandatory reductions through October 2016, unless revised before then. The extended regulation provides more flexibility to urban water suppliers in meeting their conservation requirements and provides credits for certain factors that affect water use such as hotter-than-average climates, population growth, and significant investments in new local drought resilient water sources such as recycled water. Locally, these mandates translated into water conservation standards ranging from 28 to 36 percent for the retail purveyors.

In 2015, the three retailers (BCVWD, City of Banning, and YVWD) reduced their total groundwater production by 24.5% over the previous year (2014). Assuming the focus on conservation continues it is conceivable that demands would continue to be reduced.

On May 18, 2016, the SWRCB adopted a new approach, which replaced the percentage reduction-based water conservation standard with a localized "stress test" approach. The new approach mandated urban water suppliers to ensure a three year supply of water under drought conditions. The regulation requires locally developed conservation standards based on each agency's specific circumstances and is currently in effect through January 2017.

In addition to, and in combination with, statewide regulations and mandates, demand management measures implemented by SGPWA and purveyors are contributing to increased water conservation in the service area. Details on ongoing and future water conservation actions are provided in Section 7, Demand Management Measures.

2.8 SBX7-7 Baseline and Targets

This section is not required for SGPWA as a wholesale water supplier. Measures, programs, and policies that SGPWA has adopted to help the retail water suppliers within its service area to achieve their SBX7-7 water use reduction targets are discussed in Section 7.

Section 3: Water Resources

3.1 Overview

This section describes the water resources available to SGPWA for the 25-year period covered by the Plan and provides a high-level overview of the local water supplies used by purveyors within the SGPWA service area. SGPWA receives exclusively water supplies from the SWP to meet purveyor demands. Retail agencies within the SGPWA service area also use local water supplies, including surface water, groundwater, and recycled water. SGPWA supplies are summarized in Table 3-1 and discussed in more detail below.

TABLE 3-1
SUMMARY OF CURRENT AND PLANNED WATER SUPPLIES (AFY)

Water Supply Source	2015	2020	2025	2030	2035	2040
Existing Supplies						
Imported SWP[(a)]	10,700	10,700	10,700	10,700	10,700	10,700
Yuba Accord[(b)]	300	300	300	300	300	300
Total Existing Supplies	**11,000**	**11,000**	**11,000**	**11,000**	**11,000**	**11,000**
Planned Supplies						
SBVMWD Purchased Supply[(c)]	-	2,000	2,000	2,000	2,000	2,000
Available Purchases of Supply[(d)]	-	1,500	3,800	7,700	11,700	15,000
Total Planned Supplies	-	**3,500**	**5,800**	**9,700**	**13,700**	**17,000**
Total Existing and Planned Supplies	**11,000**	**14,500**	**16,800**	**20,700**	**24,700**	**28,000**

Notes: Values are rounded to the nearest hundred.

(a) Assumes 62% of Table A amount (17,300 AFY) based on the California Department of Water Resources Final Delivery Capability Report 2015 (DWR 2015 DCR).

(b) See Section 3.2.4.1.

(c) An average of 2,000 AF is assumed over a five year period through a future agreement with SBVMWD. See Section 3.3.1.2.

(d) The Agency has a financial plan in place to obtain additional supplies necessary to meet projected demands within its service area (shown in Table 2-5). These future supplies are described in Section 3.3. Sources include the dry-year water purchase program, exchanges with CLAWA, and other supplemental water as available. The Agency is expected to purchase additional supplies by 2020 in order to meet demands shown in Table 2-5. Volumes shown assume the DWR 2015 DCR average reliability of 62%.

This section assesses supplies in an average year, a single dry year, and during multiple dry years.

- An average year (also called a normal year) is the average supply over a range of years and represents the median water supply available to SGPWA.
- The single-dry year is the year that represents the lowest water supply available to SGPWA.
- The multiple-dry year period is the lowest average water supply available to SGPWA for three or more consecutive dry years.

The term "dry" is used throughout this section and in subsequent sections concerning water resources and reliability as a measure of supply availability. As used in this Plan, dry years are those years when supplies are the lowest and demands are the highest, which occurs primarily when precipitation is lower than the long-term average precipitation. The impact of low precipitation in a given year on a particular source of supply may differ based on how low the precipitation is, or whether the year follows a high-precipitation year or another low-precipitation year. For the SWP, a low-precipitation year may or may not affect supplies, depending on how much water is in SWP storage at the beginning of the year. Also, dry conditions can differ geographically. For example, a dry year can be local to the San Gorgonio Pass Area (thereby affecting local groundwater replenishment and production), local to northern California (thereby affecting SWP water deliveries), or statewide (thereby affecting both local groundwater and the SWP). When the term "dry" is used in this Plan, statewide drought conditions are assumed, affecting both local groundwater and SWP supplies at the same time.

3.2 Imported Water Supplies

3.2.1 SWP Facilities

Water supplies available to SGPWA are imported from the SWP – the largest state-built, multi-purpose water project in the country. It was authorized by the California State Legislature in 1959, with the construction of most facilities completed by 1973. Today, the SWP includes 28 dams and reservoirs, 26 pumping and generating plants, and approximately 660 miles of aqueducts. The primary water source for the SWP is the Feather River, a tributary of the Sacramento River. Storage released from Oroville Dam on the Feather River flows down natural river channels to the Sacramento-San Joaquin River Delta (Delta). While some SWP supplies are pumped from the northern Delta into the North Bay Aqueduct, the vast majority of SWP supplies are pumped from the southern Delta into the 444-mile-long California Aqueduct. The California Aqueduct conveys water along the west side of the San Joaquin Valley to Edmonston Pumping Plant, where water is pumped over the Tehachapi Mountains and the California Aqueduct then divides into the East and West Branches. SGPWA delivers its SWP supplies through the East Branch to use within the local groundwater basins through extensive transmission pipeline systems and direct releases from Silverwood Lake, a SWP regulating reservoir.

3.2.2 SWP Supplies Available to SGPWA

In the early 1960s, DWR began entering into individual SWP Water Supply Contracts with urban and agricultural public water supply agencies located throughout northern, central, and southern California for SWP water supplies. SGPWA is one of 29 water agencies (commonly referred to as “contractors”) that have a SWP Water Supply Contract with DWR.

The SWP Contracts entered into in the 1960s had initial 75-year terms, which thus would begin to expire in 2035. While the SWP Contracts provide for continued water service to the contractors beyond the initial term, efforts are currently underway to extend the SWP Contracts to improve financing for the SWP.

Negotiations on extending the SWP Contracts took place between DWR and the contractors during 2013 and 2014, and were open to the public. The following terms were agreed to and

are currently the subject of analysis under the requirements of the California Environmental Quality Act (CEQA) (Notice of Preparation dated September 12, 2014):

- Extend the term of the 29 SWP Contracts to December 31, 2085.
- Provide for increased SWP financial operating reserves during the extended term of the SWP Contracts.
- Provide additional funding mechanisms and accounts to address SWP needs and purposes.
- Develop a revised payment methodology with a corresponding billing system that better matches the timing of future SWP revenues to future expenditures.

It is anticipated that the term of the SWP Contracts will be extended to December 31, 2085. The Contracts and associated amendments are scheduled to be finalized summer 2017. To improve coordination between supply and demand projections beyond the year 2035, the data and information contained in this UWMP reflect that assumption, as provided in the Urban Water Management Planning Act. (CWC Section 10631(b).)

Each SWP contractor's SWP Water Supply Contract contains a "Table A," which lists the maximum amount of water an agency may request each year throughout the life of the contract. Table A is used in determining each contractor's proportionate share, or "allocation," of the total SWP water supply DWR determines to be available each year. The total planned annual delivery capability of the SWP and the sum of all contractors' maximum Table A amounts was originally 4.23 million acre-feet (AF). The initial SWP storage facilities were designed to meet contractors' water demands in the early years of the SWP, with the construction of additional storage facilities planned as demands increased. However, essentially no additional SWP storage facilities have been constructed since the early 1970s. SWP conveyance facilities were generally designed and have been constructed to deliver maximum Table A amounts to all contractors. After the permanent retirement of some Table A amount by two agricultural contractors in 1996, the maximum Table A amounts of all SWP contractors now totals about 4.17 million AF.

While Table A identifies the maximum annual amount of water an SWP contractor may request, the amount of SWP water actually available and allocated to SWP contractors each year is dependent on a number of factors and can vary significantly from year to year. The primary factors affecting SWP supply availability include hydrology, the amount of water in SWP storage at the beginning of the year, regulatory and operational constraints, and the total amount of water requested by SWP contractors.

According to the water supply contract between DWR and the SGPWA, SGPWA's maximum annual entitlement from the SWP ("Table A Amount") is 17,300 AFY. Table 3-2 presents historical SWP deliveries to SGPWA.

TABLE 3-2
HISTORICAL SWP DELIVERIES TO SGPWA

Year	Deliveries (AFY)
2003	116
2004	814
2005	687
2006	4,420
2007	4,815
2008	4,905
2009	6,609
2010	8,403
2011	10,730
2012	10,974
2013	9,695
2014	5,131
2015	3,930

Notes:
(a) Source: 2014 San Gorgonio Pass Water Agency Report on Water Conditions; 2015 data provided by SGPWA.

In addition to Table A supplies, the SWP Contracts provide for additional types of water that may periodically be available, including "Article 21" water and Turnback Pool water. Article 21 water (which refers to the SWP Contract provision defining this supply) is water that may be made available by DWR when excess flows are available in the Delta (i.e., when Delta outflow requirements have been met, SWP storage south of the Delta is full and conveyance capacity is available beyond that being used for SWP operations and delivery of allocated and scheduled Table A supplies). Article 21 water is made available on an unscheduled and interruptible basis and is typically available only in average to wet years, generally only for a limited time in the late winter. The Turnback Pool is a program through which contractors with allocated Table A supplies in excess of their needs in a given year may "turn back" that excess supply for purchase by other contractors who need additional supplies that year. The Turnback Pool can make water available in all types of hydrologic years, although generally less excess water is turned back in dry years. As urban contractor demands have increased, the amount of water turned back and available for purchase has diminished.

The availability of Article 21 water and Turnback Pool water is uncertain. When available, these supplies provide additional water that SGPWA may be able to use, either directly to meet demands or for later use after storage in its groundwater banking programs. Due to the uncertainty in availability of Article 21 water and Turnback Pool water, supplies of these types of SWP water are not included in this report. However, to the extent SGPWA is able to make use of these supplies when available, SGPWA may be able to improve the reliability of its SWP supplies beyond the values used throughout this Plan.

While not specifically provided for in the SWP Contracts, DWR has in critically dry years created Dry Year Water Purchase Programs for contractors needing additional supplies. Through these programs, water is purchased by DWR from willing sellers in areas that have available supplies and is then sold by DWR to agencies willing to purchase those supplies. The availability of these supplies is generally uncertain. However, SGPWA's access to these supplies when they

are available would enable it to improve the reliability of its dry-year supplies beyond the values used throughout this report.

3.2.3 Factors Affecting SWP Table A Supplies

Primary factors affecting SWP supply availability include: the availability of water at the source of supply in northern California, the ability to transport that water from the source to the primary SWP diversion point in the southern Delta and the magnitude of total contractor demand for that water, as summarized below.

Availability of SWP Source Water

SWP supplies originate in northern California, primarily from the Feather River watershed. The availability of these supplies is dependent on the amount of precipitation in the watershed, the amount of that precipitation that runs off into the Feather River, water use by others in the watershed and the amount of water in storage in the SWP's Lake Oroville at the beginning of the year. Variability in the location, timing, amount and form (rain or snow) of precipitation, as well as how wet or dry the previous year was, produces variability from year to year in the amount of water that flows into Lake Oroville. However, Lake Oroville acts to regulate some of that variability, storing high inflows in wetter years that can be used to supplement supplies in dry years with lower inflows.

As discussed in Section 1.8 and in DWR's 2015 State Water Project Delivery Capability Report (2015 DCR), climate change adds another layer of uncertainty in estimating the future availability of SWP source water. Current literature suggests that global warming may change precipitation patterns in California from the patterns that occurred historically. While different climate change models show differing effects, potential changes could include more precipitation falling in the form of rain rather than snow and earlier snowmelt, which would result in more runoff occurring in the winter rather than spread out over the winter and spring.

Ability to Convey SWP Source Water

As discussed previously, water released from Lake Oroville flows down natural river channels into the Delta. The Delta is a network of channels and reclaimed islands at the confluence of the Sacramento and San Joaquin rivers. The SWP and the federal Central Valley Project (CVP) use Delta channels to convey water to the southern Delta for diversion, making the Delta a focal point for water distribution throughout the state.

A number of issues affecting the Delta can impact the ability to divert water supplies from the Delta, including water quality, fishery protection and levee system integrity. Water quality in the Delta can be adversely affected by both SWP and CVP diversions, which primarily affect salinity, as well as by urban discharge and agricultural runoff that flows into the Delta, which can increase concentrations of constituents such as mercury, organic carbon, selenium, pesticides, and toxic pollutants, and reduce dissolved oxygen. The Delta also provides a unique estuarine habitat for many resident and migratory fish species, some of which are listed as threatened or endangered. The decline in some fish populations is likely the result of a number of factors, including water diversions, habitat destruction, degraded water quality and the introduction of non-native species. Delta islands are protected from flooding by an extensive levee system.

Levee failure and subsequent island flooding can lead to increased salinity requiring the temporary shutdown of SWP pumps.

In order to address some of these issues, SWP and CVP operations in the Delta are limited by a number of regulatory and operational constraints. These constraints are primarily incorporated into the SWRCB Water Rights Decision 1641 (D-1641), which establishes Delta water quality standards and outflow requirements that the SWP and CVP must comply with. In addition, SWP and CVP operations are further constrained by requirements included in Biological Opinions (BOs) for the protection of threatened and endangered fish species in the Delta, issued by the United States Fish and Wildlife Service (FWS) in December 2008 and the National Marine Fishery Service (NMFS) in June 2009. The requirements in the BOs are based on real-time physical and biological phenomena (such as turbidity, water temperature and location of fish), which results in uncertainty in estimating potential impacts on supply of the additional constraints imposed by the BOs.

Demand for SWP Water

The reliability of SWP supplies is affected by the total amount of water requested and used by SWP contractors, since an increase in total requests increases the competition for limited SWP supplies. As previously mentioned, contractor Table A Amounts in the SWP Contracts ramped up over time, based on projected increases in population and water demand at the time the contracts were signed. Urban SWP contractors' requests for SWP water were low in the early years of the SWP, but have increased steadily over time, although more slowly than the ramp-up in their Table A Amounts, which reached a maximum for most contractors in the early to mid-1990s. Since that time, urban contractors' requests for SWP water have continued to increase until recent years when nearly all SWP contractors are requesting their maximum Table A Amounts.

Consistent with other urban SWP contractors, SWP deliveries to SGPWA have increased as its requests for SWP water have increased. Historical total SWP deliveries to SGPWA are shown in Table 3-2.

3.2.3.1 SWP Table A Supply Assessment

DWR prepares a biennial report to assist SWP contractors and local planners in assessing the near and long-term availability of supplies from the SWP. DWR issued its most recent update, the 2015 DWR SWP Delivery Capability Report (2015 DCR), in July 2015. In the 2015 DCR, DWR provides SWP supply estimates for SWP contractors to use in their planning efforts, including for use in their 2015 UWMPs.

3.2.3.1.1 Analysis Assumptions

DWR's estimates of SWP deliveries are based on a computer model that simulates monthly operations of the SWP and CVP systems. Key assumptions and inputs to the model include the facilities included in the system, hydrologic inflows to the system, regulatory and operational constraints on system operations, and projected contractor demands for SWP water.

In the 2015 DCR, DWR uses the following assumptions to model current conditions: existing facilities; hydrologic inflows to the model based on 82 years of historical inflows (1922 through 2003), adjusted to reflect current levels of development in the supply source areas; current regulatory and operational constraints, including D-1641, the 2008 FWS BO, and the 2009 NMFS BO; and contractor demands for SWP water at maximum Table A Amounts.

To evaluate SWP supply availability under future conditions, the 2015 DCR included four model studies. The first of the future-conditions studies, the Early Long Term (ELT) scenario, used all of the same model assumptions for current conditions, but reflected changes expected to occur from climate change, specifically, a 2025 emission level and a 15 cm sea level rise. The other three future-conditions studies also include varying model assumptions related to the Bay Delta Conservation Plan (BDCP)/California Water Fix (Cal WaterFix), such as changes to facilities and/or regulatory and operational constraints.

BDCP/Cal WaterFix plans are currently in flux, environmental review is ongoing, and several regulatory and legal requirements must be met prior to any construction.

This UWMP uses the ELT scenario to estimate future SWP supply availability because it is based on existing facilities and regulatory constraints, with hydrology adjusted for the expected effects of climate change. This scenario is consistent with the studies DWR has used in its previous SWP Delivery Reliability Reports for supply availability under future conditions. Therefore, in this UWMP, future SWP supply availability is based on the ELT study included in the 2015 DCR.

3.2.3.1.2 Analysis Results

In the 2015 DCR, DWR estimates that for all contractors combined, the SWP can deliver on a long-term average basis a total Table A supply of 62 percent of total maximum Table A Amounts. In the worst-case single critically dry year, DWR estimates the SWP can deliver a total Table A supply of 11 percent of total maximum Table A Amounts. DWR estimates the SWP can deliver a total Table A supply during a four-year dry period averaging 33 percent of total maximum Table A Amounts.

DWR's analysis of current (2015) conditions is used in this Plan to estimate 2015 SWP supplies and its analysis of future (2035) conditions is used to estimate 2035-2050 SWP supplies. As has been suggested by DWR, SWP supplies for the five-year increments between 2015 and 2035 are interpolated between these values. SWP supplies for years beyond 2035 are assumed to be the same as for 2035.

The extremely dry sequence from the beginning of January 2013 through the end of 2015 was one of the driest two-year periods in the historical record. Water year 2013 was a year with two hydrologic extremes.[4] October through December 2012 was one of the wettest fall periods on record, but was followed by the driest consecutive 12 months on record. Accordingly, the 2013 SWP supply allocation was a low 35 percent of SWP Table A Amounts. The 2013 hydrology ended up being even drier than DWR's conservative hydrologic forecast, so the SWP began 2014 with reservoir storage lower than targeted levels and less stored water available for 2014

[4] A water year begins in October and runs through September. For example, water year 2013 is October 2012 through September 2013.

supplies. Compounding this low storage situation, 2014 also was an extremely dry year, with runoff for water year 2014 the fourth driest on record. Due to extraordinarily dry conditions in 2013 and 2014, the 2014 SWP water supply allocation was a historically low 5 percent of Table A Amounts. The dry hydrologic conditions that led to the low 2014 SWP water supply allocation were extremely unusual, and to date this hydrology has not been included in the SWP delivery estimates presented in DWR's 2015 DCR. It is anticipated that the hydrologic record used in the DWR model will be extended to include the period through 2014 during the next update of the model, which is expected to be completed prior to issuance of the next update to the biennial DCR. For purposes of this UWMP, the historical single dry year of 1977 is used to estimate single dry year supplies; however the worst-case scenario seen in 2014 is also calculated.

Table 3-3 shows SWP supplies projected to be available to SGPWA in average/normal years, a single dry year, and over a multiple dry year period, based on the supply reliability analyses provided in the 2015 DCR.

TABLE 3-3

SWP TABLE A AMOUNT SUPPLY RELIABILITY (AF)[a]

SWP Supply	2020	2025	2030	2035	2040
Average Water Year[b]					
Table A Supply	10,700	10,700	10,700	10,700	10,700
% of Table A Amount[c]	62%	62%	62%	62%	62%
Single Dry Year[d]					
Table A Supply	1,900	1,900	1,900	1,900	1,900
% of Table A Amount[c]	11%	11%	11%	11%	11%
Worst-Case Single Dry Year[e]					
Table A Supply	900	900	900	900	900
% of Table A Amount[c]	5%	5%	5%	5%	5%
Multi-Dry Year[f]					
Table A Supply	5,700	5,700	5,700	5,700	5,700
% of Table A Amount[c]	33%	33%	33%	33%	33%

Notes: Values rounded to nearest hundred.

(a) Projected SWP supplies to SGPWA based on analyses presented in DWR's "2015 Delivery Capability Report (DCR)."
(b) Based on average deliveries over the DCR's historic hydrologic period of 1921 through 2003.
(c) Supply as a percentage of SGPWA's Table A Amount of 17,300 AF.
(d) Based on a repeat of the worst case historic single dry year of 1977 (from DWR 2015 DCR).
(e) Based on the worst-case actual allocation of 2014 of 5%.
(f) Supplies are annual averages over four consecutive dry years, based on the historic four-year dry period of 1931-1934.

3.2.3.1.1 Potential Future SWP Supplies

An ongoing planning effort to increase long-term supply reliability for both the SWP and CVP is taking place through the California Water Fix and EcoRestore (Cal Water Fix) process. The co-equal goals of the Cal Water Fix are to improve water supply reliability and restore the Delta ecosystem. The Cal Water Fix is being prepared through a collaboration of state, federal and local water agencies, state and federal fish agencies, environmental organizations and other interested parties. Several "isolated conveyance system" alternatives are being considered in the plan that would divert water from the north Delta to the south Delta where water is pumped

into the south-of-Delta stretches of the SWP and CVP. The new conveyance facilities would allow for greater flexibility in balancing the needs of the estuary with the reliability of water supplies. The plan could also provide other benefits, such as reducing the risk of long outages from Delta levee failures.

Cal Water Fix has been in development since 2006, initially as the BDCP and is currently undergoing extensive environmental review. The Draft BDCP and its associated Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) were released for public review in December 2013. In response to public comments, the Cal Water Fix was reevaluated, and in April 2015 the lead agencies announced a modified alternative which effectively split the project into two parts: the conveyance portion (known as Cal WaterFix), and the restoration portion (known as EcoRestore). The Cal WaterFix alternative is evaluated in a partially recirculated draft environmental document (Recirculated Draft EIR/Supplemental Draft EIR) that was released for public review in July 2015. That environmental document is not anticipated to be final until at least 2016.

While there is support for the BDCP/Cal WaterFix project, plans are currently in flux and environmental review is ongoing. Additionally, several regulatory and legal requirements must be met prior to any construction. Because of this uncertainty, any improvements in SWP supply reliability or other benefits that could result from this proposed project are not included in this Plan.

3.2.4 Other Imported Supplies

3.2.4.1 Yuba Accord Water

SGPWA entered into the Yuba Accord Agreement (Appendix F), which allows for the purchase of water from the Yuba County Water Agency through DWR to 21 SWP contractors (including SGPWA) and the San Luis and Delta- Mendota Water Authority. Yuba Accord water comes from north of the Delta, and the water purchased under this agreement is subject to losses associated with transporting it through the Delta. While the amount of this water varies each year depending on hydrologic conditions, the average amount that the Agency has received has been approximately 300 AFY. The Agency recently signed an extension to this agreement allowing it to purchase this water well into the future.

3.2.4.2 Multi-Year Pool Demonstration Project

In 2013, DWR and the State Water Contractors developed a multi-year pool in which Contractors could purchase unused Table A water from a pool formed by several Contractors. The price of this water varied on a sliding scale depending on hydrologic conditions. The Agency, through this program, purchased 1,000 AF of water and delivered it to retail water agencies in its service area. This is not a long-term reliable supply and is only available in some years.

3.2.5 SGPWA SWP Supply Facilities

3.2.5.1 Conveyance

SGPWA receives SWP supplies via the East Branch Extension of the SWP. The East Branch Extension begins at Devil Canyon Power Plant in San Bernardino and ends in Cherry Valley. Efforts to increase the conveyance capacity of the East Branch extension to 48 cubic feet per second (CFS) are currently ongoing, with construction scheduled to be complete by the end of 2016 and startup testing to be concluded in the first half of 2017. This East Branch Extension, Phase 2 project will provide the additional capacity necessary to convey the full allocation of SWP supplies, as available.

SGPWA plans to purchase an additional 16 CFS of capacity from the East Branch Extension Phase 2 expansion from SBVMWD, bringing the conveyance capacity to 64 CFS or approximately 35,000 AFY at a 75 percent frequency of operation, sufficient to meet regional demand through 2035, assuming SGPWA obtains supplemental sources of imported water.

3.2.5.2 Treatment

SWP supplies delivered to the SGPWA service area are treated at the Yucaipa Valley Regional Water Filtration Facility (YVRWFF), with a capacity of 12 million gallons per day (MGD). Treated water from the YVRWFF is used to meet demands in both the SBVMWD and SGPWA service areas.

3.3 Transfers, Exchanges, and Groundwater Banking Programs

In addition to existing SWP water supplies, SGPWA is currently exploring opportunities to purchase water supplies from other water agencies and sources. Transfers, exchanges, and groundwater banking programs, such as those described below, are important elements to enhancing the long-term reliability of the total mix of supplies currently available to meet water demand.

3.3.1.1 Exchanges

Since 2010, the Agency has been involved in three exchanges with the Crestline-Lake Arrowhead Water Agency (CLAWA). In 2010, the Agency received 1,000 AF of CLAWA's Table A amount in exchange for a like amount to be returned by 2020. In 2013, the Agency received 2,000 AF of CLAWA's Table A amount in exchange for 1,300 AF to be returned by 2023. In 2016 the Agency is receiving 1,200 AF of CLAWA's Table A amount in exchange for 600 AF to be returned by 2026. The latter two exchanges are unbalanced exchanges approved by DWR.

3.3.1.2 Purchases

The Agency has a number of plans to procure additional water supplies. The Agency is currently in final negotiations with the SBVMWD to purchase up to 5,000 AF of its Table A water in years in which SBVMWD's Board declares a surplus. Based on past hydrologic conditions, that is likely to occur approximately two years out of every five. Thus, on the average, this will

amount to approximately 2,000 AFY. The SBVMWD Board of Directors has approved the concept; both Boards still need to approve the final terms, which should be finalized in calendar year 2017. This supply is reflected in Table 3-1. The term of this agreement is expected to be at least 20 years.

The Agency's Board has committed to keeping ahead of the regional water demand curve and implementation of the capacity fee will enable it to do so financially. The Agency has updated a study identifying additional supplemental supplies that are for sale around the state, particularly south of the Delta, and will move quickly to negotiate a deal for one or more of these sales in 2016 or early 2017.

3.3.1.3 Other Supplies

The Agency's Board has voted to participate as an owner of capacity in the proposed Sites Reservoir project, and submitted a proposal to the Sites Joint Powers Association to that effect in July 2016. The proposal was for 14,000 acre-feet of yield from the reservoir. It is anticipated that this will be a long-term investment whose returns will not become tangible for at least 10 years, if at all.

In addition to these efforts, the Agency has completed the design of a conjunctive use storage facility in its service area that will enable it to take advantage of additional supplies, including Article 21 water from the SWP when available. The Agency has the funds on hand to construct this facility and will do so within the next few years. This will ensure that there is ample space to store all new water supplies procured by the Agency to meet the projected demands within its service area.

A summary of planned supplies is provided in Table 3-4.

TABLE 3-4

SUMMARY OF POTENTIAL WATER TRANSFER AND EXCHANGE OPPORTUNITIES FOR SGPWA

Supplemental Water Source	Description	Type and Reliability	Potential Partners
Table A Transfers	Purchase of Table A allocations from agencies with allocations in excess of demand	Permanent, 60%	Kern County Water Agency (KCWA); Tulare Lake Basin Water District; Dudley Ridge Water District; Empire West Side Irrigation District; MWDSC; San Bernardino Valley Municipal Water District
Kern River Exchanges	Water agencies obtain diversion rights from the Kern River, making available Table A SWP supplies for exchange	Permanent, 100%	Nickel Family Farms via KCWA exchange; Buena Vista Water Storage District (WSD) via Buena Vista WSD or Rosedale-Rio Bravo WSD exchange
Banked Groundwater Exchanges	Purchases of banked groundwater delivered in-lieu from unused Table A deliveries	Short-term, 100%	Rosedale-Rio Bravo WSD; Water agencies participating in the Semitropic WSD Groundwater Storage Program; Water agencies south of Edmonston Pumping Plant
Banked Groundwater Pumpback	Purchase of banked groundwater delivered via "pumpback" to the California aqueduct	Short-term, 100%	Rosedale-Rio Bravo WSD; Kern Delta Water District; Semitropic WSD Stored Water Recovery Unit
Excess SWP Purchases	Purchase excess SWP supply from SWP or water agencies with a surplus	Short-term, 100%	SWP Article 21; SWP Turnback Pool (Table A); San Bernardino Valley Municipal Water District; Crestline-Lake Arrowhead Water Agency; West Side San Joaquin Valley Districts
Dry Year Water Purchases or Transfer Programs	Purchase or transfer of unused water from water agencies with a surplus to water agencies requesting supplemental dry year supply	Short-term in dry years, 100%	SWP Contractors (buyers and sellers are treated as singular entities); SWP Turnback Pool (Table A); Western Canal Water District; Yuba County Water Agency Dry Year Water Transfer Program

Source: Provost & Pritchard, 2016.

3.3.2 Plans to Acquire Additional Supplies

As discussed in Section 3.3, the Agency is planning to develop a diverse portfolio of water supplies that include a mix of dry year supplies, SWP Table A allocation purchased from or exchanged with other SWP Contractors, purchase of surplus water from a neighboring State Water Contractor, and other supplemental water as available. The Agency has put a financial plan in place to purchase additional supplemental water supplies from various sources, including Table A water, riparian water rights, or other various sources. This financial plan includes four sources of revenue: withdrawal from reserves, dedication of a portion of general fund and *ad valorem* tax revenues as needed and appropriate, a component of the wholesale water rate, and a recently adopted capacity fee on new growth in the region. The Agency currently has $5.7 million in reserves to purchase new water rights.

In order to collect the capacity fee, the Agency would have to sign cooperative agreements with retail water agencies or land use planning agencies. In areas where the Agency can collect the fee, it is assuring its retail customers that it will have the financial resources to procure the needed additional water supplies. As this report is being written, the Agency is in final negotiations with the YVWD and the City of Calimesa to sign a cooperative agreement to enable it to collect the fee and thus assure future water supplies for the YVWD service area. Meeting future water demands within the service area of the City of Banning and the BCVWD will be more difficult until cooperative agreements are signed with these entities. In the meantime, the Agency still has some financial resources to use to procure additional water for these areas, including the sources listed above (with the exception of the capacity fee).

3.4 Groundwater

Local groundwater does not provide a source of water to SGPWA, however the predominant means of providing SWP supply to retail agencies is to recharge the Beaumont groundwater Basin. The storage capacity of the Beaumont Basin (adjudicated at 200,000 AF, practically estimated to be 100,000 AF) exceeds the total annual demand for water at build-out. Storage capacity is not likely to be a limiting factor for importing SWP supplies and any additional supplemental imported water. The capacity to store imported water in the Beaumont Basin by spreading water in recharge basins is a key component of SGPWA's role as a wholesaler of SWP supply.

It is noted that local runoff of surface water accounts for a small portion of local water resources utilized by the retail agencies. Most of this runoff is typically recharged into local groundwater basins where it becomes part of the groundwater supply. Storm water capture represents a potential new source of water within the service area, however it is not currently considered a large supply source. Capturing storm water would present a water quality benefit to the groundwater if recharged.

3.4.1 Groundwater Recharge Facilities

BCVWD's Noble Creek facility is used to recharge SWP deliveries. The facility consists of recharge basins (eight cells) with a long-term recharge capacity of approximately 20,000 – 30,000 AFY. SWP deliveries to this facility will consist of BCVWD's imported water supply requirements, plus any water purchased for long-term banking prior to completion of additional basins. BCVWD has recently completed Phase 2, increasing the capacity.

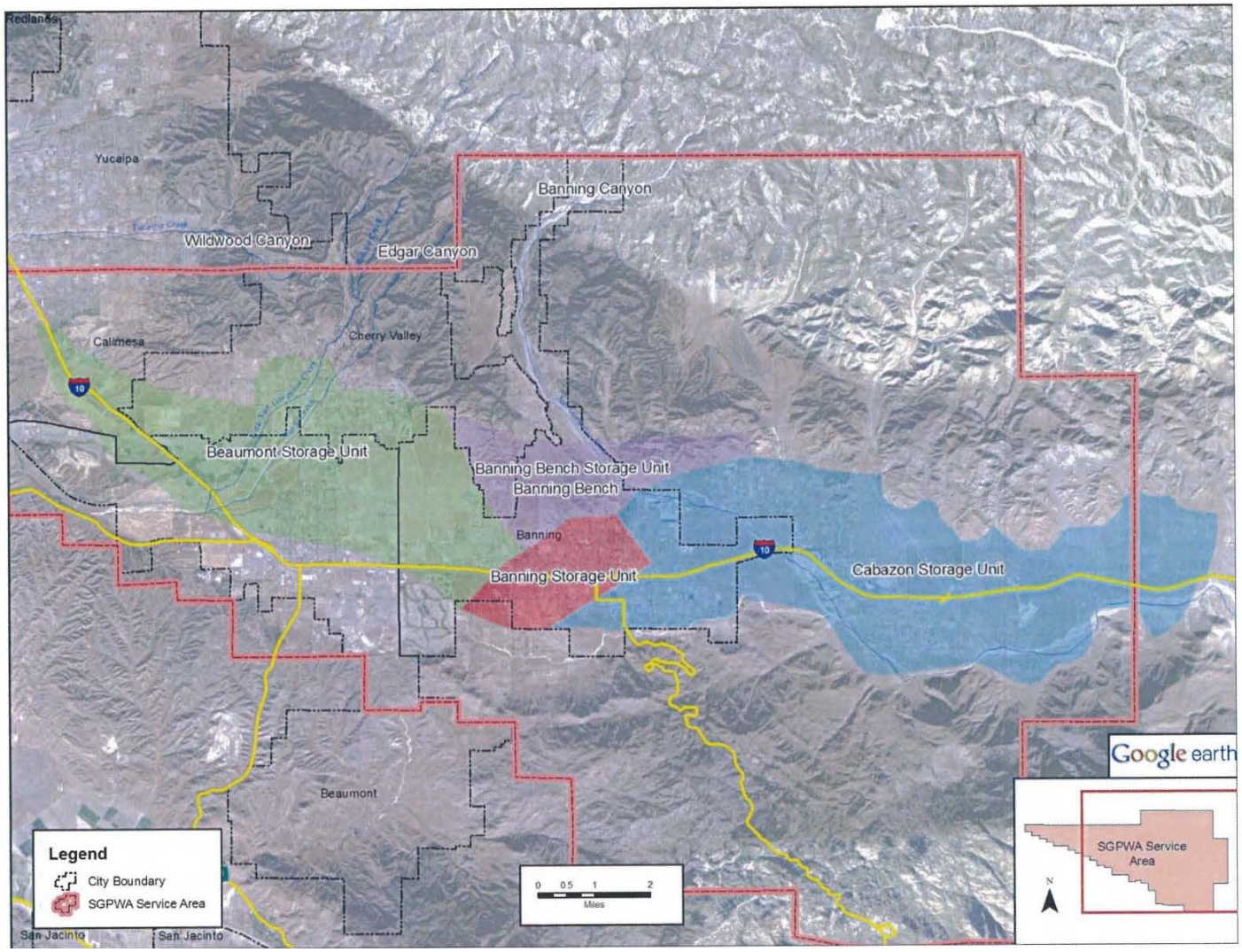
The Beaumont Avenue Recharge Facility, expected to be completed in 2017, enables SGPWA to import more water in wet years when available and to store it in the local groundwater basin. The facility consists of five large ponds, a pipeline connecting the ponds to the East Branch Extension and a new connection to the East Branch Extension.

3.4.2 Groundwater Basins

SGPWA is underlain by portions of two large groundwater basins, the Upper Santa Ana Valley Basin and Coachella Valley Basin, both of which are divided into subbasins. Of the many subbasins, three fall within the SGPWA boundaries, including the Yucaipa, San Timoteo, and San Gorgonio Pass Subbasins. The latter two subbasins are in turn divided into water storage

units, (also colloquially termed “basins”). The principal storage units and basins that are used by the water purveyors are the Beaumont, Banning, Yucaipa, and Cabazon groundwater basins. A summary of these local groundwater basins is provided below and shown on Figure 3-1. Details on basin characteristics, groundwater pumping, and basin management are provided in individual purveyor UWMPs.

FIGURE 3-1
GROUNDWATER BASINS WITH PUMPING BY SGPWA RETAIL AGENCIES



Source: SGPWA 2010 Urban Water Management Plan, prepared by CDM.

3.4.2.1 Beaumont Basin

The Beaumont Basin (storage unit) encompasses approximately 28 square miles and underlies the Cities of Calimesa, Beaumont, and Banning. Generally, hydro-geologic studies have identified major inflows to the Beaumont storage unit as runoff from Edgar Canyon (Little San Gorgonio and Noble Creeks) and from infiltration of rainfall within the groundwater basin boundary. The Beaumont Basin is the only adjudicated groundwater basin within the SGPWA service area. The Judgment for the adjudication (provided in Appendix G) allocates pumping rights to both overliers and appropriators, and provides guidelines for conversion of pumping rights from overliers to appropriators. Overliers are parties that own land overlying the Beaumont Basin and have exercised pumping rights. Appropriators are the water purveyors who serve water to serve demands within the Beaumont Basin, including the City of Banning, BCVWD, SMWC, and YVWD. Appropriators can obtain additional pumping rights from an overlier by providing water service, either potable or recycled. The Beaumont Basin Water Master develops annual projections of pumping rights conversion from overliers to appropriators.

According to the stipulated judgment, the long-term safe yield of the Basin is 8,650 AFY, recently (2013) updated to 6,700 AFY. Since 2003, SGPWA has purchased a portion of its Table A allocation to sell to retailers within its service area, including BCVWD, and the City of Banning.

3.4.2.2 Banning Groundwater Basin

The Banning Basin consists of the East Banning and West Banning storage units. The East Banning and Banning Bench storage units are separated from the West Banning storage unit by the McMullen fault (Bloyd 1971). The East Banning storage units encompass approximately 7 square miles and the West Banning storage unit encompasses approximately 4 square miles. The City of Banning is the only water purveyor that extracts water from the East Banning and West Banning storage units. The average of the estimated maximum perennial yield from the East Banning storage units is 1,050 AFY, and 350 AFY from the West Banning storage unit (Geoscience, 2003). Historical trends in water level have declined in the Banning groundwater basin, especially in the West Banning storage unit, where most well pumping occurs. The Banning groundwater basin is not adjudicated.

3.4.2.3 Yucaipa Basin

The Yucaipa Basin encompasses approximately 40 square miles and underlies the southeast part of San Bernardino Valley. The Basin is not adjudicated; sustainable yield is estimated to be approximately 9.600 AFY with a storage capacity of more than 800,000 AF (DWR Bulletin 118). Extractions from the basin are approximately 14,000 AFY (DWR Bulletin 118, California's Groundwater, 2004). DWR identifies the basin in overdraft in its Bulletin-118, however water levels have been historically rising. Moreover, the amount of groundwater pumping from the basin has significantly decreased being attributable to the supplemental supply of SWP and the use of recycled water.

The Basin is conjunctively managed by the Agency, SBVMWD, YVWD, SMWC, Western Heights Water Company, and the City of Yucaipa.

3.4.2.4 Cabazon Basin

The Cabazon Basin (storage unit) is located on the eastern boundary of SGPWA's service area. City of Banning, CWD, Mission Springs Water District, and the Morongo tribes rely on pumping from this basin to serve a portion of their respective water demands. The safe yield estimate of the Cabazon storage unit is estimated to be 1,770 AFY (Geoscience 2010).

3.4.2.5 Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA), passed in 2014, requires all groundwater basins in California to be managed sustainably by 2022. The legislation requires that a Groundwater Sustainability Plan (GSP) be prepared by 2022 in those basins the DWR has identified as medium to high priority. The San Gorgonio Pass, San Timoteo and Yucaipa Subbasins are listed as medium priority basins (per DWR's Final CASGEM Basin Prioritization Reports, June 2014). SGMA does not apply to basins that are managed through adjudication.

SGPWA is currently working with other water agencies that overly the San Gorgonio Pass Subbasin to develop a cooperative agreement to manage the subbasin in accordance with the legislation. The other agencies involved include Desert Water Agency, MSWD, HVWD, Morongo Band of Mission Indians, City of Banning, and BHMWC.

3.4.3 Recycled Water

The Agency does not provide supplemental treatment to recycled water and does not distribute recycled water, nor does the Agency have plans to provide recycled water as a part of its deliveries. As a result, UWMP Act Guideline Tables 6-3, 6-4 and 6-5 will not be completed.

The Cities of Beaumont and Banning, YVWD, and the Morongo Band of Mission Indians discharge treated wastewater within the SGPWA service area. The use of recycled water to offset potable water demands and for groundwater replenishment is a major component in the supply plans for most of the retail agencies and therefore is discussed briefly below.

BCVWD has an extensive non-potable water system, which provides non-potable water for landscape irrigation throughout the City of Beaumont. In the BCVWD 2015 UWMP, recycled water demands are estimated to range from 1,154 FY to 3,363 AFY between 2020 and 2040 (BCVWD 2015 UWMP Table 6-19).

YVWD operates an 8 MGD Wochholz Water Recycling Facility that provides advanced tertiary treatment of wastewater from its sewer system. Recycled water is used to meet approximately 10-15 percent of YVWD's overall water demands. YVWD plans to implement aggressive recycled water use for new development in the City of Calimesa, requiring dual plumbing for front yard irrigation on Single-family residential properties. Ultimately their facility will be capable of treating up to 11 MGD of wastewater. YVWD currently operates a 2.5 MGD reverse osmosis treatment system to purify the recycled water produced at their facility and a brineline to dispose of the salts removed by the treatment system. A 4.0 million gallon (MG) recycled water storage reservoir and pump station is used to store the recycled water. YVWD will be constructing a Regional Recycled Water Conveyance System which will allow it to provide surplus recycled water to BCVWD and the City of Banning.

The City of Banning currently spreads treated wastewater effluent in ponds overlying the Cabazon storage unit which has limited storage capacity to allow for indirect potable reuse of

this effluent. Banning has plans to upgrade its wastewater treatment plant to meet Title 22 requirements and increase capacity by 2025. Once on-line, this upgrade would make approximately 1,680 AFY of recycled water available to the City for irrigation use[5].

3.5 Development of Desalination

The California UWMP Act requires a discussion of potential opportunities for use of desalinated water (Water Code Section 10631[i]). SGPWA has explored such opportunities, and they are described in the following section, including opportunities for desalination of brackish water, groundwater and seawater. However, at this time, none of these opportunities are practical or economically feasible for SGPWA and SGPWA has no current plans to pursue them. Therefore, desalinated supplies are not included in the supply summaries in this Plan.

3.5.1 Opportunities for Brackish Water and/or Groundwater Desalination

As discussed in Section 4, groundwater supplies within the SGPWA service area impacted by total dissolved solids, and desalination could be implemented by the individual retail agencies to address this issue. YVWD for example is close to obtaining a permit to serve desalted recycled wastewater for non-potable uses.

It is noted that SGPWA could team with other SWP contractors and provide financial assistance in construction of other regional groundwater desalination facilities in exchange for SWP supplies. The desalinated water would be supplied to users in communities near the desalination plant, and a similar amount of SWP supplies would be exchanged and allocated to SGPWA from the SWP contractor. A list summarizing the groundwater desalination plans of other SWP contractors is not available; however, SGPWA would begin this planning effort should the need arise.

In addition, should an opportunity emerge with a local agency other than a SWP contractor, an exchange of SWP deliveries would most likely involve a third party, such as Metropolitan. Most local groundwater desalination facilities would be projects implemented by retail purveyors of SWP contractors and, if an exchange program was implemented, would involve coordination and wheeling of water through the contractor's facilities to SGPWA.

3.5.2 Opportunities for Seawater Desalination

Because the SGPWA service area is not in a coastal area, it is neither practical nor economically feasible for SGPWA to implement a seawater desalination program. However, similar to the brackish water and groundwater desalination opportunities described above, SGPWA and the purveyors could provide financial assistance to other SWP contractors in the construction of their seawater desalination facilities in exchange for SWP supplies.

SGPWA has been following the existing and proposed seawater desalination projects along California's coast. Table 3-5 provides a summary of the status of several of California's

[5] City of Banning 2015 UWMP

municipal/domestic seawater desalination facilities. As of December 2015, there was an estimated 10 active proposals for seawater desalination plants along the California Coast, as well as two additional proposed plants in Baja California, Mexico that would provide water to southern California communities (Pacific Institute, 2015). This is down from an estimated 21 proposals in 2006 and 19 in 2012 (Pacific Institute, 2015).

As shown Table 3-5, most of the existing and proposed seawater desalination facilities are/would be operated by agencies that are not SWP contractors. However, in these cases as described above, an exchange for SWP deliveries would most likely involve a third party (SWP contractor), the local water agency and SGPWA.

TABLE 3-5
EXISTING AND PROPOSED SEAWATER DESALINATION FACILITIES IN CALIFORNIA

Project	Member Agency Service Area or Project Developer	MGD	Status
Carlsbad Seawater Desalination Project	San Diego County Water Authority/Poseidon Water	50	Operational
Marina Desalination Plant	Marina Coast Water District	0.27	Idle
Sand City Coastal Desalination Facility	City of Sand City	0.3	Operational
Monterey Bay Aquarium	Monterey Bay Aquarium	0.008	Operational
Morro Bay Desalination Facility	City of Morro Bay	0.6	Idle
Diablo Canyon Power Plant	Pacific Gas and Electric	0.58	Operational
Gaviota Oil Heating Facility	Chevron Corporation	0.41	Operational
Santa Catalina Island	City of Avalon/Southern California Edison	0.325	Operational
San Nicholas Island	U.S. Navy	0.024	Operational
West Basin Seawater Desalination Project	West Basin Municipal Water District	20-60	Proposed
Huntington Beach Seawater Desalination Project	Orange County Water District	50	Proposed
DeepWater Desalination Project	DeepWater Desal, LLC	25	Proposed
Charles Meyer Desalination Plant	City of Santa Barbara	2.8	Idle
Expanding Diablo Canyon Nuclear Power's Desalination Plant	PG&E and San Luis Obispo County	1.5	Proposed
Monterey Peninsula Water Supply Project	Cal Am, Monterey County, Monterey Peninsula Regional Water Authority, Monterey Peninsula Water Management District	6.4 to 9.6	Proposed
The People's Moss Landing Water Desalination Project	Nader Agha	12	Proposed
Doheny Ocean Desalination Project	South Coast Water District and Laguna Beach County Water District	15 to 20	Proposed
City of Oceanside	City of Oceanside	5 to 10	Proposed
Rosarito Beach Seawater Desalination Plant	San Diego County Water Authority	25 to 75	Proposed
Binational Rosarito Desalination Project	NSC Agua and Otay Water District	100	Proposed
	Total MGD	**315 – 418 MGD**	

Source: Pacific Institute, December 2015, Available at: http://pacinst.org/publication/key-issues-in-seawater-desalination-proposed-facilities

Section 4: Water Quality

4.1 Overview

The quality of any natural water is dynamic in nature. This is true for the SWP water brought into the SGPWA service area. During periods of intense rainfall or snowmelt, routes of surface water movement are changed; new constituents are mobilized and enter the water while other constituents are diluted or eliminated. The quality of water changes over time. These same basic principles apply to groundwater. Depending on water depth, groundwater will pass through different layers of rock and sediment and leach different materials from those strata. Water quality is not a static feature of water, and these dynamic variables must be recognized.

Water quality regulations also change. This is the result of the discovery of new contaminants, changing understanding of the health effects of previously known as well as new contaminants, development of new analytical technology, and the introduction of new treatment technology. All retail water purveyors are subject to drinking water standards set by the Federal EPA and the California Department of Public Health. SGPWA imports SWP water primarily for groundwater basin recharge. Retail purveyors extract groundwater from these groundwater basins for delivery, with the exception of YVWD, who treats the imported water and delivers it directly to its customers.

This Section provides a general description of the water quality of both imported water and groundwater supplies. A discussion of potential water quality impacts on the reliability of these supplies is also provided.

The Agency prepares an annual Report on Water Conditions that generally describes the water quality of imported SWP water and local groundwater. Several state, regional and county agencies have jurisdiction and responsibility for monitoring water quality and contaminant sites. Programs administered by these agencies include basin management, waste regulation, contaminant cleanup, public outreach, and emergency spill response.

4.2 Imported Water Quality

SGPWA provides imported SWP water to its service area. The source of SWP water is rain and snow from the Sierra Nevada, and Coastal mountain ranges. This water travels to the Sacramento-San Joaquin Delta, which is a network of natural and artificial channels and reclaimed islands at the confluence of the Sacramento and San Joaquin rivers. The Delta forms the eastern portion of the San Francisco estuary, receiving runoff from more than 40 percent of the state's land area. It is a low-lying region interlaced with hundreds of miles of waterways. From the Delta, the water is pumped into a series of canals and reservoirs, which provides water to urban and agricultural users throughout the San Francisco Bay Area and Central and Southern California. SGPWA samples its water quality at the Devil Canyon sampling station in San Bernardino. This is the closest sampling station to the Agency and is representative of the water that the Agency receives from the SWP.

One important property of SWP water is the mineral content. SWP water is generally low in dissolved minerals, such as calcium, magnesium, sodium, potassium, iron, manganese, nitrate,

and sulfate. Most of these minerals do not cause health concerns. Nitrate is the main exception, as it has significant health effects for infants in high concentrations; however, the nitrate content of SWP water is very low. Also of significance is the chloride content. Although not a human health risk, chloride can have a negative impact on agricultural activities and regulatory compliance for local sanitation agencies. The chloride content of SWP water varies widely from well over 100 milligrams per liter (mg/L) to below 40 mg/L, depending on Delta conditions.

Salinity is becoming more heavily regulated by Regional Water Quality Control Boards (RWQCBs) throughout the State, especially as water agencies construct recycled water systems. In order to maintain reasonable total dissolved solids (TDS) (also known as salinity or salts) levels in the lower reaches of the Santa Ana watershed, the Santa Ana RWQCB must set standards for TDS at relatively low concentrations in the upper reaches of the watershed, where the western portion of the Agency's service area is located. This watershed already has among the highest levels of TDS in the State. Sewage treatment plant effluent from Beaumont, Yucaipa, and Calimesa is discharged into tributaries to the Santa Ana River and is regulated by the Santa Ana RWQCB; effluent from Banning is currently regulated by the Colorado River RWQCB, though it is likely that the Santa Ana RWQCB may at some time regulate this discharge or portions thereof. This is due to the fact that the City of Banning has plans for a recycled water system, parts of which will overlie a portion of the Santa Ana watershed.

Since SWP water imports to the underlying groundwater basins will be persistent, long term, and increasing, these imports are deemed to be a significant factor in the long term salt balance in the region. Data regarding the quantity and quality of SWP water delivered to the SGPWA service area are available from Santa Ana Regional Board, and are also reported in the Agency's annual Report on Water Conditions. As discussed for groundwater quality, TDS is the most significant constituent in the SWP water. The concentration of TDS is very dependent on hydrologic conditions, and during dry years, the concentration of TDS increases. In January of 2011, which was a relatively wet hydrologic year in California, TDS concentrations were found to greatly decrease. This is significant because the ambient salinity concentration of the Beaumont Basin is benefited by the recharge of SWP water.

4.2.1 Municipal Water Quality Investigations Program

SGPWA participates in the DWR Municipal Water Quality Investigations (MWQI) Program. The MWQI Program is funded by the sixteen SWP Contractors that provide water to their customers for municipal and industrial uses. The mission of the MWQI Program is to: a) support the effective and efficient use of the Sacramento-San Joaquin Delta (Delta) and the SWP as a source water supply for municipal purposes through monitoring, forecasting, and reporting water quality; b) provide early warning of changing conditions in source water quality used for municipal purposes; c) provide data and knowledge based support for operational decision-making on the SWP; d) conduct scientific studies of drinking water importance; and e) provide scientific support to DWR, the State Water Project Contractors Authority MWQI-Specific Project Committee, and other governmental entities.

The MWQI Program conducts extensive monitoring in the Delta and the outlet to San Luis Reservoir. The data from this program, combined with data collected throughout the SWP by the DWR Division of Operations and Maintenance, are used to understand how water quality changes from the Delta to the turn outs of the SWP Municipal and Industrial (M&I) Contractors.

The MWQI Program has also developed a forecasting model to forecast organic carbon concentrations and salinity levels throughout the SWP. A daily report is sent out via email to the M&I Contractors with recent water quality data at key locations and information on Delta conditions and pumping at the Banks and Jones pumping plants.

Ongoing work includes refinement of the forecasting model to more accurately predict water quality conditions and to better model the impacts of groundwater and surface water pump-ins. The MWQI Program is also conducting studies to better understand the dynamics of algal and aquatic plant growth in the SWP. Algae and aquatic plants create a number of problems, including taste and odor issues, wide swings in pH, filter clogging, and clogging of conveyance structures. The MWQI Program also conducts the sanitary survey of the SWP, which must be submitted to the State Water Resources Control Board, Division of Drinking Water every five years.

4.3 Groundwater Quality

Groundwater quality in the region is very high. There is no known historical industrial or mining activity in the region that has generated harmful plumes of pollutants. The Santa Ana RWQCB has a "maximum benefit" goal of 330 parts per million (ppm) for TDS (or salinity) for the Beaumont Basin. The current ambient TDS concentration in the Beaumont Basin is approximately 280 ppm (Report on Water Conditions, 2013). The Basin Plan requires local entities to begin planning desalters when the ambient TDS increases to 320 ppm. YVWD has constructed a desalination plant and brine disposal pipeline to address the TDS issue.

In addition to salinity or TDS, nitrate is also monitored closely. This too is regulated by the RWQCB, but nitrate concentrations are currently well within the maximum benefit standards. Over the past few years there have been isolated incidents of high nitrates at individual wells for short periods of time, typically after a large rainstorm that causes flushing of the system. These have not proven to be a health hazard.

Total chromium has been regulated by the SWRCB at an MCL of 50 microgram per liter (µg/L), which includes both chromium-3 and chromium-6. In 2011, California EPA Office of Environmental Health Hazard Assessment set a Public Health Goal (PHG) of 0.02 µg/L for chromium-6. California Department of Public Health then reviewed the PHG and recommended an MCL for chromium-6 at the level of 10 µg/L, which went into effect July 1st, 2014. In 2015, SB385 was passed and signed by Governor Jerry Brown that effectively pushed the enforcement of the new chromium-6 MCL out to 2020, if the water purveyor submitted a compliance plan to their local Division of Drinking Water (DDW).

Within the SGPWA service area, chromium-6 concentrations have been measured at levels above the MCL in several wells owned by the City of Banning and BCVWD, forcing some wells to be taken out of production temporarily, pending implementation of a fix to the problem.

More detail on groundwater quality management actions are identified in the retail water agencies' UWMPs.

4.4 Groundwater Protection

The general goal of groundwater protection activities is to maintain the groundwater and the aquifer to ensure a reliable high quality supply. Activities to meet this goal include continued and increased monitoring, data sharing, education and coordination with other agencies that have local or regional authority or programs. To increase its groundwater protection activities, SGPWA, YVWD, and BCVWD have been taking the actions to manage salinity in the Yucaipa, Beaumont, and San Timoteo Basins. The City of Banning is also planning to reduce TDS in recycled water for irrigation use.

4.5 Water Quality Impacts on Reliability

The quality of water dictates numerous management strategies a water purveyor will implement, including, but not limited to, the selection of raw water sources, treatment alternatives, blending options, and modifications to existing treatment facilities. Maintaining and utilizing high quality sources of water simplifies management strategies by increasing water supply alternatives, water supply reliability, and decreasing the cost of treatment. Maintaining high quality source water allows for efficient management of water resources by minimizing costs.

Maintaining the quality of water supplies increases the reliability of each source by ensuring that deliveries are not interrupted due to water quality concerns. A direct result from the degradation of a water supply source is increased treatment cost before consumption. The poorer the quality of the source water, the greater the treatment cost. Groundwater may degrade in quality to the point that is not economically feasible for treatment. In this scenario the degraded source water is taken off-line. This in turn can decrease water supply reliability by potentially decreasing the total supply and increasing demands on alternative water supplies.

Overall, the quality of imported water is not anticipated to affect water reliability. Water quality issues are constantly evolving, the Agency will continue to take action to protect supplies when needed, however it is recognized water quality treatment can have significant costs.

Section 5: Reliability Planning

5.1 Overview

The Act requires urban water suppliers to assess water supply reliability that compares total projected water use with the expected water supply over the next twenty years in five year increments. The Act also requires an assessment for a single-dry year and multiple-dry years. This chapter presents the reliability assessment for SGPWA's service area through 2040.

As stated in SGPWA's mission statement, the goal of SGPWA is to "is to import supplemental water and to protect and enhance local water supplies for use by present and future water users and to sell imported water to local water districts within the service areas of the San Gorgonio Pass Water Agency." This Plan helps SGPWA to achieve this goal even during dry periods based on a conservative water supply and demand assumptions over the next 25 years, as discussed in the following sections.

5.2 Supply And Demand Comparisons

The available supplies and water demands for SGPWA's service area were analyzed to assess the region's ability to satisfy demands during three scenarios: an average water year, single-dry year, and multiple-dry years. Table 5-1 presents the base years for the development of water year data. Tables 5-2, 5-3, and 5-4 summarize, respectively, Average Water Year, Single-Dry Water Year, and Multiple-Dry Year supplies.

TABLE 5-1
BASIS OF WATER YEAR DATA

Water Year Type	Base Years	Historical Sequence
Average Water Year	Average	1921-2003
Single-Dry Water Year	1977	--
Multiple-Dry Water Years	1931-1934	--

5.2.1 Normal Water Year

Table 5-2 summarizes SGPWA's water supplies available to meet demands over the 25-year planning period during an average/normal year. For SWP supplies it is assumed 62 percent of Table A will be available as the long-term average supply. As presented in the table, SGPWA's water supply is broken down into existing and planned water supply sources.

TABLE 5-2
PROJECTED AVERAGE/NORMAL YEAR SUPPLIES AND DEMANDS (AFY)

Water Supply Source	2020	2025	2030	2035	2040
Existing Supplies					
Imported SWP[(a)]	10,700	10,700	10,700	10,700	10,700
Yuba Accord[(b)]	300	300	300	300	300
Total Existing Supplies	**11,000**	**11,000**	**11,000**	**11,000**	**11,000**
Planned Supplies[(c)]					
SBVMWD Purchased Supply	2,000	2,000	2,000	2,000	2,000
Available Purchases of Supply [(d)]	1,500	3,800	7,700	11,700	15,000
Total Planned Supplies[(e)]	**3,500**	**5,800**	**9,700**	**13,700**	**17,000**
Total Existing and Planned Supplies	**14,500**	**16,800**	**20,700**	**24,700**	**28,000**
Total Demands[(f)]	**13,200**	**16,500**	**20,400**	**24,400**	**27,700**
Total Maximum Demands[(g)]	**18,800**	**22,200**	**25,800**	**29,700**	**31,600**

Notes: Values are rounded to the nearest hundred.

(a) Assumes 62% of Table A amount (17,300 AFY) based on the California Department of Water Resources Final Delivery Capability Report 2015 (DWR 2015 DCR).
(b) See Section 1.2.3.
(c) See Section 1, Table 3-1.
(d) The Agency is expected to purchase additional supplies by 2020 to meet projected demands during average years.
(e) SWP is the assumed source of planned supplies. Volumes shown assume 62% reliability of planned supplies based on the DWR 2015 DCR. Refer to Table 3-1.
(f) Demands from Table 2-4.
(g) Demands from Table 2-5.

5.2.2 Single-Dry Year

The water supplies and demands for SGPWA's service area over the 25-year planning period were analyzed in the event that a single-dry year occurs, similar to the drought that occurred in California in 1977. During a single-dry year, SWP supply availability is anticipated to be reduced to 11 percent. Table 5-3 summarizes the existing and planned supplies available to meet demands during a single-dry year. Demand during single-dry years are presented in section 2.6 and shown below. Dry year demand is lower than average year demand, as shown in Table 5-3.

TABLE 5-3
PROJECTED SINGLE-DRY YEAR SUPPLIES AND DEMANDS (AFY)

Water Supply Source	2020	2025	2030	2035	2040
Existing Supplies					
Imported SWP[(a)]	1,900	1,900	1,900	1,900	1,900
Yuba Accord[(b)]	300	300	300	300	300
Total Existing Supplies	**2,200**	**2,200**	**2,200**	**2,200**	**2,200**
Planned Supplies					
Future Dry Year Supplies[(c)] **[(d)]**	400	600	1,100	1,500	1,900
Total Planned Supplies	**400**	**600**	**1,100**	**1,500**	**1,900**
Total Existing and Planned Supplies	**2,600**	**2,800**	**3,300**	**3,700**	**4,100**
Total Demands[(e)]	**1,600**	**3,300**	**5,500**	**7,500**	**9,200**
Total Maximum Demands[(f)]	**4,300**	**5,500**	**6,800**	**8,000**	**9,200**

Notes: Values are rounded to the nearest hundred.

(a) Assumes 11% of Table A amount (17,300 AFY) based on the California Department of Water Resources Final Delivery Capability Report 2015 (DWR 2015 DCR).

(b) See Section 1.2.3.

(c) As described for average year supplies, the Agency is expected to purchase additional supplies by 2020 to meet projected demands during average years. SWP is the assumed source of planned supplies. Future dry year supplies shown here assume 11% availability of those planned supplies based on the DWR 2015 DCR.

(d) The Agency is negotiating a cooperative agreement with YVWD and the City of Calimesa to provide as-needed supplies as discussed in Section 3.3.2. Therefore, supplies shown are projected to meet those demands at a minimum. Procurement of additional dry year supplies will be ongoing to meet additional dry year demands, as discussed in Section 3.3.

(e) Demands from Table 2-6.

(f) Demands from Table 2-7.

5.2.3 Multiple-Dry Year

The water supplies and demands for SGPWA's service area over the 25-year planning period were analyzed in the event that a four-year multiple-dry year event occurs, similar to the drought that occurred during the years 1931 to 1934. During multiple-dry years, SWP availability is anticipated to be reduced to 33 percent. Table 5-4 summarizes the existing and planned supplies available to meet demands during multiple-dry years.

TABLE 5-4
PROJECTED MULTIPLE-DRY YEAR SUPPLIES AND DEMANDS (AFY)

Water Supply Source	2020	2025	2030	2035	2040
Existing Supplies					
Imported SWP[(a)]	5,700	5,700	5,700	5,700	5,700
Yuba Accord[(b)]	300	300	300	300	300
Total Existing Supplies	**6,000**	**6,000**	**6,000**	**6,000**	**6,000**
Planned Supplies					
Future Dry Year Supplies [(c) (d)]	1,200	1,900	3,200	4,500	5,600
Total Planned Supplies	**1,200**	**1,900**	**3,200**	**4,500**	**5,600**
Total Existing and Planned Supplies	**7,200**	**7,900**	**9,200**	**10,500**	**11,600**
Total Demands[(e)]	**3,200**	**5,000**	**7,300**	**9,600**	**11,500**
Total Maximum Demands[(f)]	**5,900**	**7,200**	**8,700**	**10,100**	**11,500**

Notes: Values are rounded to the nearest hundred.

(a) Assumes 33% of Table A amount (17,300 AFY) based on the DWR 2015 DCR.

(b) See Section 1.2.3.

(c) As described for average year supplies, the Agency is expected to purchase additional supplies by 2020 to meet projected demands during average years. SWP is the assumed source of planned supplies. Future dry year supplies shown here assume 33% availability of those planned supplies based on the DWR 2015 DCR.

(d) The Agency is negotiating a cooperative agreement with YVWD and the City of Calimesa to provide dry year supplies as discussed in Section 3.3.2. Therefore, supplies shown are projected to meet those demands at a minimum; other retail agencies are assumed to meet dry year demands with local supplies. Procurement of additional dry year supplies will be ongoing.

(e) Demands from Table 2-8.

(f) Demands from Table 2-9.

5.2.4 Summary of Comparisons

As shown in the analyses above, SGPWA has planned adequate supplies to meet demands during average and multiple-dry years throughout the 25-year planning period. However, the Agency will need to procure additional water supplies to meet projected future needs in single-dry year conditions. As discussed in Section 3.3, these additional supplies will represent a diverse portfolio of water, including dry year supplies, SWP Table A water purchased from or exchanged with other SWP Contractors, purchase of surplus water from a neighboring SWP Contractor, and other supplemental water as available. Refer to Section 3.4 for the Agency's plans to procure these additional supplies.

Section 6: Water Demand Management Measures

6.1 Demand Management

The purpose of the Demand Management Measures (DMM) section of this UWMP is to (a) provide a description of the past wholesaler water conservation programs that the Agency has implemented since 2010 and (b) describe the activities and actions the Agency plans to use in the future to assist its retailers in meeting their urban water use reduction targets. For the purposes of this UWMP the DMMs are categorized as "Foundational" and "Other". Foundational DMMs, listed below, are those DMMs that the UWMP Act and Water Code specifically mention that apply to a wholesaler such as SGPWA:

a) Metering
b) Public education and outreach
c) Water conservation program coordination and staffing support
d) 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.
e) A narrative description of the wholesale supplier's distribution system asset management program
f) Wholesale supplier assistance programs

SGPWA does not have an internal distribution system. The Agency currently has three retail customers: the YVWD, the BCVWD, and the City of Banning. The YVWD is the only entity that purchases water for direct deliveries.

6.1.1 Metering

The Agency does not provide water directly to water users, hence it does not have a traditional metering system. The Agency does replenish the groundwater basin by recharging imported SWP water at several locations throughout the service area, as described in Section 3. The SWP water is metered at the turnouts where the Agency receives the water into its service area. All connections to the retailers listed above are metered.

6.1.2 Public Education and Outreach

The Agency recognizes the importance of public education and outreach for water resource conservation, and works towards providing materials to its customers informing them on ways to conserve water. A number of different resources including "Save our Water", "EPA Water Sense", "Be Water Wise", "Conservation Garden Brochure", and other activities related to conservation for children are made available on the Agency website (http://www.sgpwa.com/conservation) free of charge for the benefit of its customers and the public.

The Agency is involved in a number of outreach and education programs geared towards both children and adults.

Each year, the Agency sponsors a local high school in a regional solar boat race. During this weekend event, each high school team is required to write a paper and make a presentation on water conservation, and the Agency Board brings the high school to a Board meeting to hear from the students what they learned. Board members are judges for the event, which has raised the profile of water conservation considerably among high school students in the region. Approximately eight high schools compete each year.

The Agency has partnered with the Inland Empire Resource Conservation District to provide water conservation themed presentations in local schools for the three school districts within the Agency's service area. The programs focus on groundwater using a physical tabletop groundwater model purchased by the Agency. The program also describes the local retail water supplier that serves the school, where its water comes from, where the Agency's water comes from, how much water is used for everyday activities and to grow food, and other conservation-themed subjects. 2015 is the second year that the Agency began implementing this program. During the first year, 62 presentations were made to 48 different classes at eight different schools. These programs reached approximately 1,700 students. We anticipate similar numbers for 2015 and in subsequent years as the program continues.

The Agency has also contracted with a local small business, Drought Solutions, to provide workshops to gardening clubs, homeowners' associations, service organizations, and other adult groups. These typically focus on outdoor water use, though there are six separate topics that are offered. In 2015, approximately eight programs were given. Several hundred adults have attended these programs. The Agency will continue to build on this outreach program.

Finally, the Agency, its staff, and its Board of Directors participate in numerous speaking engagements in the communities of the service area whereby the importance of water conservation and investments in infrastructure and water supplies for the future are consistent themes that are emphasized.

6.1.3 Water Conservation Program Coordination and Staffing Support

The General Manager acts as the conservation coordinator. In addition to the above programs, he has direction from the Board to examine other conservation programs that meet the needs of the region and the retailers.

The Agency has set an example for other public agencies by re-landscaping its administration building with low water use vegetation and other hardscape. It has created a demonstration "back yard" that is a true conservation garden. Garden clubs and schools students have visited this garden. Flyers are available with the names of each of the plants so that the public is aware of what to purchase. The garden includes artificial turf, a winding pathway, and seats. This was done well before the recent drought, thus setting an example for other local public agencies, which have since begun to take similar actions.

6.1.4 Conservation pricing

SGPWA Ordinance No. 8 mandates that the Agency, at a minimum, shall establish and charge rates for the delivery of water sufficient to cover SGPWA's variable costs for delivery of imported water, internal SGPWA costs and other amounts as determined by the Board of Directors. Cost of delivery includes operations, administrative overhead, SBVMWD pass-through, dry year transfer costs, rate stabilization surplus reserves, new water purchase surplus reserve contributions, and DWR imported water purchase.

Currently, SGPWA charges a volumetric rate of $317/AF to its retailers. The wholesale water rate was established via Resolution No. 2009-3. The rate structure is supported by the 2009 Water Rate Study prepared for SGPWA (David Taussig Associates, Inc., 2009).

6.1.5 Wholesale Supplier Assistance Programs

SGPWA regularly explores potential support options for its retailers to assist them in meeting their SBX7-7 demand reduction targets. Where possible, SGPWA identifies partnerships to support DMM implementation. For example, SGPWA has contracted with the local Inland Empire Resource Conservation District to implement some of the Agency's education programs, and makes this program available to the retailers.

6.2 Asset Management Program

The Agency does not at this time have an internal distribution system or any other physical facilities. It anticipates constructing a distribution system in the future. Since it does not have an internal distribution system but rather sells water directly from the SWP to local retail water agency systems, no asset management program is required. At such time as the Agency constructs an internal distribution system, it will implement an asset management program.

6.3 Planned Wholesale Supplier Assistance Programs

Over the next five years, the Agency will continue to implement the Foundational DMMs as described in Section 6.1 and will offer to provide help to its retail agencies in meeting their water use targets. The Agency staff will continue to provide residents (adults and children) with educational information and outreach and other DMMs as feasible and appropriate.

The Agency General Manager is Chair of the Conservation Committee of the San Gorgonio Pass Regional Water Alliance, a consortium of water agencies and cities in the region, including the retail agencies with demands on SGPWA. Through this committee, the Agency is providing technical support and information to the smaller retail agencies that do not have staff to implement conservation programs or even to understand the implications of the State Board's recently-enacted emergency conservation regulations. It is also ensuring that local retail agencies are aware of the regulations and all public hearings associated with them so that the water agencies in the region can provide input on the emergency regulations as well as understand them. This is a valuable resource, especially for the smaller retail water agencies.

Monthly meetings include presentations on local, regional and state water issues, committee reports and individual agency presentations and updates. Topics have included California Water Plan Update, Integrated Regional Water Management Plans, Urban Water Management Plans,

water conservation programs, 2014 water bond, storm water resources, salinity management, State Water Project, and drought conditions presented by a representative of the California Department of Water Resources.

The Committee's website can be accessed at http://www.passwateralliance.com/conservation/.

6.3.1 Planned Implementation of DMMs to Achieve Water Use Targets

SGPWA will continue to implement the DMMs described in this section, and will continue to collaborate with the other retail purveyors to implement the measures outlined in this UWMP. These programs, taken together, will assist SGPWA in helping its retail agencies achieve their SBX7-7 2020 targets as described in their respective UWMPs.

Section 7: Water Shortage Contingency Planning

7.1 Overview

Water supplies may be interrupted or reduced significantly in a number of ways, such as a drought which limits supplies, an earthquake which damages water delivery or storage facilities, a regional power outage, or a toxic spill that affects water quality. This chapter of the Plan describes how SGPWA plans to respond to various stages of shortage.

Cities and water agencies within SGPWA rely on large groundwater reserves to meet potable water supply needs. During previous drought periods, municipal water suppliers continued to draft from these reserves to meet customer needs without imposing restrictions on water use, but at rates exceeding natural replenishment in most areas. Large groundwater basins in the region serve as reservoirs and buffer the impacts of seasonal and year-to-year variations in precipitation and imported and natural surface water deliveries. This has been demonstrated during the recent drought, as groundwater supply was available to meet demands; in addition, the retailers have complied with the Governor's emergency and executive orders requiring mandatory conservation actions statewide. The area aquifers are either currently in balance or expected to be in balance in the near future due to the combination of water imports, State-mandated conservation requirements, and/or court ordered production "ramp-down." During multiple-year droughts or State Water Project outages, adequate groundwater supplies will be available to meet demands through the use of conjunctively banked pre-stored imported water.

The SGPWA adopted Ordinance No. 10 establishing a water shortage contingency plan in July 2014. The ordinance established procedures for allocating reduces deliveries of water to Purchasers in the event of single and multiple dry years and a shortage of water available to meet the demands of the Purchasers. SGPWA produced a draft update to Ordinance No. 10 in August 2016 to further guide its actions in the event of a water shortage emergency. This new draft Ordinance (provided in Appendix H) includes stages of action to be undertaken by the Agency in response to shortages in wholesale water supplies available for purchase by the Agency, including up to a 50 percent reduction in those supplies and to provide an outline of the specific water supply conditions that are applicable to each stage of action by reference to the allocation scenarios established in Agency Ordinance No. 10. It is also noted that the SGPWA's role is limited to the use of imported water to replenish local groundwater basins for subsequent pumping by its retail agencies. As such, direct delivery of water provided by SGPWA is minimal.

Therefore, the majority of the water shortage contingency planning in the SGPWA service area is undertaken by retail agencies, Riverside County, and the cities throughout the County. This section summarizes water shortage contingency plans developed by SGPWA retail agencies.

Actions of the SGPWA to address water shortages are summarized below.

7.2 SGPWA Stages of Action to Respond to Water Shortages

SGPWA's Board of Directors determines when to declare a level 0, 1, 2, or 3 water supply shortage in response to drought, regulatory requirements, or other water supply conditions, and what reduction in water use is necessary to make the most efficient use of water, protect public health and safety, and respond to existing water supply and/or regulatory conditions.

Table 7-1 presents the three-stage water supply shortage action plan for the Agency.

These stages are outlined in SGPWA Draft Resolution No. XX, and described in further detail below. See Appendix H for the complete Draft Resolution.

As a wholesale agency, SGPWA does not have the authority to impose mandatory restrictions on retail customers due to water shortages. Therefore, this level of contingency planning is conducted by the retail water agencies.

TABLE 7-1

RATIONING AND REDUCTION GOALS

Stage	Percent Supply Reduction[(a)]	Water Supply Condition	Stages of Action
0	0%	Year when at least 62% of contractual SWP Table A imported supplies are available to the Agency	• Coordination. Meet and coordinate with retail water agencies and other entities in the San Gorgonio Pass area regarding current and projected water supplies and demands. • Public Messaging. Encourage the public to avoid water waste and increase water use efficiency. • Manage Water Supplies in Excess of Demands. Pursue programs and projects to manage water supplies in excess of demands, including, but not limited to, placing such water in storage or water banking or exchange programs.
1	25%	47%	• Water Shortage Plan. The Agency will determine whether a Water Shortage Year exists in accordance with Ordinance 10 and the extent to which imported water supplies available for purchase by the Agency will need to be allocated in accordance with Ordinance No. 10. • Coordination. Meet and coordinate with retail water agencies and other entities in the San Gorgonio Pass area regarding current and projected water supplies and demands, and the extent to which other agencies may implement the appropriate stages and actions under their respective water shortage contingency plans. • Continue to undertake other applicable actions identified above under a Stage 0 Water Supply Condition.

Stage	Percent Supply Reduction[(a)]	Water Supply Condition	Stages of Action
2	26-45%	46-34%	• Water Shortage Plan. The Agency will determine whether a Water Shortage Year exists in accordance with Ordinance 10 and the extent to which imported water supplies available for purchase by the Agency will need to be allocated in accordance with Ordinance No. 10. • Shift and Increase in Public Messaging. The Agency will utilize its own website and other local media and communication efforts to educate the public on the shortage and to encourage greater conservation on the part of individuals, businesses, and institutions. • Dry Year Supplies. Determine from its customers if they desire additional dry-year supplies at an additional cost and, if so, to make reasonable and practicable attempts to obtain and deliver such supplies to customers who request and ensure payment for them. • Continue to undertake other applicable actions identified above under Stage 0 and Stage 1 Water Supply Conditions.
3	Greater than 45%	Greater than 34%	• Water Shortage Plan. The Agency will determine whether a Water Shortage Year exists in accordance with Ordinance 10 and the extent to which imported water supplies available for purchase by the Agency will need to be allocated in accordance with Ordinance No. 10. • Shift and Increase in Public Messaging. The Agency will utilize its own website and other local media and communication efforts to educate the public on the shortage and to encourage greater conservation on the part of individuals, businesses, and institutions. • Dry-Year Supplies. Determine from its customers if they desire additional dry-year supplies at an additional cost and, if so, to make reasonable and practicable attempts to obtain and deliver such supplies to customers who request and ensure payment for them. • Transfers. Evaluate and solicit input from its customers whether the Agency should pursue any transfers to augment supplies during the Stage 3 Condition, including related considerations of potential impacts to future water supplies. • Continue to undertake other applicable actions identified above under Stage 0, Stage 1, and Stage 2 Water Supply Conditions.

Source: SGPWA Ordinance No. XX, Ordinance Adopting a Wholesale Water Shortage Contingency Plan for Purposes of the Urban Water Management Planning Act (in Appendix H).

7.3 Minimum Water Supply Available During Next Three Years

The minimum water supply available during the next three years would occur during a three-year multiple-dry year event between the years 2016 and 2018. As shown in Table 7-3, the minimum regional water supply for agencies in the SGPWA service area for the next three years is about 6,000 AF. The water supply and demand are based on dry-year assumptions for the SWP and annual supply available for groundwater.

When comparing these supplies to the demand projections provided in Chapters 2 and 5 of this Plan, SGPWA does not have adequate supplies available to meet projected demands should a multiple-dry year period occur during the next three years, assuming SWP imported supply deliveries would be reduced to 33 percent, and based on realization of retail agency demand projections on SGPWA, as shown below. SGPWA will actively pursue transfers and exchanges in order to help meet demands.

TABLE 7-3
ESTIMATE OF MINIMUM SUPPLY FOR THE NEXT THREE YEARS

Water Supply Source	2016	2017	2018
Existing Supplies			
Imported SWP[(a)]	5,700	5,700	5,700
Yuba Accord[(b)]	300	300	300
Total Existing Supplies	**6,000**	**6,000**	**6,000**

Notes: Values rounded to the nearest hundred.

(a) SWP supplies are calculated by multiplying SGPWA's Table A amount of 17,300 AF by 33 % of total deliveries projected to be available based on the worst-case historic four-year drought of 1931-1934 (DWR 2015 DCR).

(b) See Section 3, Table 3-1. Assumes Yuba Accord supply available to meet demands.

7.4 Actions to Prepare For Catastrophic Interruption

7.4.1 General

The SGPWA service area is bounded on the east by a major portion of the San Andreas Fault. A major earthquake along the southern portion of the San Andreas Fault would affect the SGPWA service area.

The California Division of Mines and Geology has stated two of the aqueduct systems that import water to southern California (including the portion of the California Aqueduct that traverses the San Joaquin Valley) could be ruptured by displacement on the San Andreas Fault, and supply may not be restored for a three to six-week period. The situation would be further complicated by physical damage to pumping equipment and local loss of electrical power. DWR has a contingency aqueduct outage plan for restoring the California Aqueduct to service should a major break occur, which it estimates would take approximately four months to repair.

In the case of the southern portion of the fault, experts agree it may be at least three days after the earthquake before outside help could get to the area. Extended supply shortages of both groundwater and imported water, due to power outages and/or equipment damage, would have to be managed although local effects of these types of outages would not materially affect the region based on local native groundwater and banked imported water supplies.

Power outages currently do not affect SGPWA because it does not own or operate any wells or distribution systems. However, for the retailer water agencies, all of the water systems have some form of storage as both regulating reservoirs and emergency supply. It is assumed that in an emergency the public would be asked to reduce consumption to minimum health and safety levels, extending the supply. This would provide sufficient time to restore a significant amount of groundwater production. After the groundwater supply is restored, the pumping capacity of the retail purveyors could meet the reduced demand until such time that the imported water supply was reestablished. Updates on the water situation would be made as often as necessary. In addition, the County of San Bernardino has an Emergency Response Plan (2005) which further defines functions, assigns responsibilities, specifies policies and general procedures for coordination of planning efforts of various department and staff to assist in an emergency situation.

The area's water sources are generally of good quality, and no insurmountable problems resulting from industrial or agricultural contamination are foreseen. If contamination did result from a toxic spill or similar accident, the contamination would be isolated and should not significantly impact the total water supply. In addition, such an event would be addressed in the retailers' emergency response plan.

7.4.2 SWP Emergency Outage Scenarios

In addition to earthquakes, the SWP could experience other emergency outage scenarios. Past examples include slippage of aqueduct side panels into the California Aqueduct near Patterson in the mid-1990s, the Arroyo Pasajero flood event in 1995 (which also destroyed part of Interstate 5 near Los Banos), flood damage to the East Branch of the Aqueduct in 2015, and various subsidence and leakage repairs needed along the Main Branch and East Branch of the Aqueduct since the 1980s. All these outages were short-term in nature (on the order of weeks to several months), and DWR's Operations and Maintenance Division worked diligently to devise methods to keep the Aqueduct in operation and continue SWP deliveries while repairs were made. Thus, the SWP contractors generally experienced no interruption in total annual deliveries.

One of the SWP's important design engineering features is the ability to isolate parts of the system. The Aqueduct is divided into "pools." Thus, if one reservoir or portion of the California Aqueduct is damaged in some way, other portions of the system can still remain in operation. The primary SWP facilities are shown on Figure 7-1.

Other events could result in significant outages and potential interruption of service. Examples of possible nature-caused events include a levee breach in the Delta near the Harvey O. Banks Pumping Plant, a flood or earthquake event that severely damages the Aqueduct along its San Joaquin Valley traverse, or an earthquake event along either the West or East Branches. Such events could impact some or all SWP contractors south of the Delta.

The response of DWR, SGPWA, and other SWP contractors to such events would be highly dependent on the type and location of any such event. In typical SWP operations, water flowing through the Delta is diverted at the SWP's main pumping facility, located in the southern Delta, and is pumped into the California Aqueduct. During the relatively heavier runoff period in the winter and early spring, Delta diversions generally exceed SWP contractor demands, and the excess is stored in San Luis Reservoir. SWP aqueduct terminal reservoirs, such as Pyramid and Castaic Lakes, are also replenished during these periods. During the summer and fall, when diversions from the Delta are generally more limited and less than contractor demands, releases from San Luis Reservoir are used to make up the difference in deliveries to contractors. The SWP share of maximum storage capacity at San Luis Reservoir is 1,062,000 AF.

SGPWA receives its SWP deliveries through the East Branch of the California Aqueduct. The other contractors receiving deliveries from the East Branch are Metropolitan Water District of Southern California, Antelope Valley-East Kern Water Agency, Palmdale Water District, Crestline-Lake Arrowhead Water Agency, Desert Water Agency, San Gabriel Valley Municipal Water District, San Bernardino Valley Municipal Water District, and Mojave Water Agency The East Branch has two terminal reservoirs, Silverwood Lake and Lake Perris, which were designed to provide emergency storage and regulatory storage (i.e., storage to help meet peak summer deliveries) for several of the East Branch contractors. However, SGPWA does not have contract rights to storage capacity in those reservoirs.

In addition to SWP storage south of the Delta in San Luis and the terminal reservoirs, a number of contractors have stored water in groundwater banking programs in the San Joaquin Valley and more recently along the East Branch, and many also have surface and groundwater storage within their own service areas.

Three scenarios that could impact the delivery to SGPWA of its SWP supply or other supplies delivered to it through the California Aqueduct are described below. For each of these scenarios, it was assumed that an outage of six months could occur. SGPWA's ability to meet demands during the worst of these scenarios is presented following the scenario descriptions.

FIGURE 7-1
PRIMARY SWP FACILITIES

7.4.2.1 Scenario 1: Emergency Freshwater Pathway

DWR has estimated that in the event of a major earthquake in or near the Delta, regular water supply deliveries from the SWP could be interrupted for up to three years, posing a substantial risk to the California business economy. Accordingly, a post-event strategy has been developed which would provide necessary water supply protections. The plan has been coordinated through DWR, the Army Corps of Engineers (Corps), Bureau of Reclamation, California Office of Emergency Services (Cal OES), the Metropolitan Water District of Southern California, and the State Water Contractors. Full implementation of the plan would enable resumption of at least partial deliveries from the SWP in less than six months.

DWR Delta Flood Emergency Management Plan. DWR has developed the Delta Flood Emergency Management Plan to provide strategies for a response to Delta levee failures, which addresses a range of failures up to and including earthquake-induced multiple island failures during dry conditions when the volume of flooded islands and salt water intrusion are large. Under such severe conditions, the plan includes a strategy to establish an emergency freshwater pathway from the central Delta along Middle River and Victoria Canal to the export pumps in the south Delta. The plan includes the pre-positioning of emergency construction materials at existing and new stockpiles and warehouse sites in the Delta, and development of tactical modeling tools (DWR Emergency Response Tool) to predict levee repair logistics, water quality conditions, and timelines of levee repair and suitable water quality to restore exports. The Delta Flood Emergency Management Plan has been extensively coordinated with state, federal and local emergency response agencies. DWR, in conjunction with local agencies, the Corps and Cal OES, regularly conduct simulated and field exercises to test and revise the plan under real time conditions.

DWR and the Corps provide vital Delta region response to flood and earthquake emergencies, complementary to an overall Cal OES structure. Cal OES is preparing its Northern California Catastrophic Flood Response Plan that incorporates the DWR Delta Flood Emergency Management Plan. These agencies utilize a unified command structure and response and recovery framework. DWR and the Corps, through a Draft Delta Emergency Operations Integration Plan (April 2014), would integrate personnel and resources during emergency operations.

Levee Improvements and Prioritization. The DWR Delta Levees Subvention Program has prioritized, funded, and implemented levee improvements along the emergency freshwater pathway and other water supply corridors in the central and south Delta region. These efforts have been complementary to the DWR Delta Flood Emergency Management Plan, which along with use of pre-positioned emergency flood fight materials in the Delta, relies on pathway and other levees providing reasonable seismic performance to facilitate restoration of the freshwater pathway after a severe earthquake. Together, these two DWR programs have been successful in implementing a coordinated strategy of emergency preparedness for the benefit of SWP and CVP export systems.

Significant improvements to the central and south Delta levee systems along Old and Middle Rivers began in 2010 and are continuing to the present time at Holland Island, Bacon Island, Upper and Lower Jones Tracts, Palm Tract and Orwood Tract. This complements substantially improved levees at Mandeville and McDonald Islands and portions of Victoria

and Union Islands. Together, levee improvements along the pathway and Old River levees consisting of crest raising, crest widening, landside slope fill and toe berms, meet the needs of local reclamation districts and substantially improve seismic stability to reduce levee slumping and create a more robust flood-fighting platform. Many urban water supply agencies have participated or are currently participating in levee improvement projects along the Old and Middle River corridors.

Assuming that the Banks Pumping Plant would be out of service for six months, DWR could continue making at least some SWP deliveries to all southern California contractors from water stored in San Luis Reservoir. The water available for such deliveries would be dependent on the storage in San Luis Reservoir at the time the outage occurred and could be minimal if it occurred in the late summer or early fall when San Luis Reservoir storage is typically low. In addition to supplies from San Luis Reservoir, water from the East Branch terminal reservoirs would also be available to the East Branch contractors, including SGPWA. SGPWA water stored in groundwater banking programs in the San Joaquin Valley may also be available for withdrawal and delivery to SGPWA.

7.4.2.2 Scenario 2: Complete Disruption of the California Aqueduct in the San Joaquin Valley

The 1995 flood event at Arroyo Pasajero demonstrated vulnerabilities of the California Aqueduct (the portion that traverses the San Joaquin Valley from San Luis Reservoir to Edmonston Pumping Plant). Should a similar flood event or an earthquake damage this portion of the aqueduct, deliveries from San Luis Reservoir could be interrupted for a period of time. DWR has informed the SWP contractors that a four-month outage could be expected in such an event. SGPWA's assumption for this Plan is a more conservative six-month outage.

Arroyo Pasajero is located downstream of San Luis Reservoir and upstream of the primary groundwater banking programs in the San Joaquin Valley. Assuming an outage at a location near Arroyo Pasajero that takes the California Aqueduct out of service for six months, supplies from San Luis Reservoir would not be available to those SWP contractors located downstream of that point. It is likely that in such an emergency, water from the East Branch terminal reservoirs would be made available to the East Branch contractors, including SGPWA.

7.4.2.3 Scenario 3: Complete Disruption of the East Branch of the California Aqueduct

The East Branch of the California Aqueduct begins at a bifurcation of the Aqueduct south of Edmonston Pumping Plant, which pumps SWP water through and across the Tehachapi Mountains. From the point of bifurcation, the East Branch is an open canal passing through Alamo Power Plant, Pearblossom Pumping Plant, and on to Silverwood Lake and Lake Perris.

If a major earthquake (an event similar to or greater than the 1994 Northridge earthquake) were to damage a portion of the East Branch, deliveries could be interrupted. The exact location of such damage along the East Branch would be key to determining emergency operations by DWR and the East Branch SWP contractors. For this scenario, it was assumed that the East Branch would suffer a single-location break and deliveries of SWP water from north of the Tehachapi Mountains would not be available. It was also assumed that Lake Perris and Silverwood Lake reservoirs would not be damaged by the event and that water in Lake Perris and Silverwood Lakes would be available to the East Branch SWP contractors, including SGPWA.

In any of these three SWP emergency outage scenarios, DWR and the SWP contractors would coordinate operations to minimize supply disruptions. Depending on the particular outage scenario or outage location, some or all of the SWP contractors south of the Delta might be affected. But even among those contractors, potential impacts would differ given each contractor's specific mix of other supplies and available storage. During past SWP outages, the SWP contractors have worked cooperatively to minimize supply impacts among all contractors. Past examples of such cooperation have included certain SWP contractors agreeing to rely more heavily on alternate supplies, allowing more of the outage-limited SWP supply to be delivered to other contractors, and exchanges among SWP contractors, allowing delivery of one contractor's SWP or other water to another contractor, with that water being returned after the outage was over.

Of these three SWP outage scenarios, the East Branch outage scenario presents the worst-case scenario for the SGPWA service area. In this scenario, the retail water suppliers would rely on local supplies and water available to SGPWA from Lake Perris and Silverwood Lakes. See Section 7.4.2 regarding recommendations for emergency outage storage using cooperative agreements with other East Branch SWP contractors and individual groundwater banking programs.

During such an outage, the local supplies available would consist of native and banked groundwater. It was assumed that local well production would be unimpaired by the outage and that the outage would occur during a year when average/normal supplies would be available. Note that adequate well and aquifer capacity exists to pump at levels higher than those assumed in this assessment, particularly during a temporary period such as an outage.

7.4.3 Regional Power Outage Scenarios

For a major emergency such as an earthquake, Southern California Edison (Edison) has declared that in the event of an outage, power would be restored within a 24 hour period. For example, following the 1994 Northridge earthquake, Edison was able to restore power within 19 hours. Edison experienced extensive damage to several key power stations, yet was still able to recover within a 24-hour timeframe.

SGPWA is committed to providing regular service and meeting the needs of the community during any emergency situation. SGPWA is obligated to respond to emergencies by using all available resources in the most effective way possible. Additionally, the East Branch Phase II Extension includes emergency and operational storage for the region.

7.5 Mandatory Prohibitions During Shortages

SGPWA is not a direct purveyor of retail water supplies and does not have any emergency powers or the authority to implement water shortage plans within its boundaries. It relies instead on efforts of the individual cities and water agencies. However, SGPWA does have an Ordinance No. 10 establishing a water shortage plan that allows the Agency to sell and deliver SWP water to these entities. SGPWA's Ordinance 10 requires customers taking direct delivery of SWP water from SGPWA to maintain a backup supply in the event of outages or shortages in supply from the SWP. SGPWA informs customers under Ordinance 10 that supplies are variable and interruptible, with no guarantee of a specified delivery quantity. Ordinance 10 is SGPWA's only authority to reduce water supplies to its customers during shortages. However, customers under Ordinance 10 represent only a small portion of the overall water

use within the SGPWA service area, with a majority of water users receiving water supply from groundwater production.

7.6 Consumption Reduction Methods During Restrictions

As explained in the previous section, SGPWA does not have the power to implement mandatory prohibitions during water supply shortages, with the exception of customers receiving direct SWP supplies under SGPWA Ordinance No. 10.

SGPWA will however manage water supplies to minimize the social and economic impact of water shortages. The Water Shortage Plan is designed to establish procedures for allocating reduced deliveries of water to Purchasers in the event of single or multiple-dry year and a shortage of water available to meet demands of Purchasers.

7.7 Penalties for Excessive Use

The penalties for excessive water use are stated in the text of the resolutions and ordinances outlined in Table 7-1 for the SGPWA and the regional retail agencies.

7.8 Financial Impacts of Actions During Shortages

During periods of reduced consumption, revenue from water sales will decline. Also, a natural disaster may entail unpredicted expenditures for repairs. Therefore, each retail water agency has plans to address financial challenges of water shortages that include a mix of temporary base rate adjustment, use of reserves, fines for violation of mandatory water use restrictions, and deferring of non-critical maintenance items and filling of some personnel vacancies.

SGPWA has sufficient operating funds to supplement any deficiencies in revenue caused from a water shortage.

7.9 Water Shortage Contingency Resolution

SGPWA has prepared a draft Water Shortage Contingency Plan, which is included in Appendix H.

7.10 Mechanism to Determine Reductions in Water Use

As explained in Section 7.5, SGPWA does not have the power to implement mandatory prohibitions during water supply shortages, with the exception of customers receiving direct SWP supplies under SGPWA Ordinance No. 10.

Section 8: References

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Appendix A: DWR Checklist

Appendix A – UWMP Checklist

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
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	**1.5.1**
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	**1.5**
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	**1.5.2, 6.1.2, 6.1.3, 6.2, 6.3**
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	**1.6.1, 1.6.2, 1.6.3, 1.6.4**
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	**1.7, 1.8, 1.9**
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	**2.3**
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	**1.8, 1.9, 1.10**
10631(a)	Indicate the current population of the service area.	System Description and Baselines	Sections 3.4 and 5.4	**2.3**

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
		and Targets		
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	**2.4, 2.5**
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Section 4.3	**2.4.1**
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	**N/A**
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	**N/A**
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	**N/A**
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	**N/A**
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	**N/A**
10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall	Baselines and Targets	Section 5.8.2	**N/A**

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
	provide the basis for, and data supporting the adjustment.			
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	**6.3**
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	**N/A**
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	**Table 3-1**
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	**3.4**
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	**3.4**
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1	**3.4.2**
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	**3.4, Appendix G**
10631(b)(2)	For unadjudicated basins, indicate whether or not the department has identified the basin as overdrafted, or	System Supplies	Section 6.2.3	**3.4**

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
	projected to become overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.			
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	**3.4**
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	**3.4**
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6.7	**3.3**
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	**3.3, 3.3.2**
10631(h)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	**3.5**
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	**N/A**
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	System Supplies	Section 2.5.1	**1.5**

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
	various water year types.			
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	**3.4.3**
10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	System Supplies (Recycled Water)	Section 6.5.2	**3.4.3**
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	**3.4.3**
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	**3.4.3**
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	**3.4.3**
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	**3.4.3**
10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these	System Supplies (Recycled	Section 6.5.5	**3.4.3**

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
	actions in terms of acre-feet of recycled water used per year.	Water)		
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	**3.4.3**
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	**3.3, 5.2.3**
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 5, 1.9**
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	**5.2.1, 5.2.2, 5.2.3**
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	**3.2.3, 3.2.4, 3.3, 3.3.2**
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 4**
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	**5.2.1, 5.2.2, 5.2.3**
10632(a) and	Provide an urban water shortage	Water	Section 8.1	**7.2**

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
10632(a)(1)	contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage.	Shortage Contingency Planning		
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	**7.3**
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	**7.4**
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	**7.5**
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	**7.6**
10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	**7.7**
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	**7.8**
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	**7.9, Appendix H**
10632(a)(9)	Indicate a mechanism for	Water	Section 8.5	**7.10**

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
	determining actual reductions in water use pursuant to the water shortage contingency analysis.	Shortage Contingency Planning		
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	**N/A**
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	**Section 6**
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	**N/A**
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	**N/A**
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	**1.5, Appendix C**

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
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	**1.5, Appendix C**
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	**N/A**
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 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 C**
10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	**1.5.1, 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	**1.5.1, Appendix C**
10644(a)(1)	Provide supporting documentation that the urban	Plan Adoption,	Section 10.4.4	**1.5.1**

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
	water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Submittal, and Implementation		
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	**N/A**
10645	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	**N/A**

Appendix B: DWR Standard Tables

San Gorgonio Pass Water Agency 2015 Urban Water Management Plan
DWR Standardized Tables

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	AF
NOTES:	

Table 2-4 Wholesale: Water Supplier Information Exchange (select one)	
☐	Supplier has informed more than 10 other water suppliers of water supplies available in accordance with CWC 10631. Completion of the table below is optional. If not completed include a list of the water suppliers that were informed.
	Provide page number for location of the list.
☑	Supplier has informed 10 or fewer other water suppliers of water supplies available in accordance with CWC 10631. **Complete the table below.**
Water Supplier Name *(Add additional rows as needed)*	
City of Banning	
Beaumont Cherry Valley Water District	
Yucaipa Valley Water District	
NOTES:	

Table 3-1 Wholesale: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040*(opt)*
	87,192	96,954	107,809	119,880	133,302	148,226
NOTES: UWMP Table 2-1						

Table 4-1 Wholesale: 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 WUE data online submittal tool*	Additional Description *(as needed)*	Level of Treatment When Delivered *Drop down list*	Volume
Sales to other agencies	Retail purveyor demand	Drinking Water	3,921
		TOTAL	3,921

NOTES: UWMP Table 2-2

Table 4-2 Wholesale: Demands for Potable and Raw Water - Projected

Use Type *(Add additional rows as needed)*	Additional Description *(as needed)*	Projected Water Use *Report To the Extent that Records are Available*				
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.*		2020	2025	2030	2035	2040 *(opt)*
Sales to other agencies	retail purveyor demand	13,169	16,544	20,393	24,414	27,696
	TOTAL	13,169	16,544	20,393	24,414	27,696

Notes: UWMP Table 2-4

Table 4-3 Wholesale: Total Water Demands						
	2015	2020	2025	2030	2035	2040*(opt)*
Potable and Raw Water *From Tables 4-1 and 4-2*	3,921	13,169	16,544	20,393	24,414	27,696
Recycled Water Demand* *From Table 6-4*	0	0	0	0	0	0
TOTAL WATER DEMAND	3,921	13,169	16,544	20,393	24,414	27,696
**Recycled water demand fields will be blank until Table 6-4 is complete.*						
NOTES:						

Table 4-4 Wholesale: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
01/2015	5
** Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.*	
NOTES: UWMP Table 2-3	

Table 6-1 Wholesale: 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
	TOTAL	0	0	0	0	0

NOTES:

Table 6-3 Wholesale: Wastewater Treatment and Discharge Within Service Area in 2015

☑	Wholesale supplier neither distributes nor provides supplemental treatment to recycled water. The supplier will not complete the table below.									
							2015 volumes			
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*	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 Wholesale: Current and Projected Retailers Provided Recycled Water Within Service Area

☑	Recycled water is not directly treated or distributed by the supplier. The supplier will not complete the table below.						
Name of Receiving Supplier or Direct Use by Wholesaler	Level of Treatment *Drop down list*	2015	2020	2025	2030	2035	2040 *(opt)*
Add additional rows as needed							
	Total	0	0	0	0	0	0

NOTES:

Table 6-5 Wholesale: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual		
☑	Recycled water was not used or distributed by the supplier in 2010, nor projected for use or distribution in 2015. The wholesale supplier will not complete the table below.	
Name of Receiving Supplier or Direct Use by Wholesaler	2010 Projection for 2015	2015 actual use
Add additional rows as needed		
Total	0	0
NOTES:		

Table 6-7 Wholesale: 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.					
Pg, 3-8 to 3-9 and Sec	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
	Drop Down Menu	*If Yes, Agency Name*				
Add additional rows as needed						
SBVMWD Purchased Supply	*Yes*	**San Bernardino Valley Municipal Water District**	An average of 2,000 AF is assumed pending a future agreement with SBVMWD	2020	All Year Types	2,000
Other Available Purchases of Supply (SWP)	*Yes*	To be determined	The Agency has a financial plan in place to obtain additional supplies necessary to meet project demands.	2020	All Year Types	1,500
NOTES: See Table 3-1						

Table 6-8 Wholesale: Water Supplies — Actual				
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*	Additional Detail on Water Supply	Total Right or Safe Yield (optional)	Water Quality *Drop Down List*	Actual Volume
Add additional rows as needed				
Purchased or Imported Water	Table A		Drinking Water	10,700
Purchased or Imported Water	Yuba Accord		Drinking Water	300
	Total	0		11,000
NOTES: UWMP Table 3-1				

Table 6-9 Wholesale: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply *Report To the Extent Practicable*									
		2020		2025		2030		2035		2040 *(opt)*	
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*		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											
Purchased or Imported Water	Table A (Existing)	10,700		10,700		10,700		10,700		10,700	
Purchased or Imported Water	Yuba Accord (Existing)	300		300		300		300		300	
Purchased or Imported Water	SBVMWD purchased (planned)	2,000		2,000		2,000		2,000		2,000	
Purchased or Imported Water	Future purchases (planned)	1,500		3,800		7,700		11,700		15,000	
	Total	14,500	0	16,800	0	20,700	0	24,700	0	28,000	0

NOTES: See Table 3-1

Table 7-1 Wholesale: 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		100%
Single-Dry Year	1977		
Multiple-Dry Years 1st Year	1931		
Multiple-Dry Years 2nd Year	1932		
Multiple-Dry Years 3rd Year	1933		
Multiple-Dry Years 4th Year *Optional*	1934		
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. Suppliers may create an additional worksheet for the additional tables.			
NOTES: UWMP Section 5.2			

Table 7-2 Wholesale: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 *(Opt)*
Supply totals *(autofill from Table 6-9)*	14,500	16,800	20,700	24,700	28,000
Demand totals *(autofill fm Table 4-3)*	13,169	16,544	20,393	24,414	27,696
Difference	1,331	256	307	286	304
NOTES:					

Table 7-3 Wholesale: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	2,600	2,800	3,300	3,700	4,100
Demand totals	1,600	3,300	5,500	7,500	9,200
Difference	1,000	(500)	(2,200)	(3,800)	(5,100)
NOTES: UWMP Table 5-3					

Table 7-4 Wholesale: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	7,200	7,900	9,200	10,500	11,600
	Demand totals	3,200	5,000	7,300	9,600	11,500
	Difference	4,000	2,900	1,900	900	100
Second year	Supply totals	7,200	7,900	9,200	10,500	11,600
	Demand totals	3,200	5,000	7,300	9,600	11,500
	Difference	4,000	2,900	1,900	900	100
Third year	Supply totals	7,200	7,900	9,200	10,500	11,600
	Demand totals	3,200	5,000	7,300	9,600	11,500
	Difference	4,000	2,900	1,900	900	100
Fourth year *(optional)*	Supply totals	7,200	7,900	9,200	10,500	11,600
	Demand totals	3,200	5,000	7,300	9,600	11,500
	Difference	4,000	2,900	1,900	900	100
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: UWMP Table 5-4. Supplies and demands assumed to be the same for each year of a multiple dry year period.						

Table 8-1 Wholesale Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Supply Reduction[1]	Water Supply Condition (*Narrative description)*
Add additional rows as needed		
0	0%	Year when at least 62% of contractual SWP Table A imported supplies are available.
1	25%	47%
2	26-45%	46-34%
3	> 45%	Greater than 34%
[1] *One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.*		
NOTES: See Table 7-1		

Table 8-4 Wholesale: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	6,000	6,000	6,000
NOTES: UWMP Table 7-3			

Table 10-1 Wholesale: Notification to Cities and Counties (select one)		
☐	Supplier has notified more than 10 cities or counties in accordance with CWC 10621 (b) and 10642. **Completion of the table below is not required. Provide a separate list of the cities and counties that were notified.**	
	Provide the page or location of this list in the UWMP.	
☑	Supplier has notified 10 or fewer cities or counties. **Complete the table below.**	
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Banning	☑	☑
Beaumont	☑	☑
Calimesa	☑	☑
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
San Bernardino County	☑	☑
Riverside County	☑	☑
NOTES: See Appendix C.		

Appendix C: Public Outreach

San Gorgonio Pass Water Agency

A California State Water Project Contractor
1210 Beaumont Avenue • Beaumont, CA 92223
Phone (951) 845-2577 • Fax (951) 845-0281

January 29, 2016

Michael Rock, City Manager
City of Banning
99 E. Ramsey Street
Banning, CA 92220

2015 Urban Water Management Plan for the San Gorgonio Pass Water Agency

San Gorgonio Pass Water Agency is undertaking review, update, and revision of its Urban Water Management Plan. San Gorgonio Pass Water Agency is located in Riverside County and serves the residents of the Cities of Calimesa, Beaumont, and Banning, as well as other unincorporated areas such as Cherry Valley, Cabazon, Poppet Flat, and the Banning Bench. The Urban Water Management Planning Act requires every "urban water supplier" of a certain size to prepare and adopt an Urban Water Management Plan (UWMP) at least once every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. A complete UWMP is necessary for San Gorgonio Pass Water Agency to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2015 UWMP will include an update of anticipated water demands in the San Gorgonio Pass Water Agency service area. Concurrent with the UWMP Update San Gorgonio Pass Water Agency will revise its Water Shortage Contingency Plan (WSCP). San Gorgonio Pass Water Agency is encouraging participation by land use agencies, water use agencies, and other interested parties in the UWMP and WSCP. San Gorgonio Pass Water Agency would like to extend to your agency an opportunity to meet with us to go over the various elements of the UWMP and WSCP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation programs.

We anticipate that a draft UWMP and WSCP will be available for public review starting in April 2016 and the Agency will hold a public hearing in June 2016, prior to adoption of the UWMP and WSCP. Hence we would like to solicit your input in the near future.

If your agency would like to learn more about the Urban Water Management Plan and Water Shortage Contingency Plan, please contact Jeff Davis, General Manager, 951/845-2577, JDavis@sgpwa.com, no later than February 29, 2016.

Sincerely,

Jeff Davis

San Gorgonio Pass Water Agency

A California State Water Project Contractor
1210 Beaumont Avenue • Beaumont, CA 92223
Phone (951) 845-2577 • Fax (951) 845-0281

January 29, 2016

Elizabeth Gibbs-Urtiaga, Acting City Manager
City of Beaumont
550 E. Sixth St.
Beaumont, CA 92223

2015 Urban Water Management Plan for the San Gorgonio Pass Water Agency

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Sincerely,

Jeffrey W Davis

Jeff Davis

San Gorgonio Pass Water Agency

A California State Water Project Contractor
1210 Beaumont Avenue • Beaumont, CA 92223
Phone (951) 845-2577 • Fax (951) 845-0281

January 29, 2016

Bonnie Johnson, City Manager
City of Calimesa
908 Park Avenue
Calimesa, California 92320

2015 Urban Water Management Plan for the San Gorgonio Pass Water Agency

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Sincerely,

Jeff Davis

San Gorgonio Pass Water Agency

A California State Water Project Contractor
1210 Beaumont Avenue • Beaumont, CA 92223
Phone (951) 845-2577 • Fax (951) 845-0281

January 29, 2016

Steve Weiss, AICP, Planning Director
Riverside Co. Planning Department
P.O. Box 1409
Riverside, CA 92502-1409

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Sincerely,

Jeffrey W Davis

Jeff Davis

San Gorgonio Pass Water Agency

A California State Water Project Contractor
1210 Beaumont Avenue • Beaumont, CA 92223
Phone (951) 845-2577 • Fax (951) 845-0281

June 28, 2016

Steve Weiss, Director of Planning
Riverside County Planning Department
PO Box 1409
Riverside, CA 92502-1409

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San Gorgonio Pass Water Agency

A California State Water Project Contractor
1210 Beaumont Avenue • Beaumont, CA 92223
Phone (951) 845-2577 • Fax (951) 845-0281

June 28, 2016

Art Vela, Public Works Director
City of Banning
PO Box 998
Banning, CA 92220

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Jeffry W Davis

San Gorgonio Pass Water Agency

A California State Water Project Contractor
1210 Beaumont Avenue • Beaumont, CA 92223
Phone (951) 845-2577 • Fax (951) 845-0281

June 28, 2016

Richard Warne, Interim City Manager
City of Beaumont
550 E. 6th Street
Beaumont, CA 92223

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Jeffry W. Davis

San Gorgonio Pass Water Agency

A California State Water Project Contractor
1210 Beaumont Avenue • Beaumont, CA 92223
Phone (951) 845-2577 • Fax (951) 845-0281

June 28, 2016

Bonnie Johnson, City Manager
City of Calimesa
908 Park Avenue
Calimesa, CA 92320

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San Gorgonio Pass Water Agency

A California State Water Project Contractor
1210 Beaumont Avenue • Beaumont, CA 92223
Phone (951) 845-2577 • Fax (951) 845-0281

June 28, 2016

Eric Fraser, General Manager
Beaumont Cherry Valley Water District
PO Box 2037
Beaumont, CA 92223

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Jeffry W. Davis

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A California State Water Project Contractor
1210 Beaumont Avenue • Beaumont, CA 92223
Phone (951) 845-2577 • Fax (951) 845-0281

June 28, 2016

Joe Zoba, General Manager
Yucaipa Valley Water District
PO Box 730
Yucaipa, CA 92399

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Sincerely,

Jeffry W. Davis

Yucaipa Valley Water District

12770 Second Street • P. O. Box 730 • Yucaipa, California 92399-0730
(909) 797-5117 • Fax: (909) 797-6381 • www.yvwd.dst.ca.us

September 30, 2016

Mr. Jeff Davis, General Manager
San Gorgonio Pass Water Agency
1210 Beaumont Avenue
Beaumont, California 92223

Subject: Demand Projections by the Yucaipa Valley Water District

Dear Mr. Davis:

I have reviewed your email message dated Wednesday, September 21, 2016 (attached), regarding *Table 12-16, SGPWA Wholesale Supplies - Existing and Planned Sources* contained within the Yucaipa Valley Water District's ("District") Urban Water Management Plan. As shown below, Table 12-16 summarized the projected imported water demands needed by the Yucaipa Valley Water District from the San Gorgonio Pass Water Agency to meet our projected water demands.

Table 12-16. SGPWA Wholesale Supplies – Existing and Planned Sources of Water (AF)

Imported Water Demands	2015	2020	2025	2030	2035	2040
Drinking Water Demands: Yucaipa Valley Water Filtration Facility	454	909	767	962	1,191	1,444
Conjunctive Use Demands: Local Water Banking	0	1,200	1,200	1,200	1,200	1,200
New Development Long-Term Supply Sustainability Program	0	2,504	3,040	3,596	4,344	3,407
Total	454	4,313	5,007	5,758	6,735	6,051

The following explanation should help clarify the imported water demands contained within Table 12-16:

- *Drinking Water Demands: Yucaipa Valley Water Filtration Facility* - This row within Table 12-16 identifies the quantity of imported water needed to be delivered at Yucaipa Valley Turnout No. 1 for the Yucaipa Valley Regional Water Filtration Facility to provide drinking water to area served within the boundary of both Yucaipa Valley Water District and San Gorgonio Pass Water Agency. This quantity of imported water is needed to meet existing water demands that are expected to increase in the future.
- *Conjunctive Use Demands: Local Water Banking* - This row within Table 12-16 identifies the quantity of imported water needed to be delivered to either the Beaumont Avenue

Recharge Facility or the Beaumont Cherry Valley Water District's Spreading Basins to replenish groundwater that is currently extracted by the Yucaipa Valley Water District within the Beaumont Basin. This is a high priority for the Yucaipa Valley Water District in compliance with the San Gorgonio Pass Water Agency Act, Chapter 101-15.5. This quantity of imported water is needed to meet unfulfilled prior year water demands by the San Gorgonio Pass Water Agency and existing water demands that are expected to provide a baseline of 1,200 acre feet per year of water demands. The Yucaipa Valley Water District will be prepared to recharge this quantity of imported water prior to 2020.

- *New Development Long-Term Supply: Sustainability Program* - This row within Table 12-16 identifies the quantity of imported water needed to be delivered to either the Beaumont Avenue Recharge Facility or the Beaumont Cherry Valley Water District's Spreading Basins to ensure there is sufficient water resources available to sustain new development within the service area of the Yucaipa Valley Water District.

It is my understanding that the Regional Urban Water Management Plan prepared by the San Gorgonio Pass Water Agency will provide the urban water suppliers within your service area with sufficient information to identify and quantify the available imported water supplies assigned to each agency and projected in increments of five years, from 2015 through 2035 and for average, single, and multiple-dry years. In order to facilitate the review of the Regional Urban Water Management Plan, I would appreciate three hardcopies of the Draft San Gorgonio Pass Water Agency Regional Urban Water Management Plan. Please forward the copies to Jennifer Ares, Water Resource Manager at our main office.

Please do not hesitate to contact me if there are any further questions regarding the Yucaipa Valley Water District's Urban Water Management Plan.

Sincerely,

Joseph B. Zoba
General Manager

cc: Jennifer Ares, Water Resource Manager

Wed 09/21/2016 7:29 AM

Jeff Davis <JDavis@sgpwa.com>

UWMP Numbers

To Joseph Zoba

Joe,

Here is a table from your UWMP that gets us to the 4313 AF demand on the Agency in 2020:

Table 12-16. SGPWA Wholesale Supplies – Existing and Planned Sources of Water (AF)

Imported Water Demands	2015	2020	2025	2030	2035	2040
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Local Water Banking	0	1,200	1,200	1,200	1,200	1,200
New Development Long-Term Supply						
Sustainability Program	0	2,504	3,040	3,596	4,344	3,407
Total	454	4,313	5,007	5,758	6,735	6,051

So that I can explain this in my UWMP, can you please give me a better idea of what the 1200 AF is for? I'm not sure we have ever talked about that, or if we have, I forget. That would really help me in putting together our UWMP. I get the other numbers; I think they are pretty clear. The 2504 is for your sustainability program. Any help you can provide would be great.

On a separate but related topic, I have been thinking about our cooperative agreement and the pressure from some developers to move forward immediately. I was thinking that we (you) could make it an option, if they want to be assured of proceeding this year (or, more likely, next year), to add to their fees enough water to buy spot water for their sustainability water. I could probably come up with a rough price for that. That way, if a developer wants assurance of getting water next year, he could get it by paying extra. I would price the spot water at a high rate and if we get it for less money, we would provide a refund to the developer for funds not used. If they didn't want to pay extra, then they would be taking a chance that we would have water available next year over and above annual demands for their sustainability water. If it's a wet year, they would probably get it. If it's a dry or average year, they probably would not. What do you think of providing this as an option?

Jeff Davis
San Gorgonio Pass Water Agency
General Manager
951/845-2577

Appendix D: Climate Change

Appendix G: Climate Change Vulnerability Checklist

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Climate Change Vulnerability Checklist

Changes related to climate change in the IRWM guidelines made between the 2010 and 2012 versions need to be addressed. The new IRWM plan must include a list of prioritized vulnerabilities based on the vulnerability assessment checklist as well as a plan, program, or methodology for further data gathering and analysis of the prioritized vulnerabilities. Below is the vulnerability assessment checklist for the Upper Santa Ana River IRWM planning area.

Water Demand:

Are there major industries that require cooling/processed water in your planning region?

- The Mountain View power plant brings power to more than 685,000 homes. This high energy output requires the plant to utilize municipal effluent as well as ground water for cooling. The facility loses 3,300 gallons of water per minute to evaporation from the cooling towers, but for every pound of water that evaporates approximately 1,000 BTUs of heat are extracted. It also has a water treatment plant on site that recovers 75-80% of water that would normally have been disposed of. This recycling process has kept Redlands waste water fees at some of the lowest levels in the state. Despite the fact that the plant uses thirty percent less energy compared to other plants, it is the highest polluting power plant in the state; producing 1.85 million metric tons of carbon dioxide per year.

Does water use vary by more than 50% seasonally in parts of your region?

- The Inland Empire climate varies greatly from summer to winter, and therefore water demand varies accordingly. There is a greater demand for irrigation needs during the hotter season that drives up the per capita water use.

Are crops in your region climate sensitive? Would shifts in daily heat patterns, such as how long heat lingers before night-time cooling, be prohibitive for some crops?

- Citrus trees are not tolerable of below freezing temperatures. Colder winters with freezing nights have the potential to cause significant damage to citrus crops. In response to higher temperatures, evapotranspiration rates of the plants may increase, requiring more water to be used on warmer days

Do groundwater supplies in your region lack resiliency after drought events?

- Typically groundwater supplies do not lack resiliency because groundwater is replenished and stored in wet years.

Are water use curtailment measures effective in your region?

- Conservation efforts in the area include The Water Conservation Education Program, Weather Based Irrigation Controllers Program, “climate appropriate” plant promotion with Home Depot stores and other stores and nurseries, and the water conservation demonstration garden at California State University San Bernardino. These programs have begun to address the conservation needs of the area without implementing direct curtailment measures. Commercial, industrial, and institutional water reduction plans are also in place.

Are some in stream flow requirements in your region either currently insufficient to support aquatic life, or occasionally unmet?

- The in stream flows are sufficient to support aquatic life because natural flows are augmented by Publically Owned Treatment Works flows that are highly treated.

Water Supply:

Does a portion of the water supply in your region come from snowmelt?

- The water supply in the region does not come from snowmelt.

Does part of your region rely on water diverted from the Delta, imported from the Colorado River or imported from other climate-sensitive systems outside of your region?

- State Water Project water has been made available to East Valley. The water for the region is currently 57% ground water, 24% State Water Project water, 17% surface water, and 2% recycled water. The region does not rely on any water imported from the Colorado River.

Does part of your region rely of coastal aquifers? Has salt intrusion been a problem in the past?

- The region does not rely on coastal aquifers, but salt intrusion could affect the function of the State Water Project, which could ultimately have an impact on water supplies.

Would your region have difficulty in storing carryover supply surpluses from year to year?

- The region would only have issues storing surplus water in times when the basins are already saturated.

Has your region faced a drought in the past during which it failed to meet local water demands?

- The region has not faced a drought in which it was unable to meet local water demands.

Does your region have invasive species management issues at your facilities, along conveyance structures, or in habitat areas?

- The region has two invasive species, the Giant Reed and the Tamarisk Annual Grass. The Giant Reed was introduced in California in the 1820's in an attempt to help control erosion, but has since become an invasive plant. It has increased the fire fuel by 30% in the Santa Ana Basin area and also has the potential to cause major issues during floods. In addition to these issues, the Giant Reed uses 56,200 acre-ft per year in the Santa Ana River, decreasing the amount of water available to the population. Tamarisk was introduced as an ornamental planet, but has become invasive as it absorbs a large amount of water and creates salt deposits. Its seeds are dispersed by wind, have no dormancy requirements, and have a 24 hour germination period, allowing it to spread quickly and easily.

Water Quality:

Are increased wildfires a threat in your region? If so, does your region include reservoirs with fire-susceptible vegetation nearby which could pose a water quality concern from increased erosion?

- Wildfires are a threat in the region, especially during dry summers.

Does part of your region rely on surface water bodies with current or recurrent water quality issues related to eutrophication, such as low dissolved oxygen or algal blooms? Are there other water quality constituents potentially exacerbated by climate change?

- Big Bear Lake has had issues with high nitrogen and nutrient levels that promote algal growth. Although the lake is no longer a main water supply source, its contaminant levels affect recreational activity. The Middle Santa Anna River Watershed has been found to have issues with pathogens and high coliform count.

Are seasonal low flows decreasing for some water bodies in your region? If so, are the reduced flows limiting the water bodies' assimilative capacity?

- Flow levels for the water bodies in the region have been consistent with weather conditions.

Are there beneficial uses designated for some water bodies in your region that cannot always be met due to water quality issues?

- Big Bear Lake is a popular recreational area for swimming, boating and fishing in the San Bernardino Mountains. It was originally created by Bear Valley Mutual Water Company to serve as a storage reservoir in order to provide agricultural water to the customers downstream. Big Bear Lake faces many water quality issues that have the potential to affect its recreational uses. In 1990 Big Bear Lake was added to California's list of impaired water bodies by the Santa Ana Regional Water Quality Control Board. A Total Maximum Daily Load was implemented in 2007 in order to protect the lake's beneficial uses. Various water bodies in the Middle Santa Ana River Watershed were also added to the list of impaired water bodies in 1994 because the fecal coliform objective was exceeded, ultimately affecting the water contact recreation of the area. The table below lists the pollutants affecting the Big Bear Lake Watershed and the Middle Santa Ana Watershed.

Table 7: Pollutants Effecting Water bodies

Santa Ana Region Pollutants	
Water Body	Pollutants
Big Bear Lake Watershed	
Big Bear Lake	Metals, Noxious aquatic plants and Nutrients, Sedimentation/Siltation, and Mercury
Grout Creek	Metals and Nutrients
Knickerbocker Creek	Metals and Pathogens
Rathbone Creek	Nutrients and Sedimentation/Siltation
Summit Creek	Nutrients
Middle Santa Ana River Watershed	
Chino Creek, Reach 1	Pathogens
Chino Creek, Reach 2	High Coliform Count
Cucamonga Creek, Valley Ranch	High Coliform Count
Mill Creek (Prado Area)	Pathogens
Santa Ana River, Reach 3	Pathogens and Nitrate
Prado Park Lake	Pathogens

Does part of your region currently observe water quality shifts during rain events that impact treatment facility operation?

- The region does not observe water quality shifts during rain events that impact water treatment facility operations.

Sea Level Rise:

Has coastal erosion already been observed in your region?

- Coastal erosion has not been observed in the region.

Are there coastal structures, such as levees or breakwaters, in your region?

- There are no coastal structures in the region.

Is there significant coastal infrastructure, such as residences, recreation, water and wastewater treatment, tourism, and transportation at less than six feet above mean sea level in your region?

- There is no infrastructure less than six feet above mean sea level.

Are there climate-sensitive low-lying coastal habitats in your region?

- There are no climate-sensitive low-lying coastal habitats in the region.

Are there areas in your region that currently flood during extreme high tides or storm surges?

- There are no areas in the region that flood during extreme high tides or storm surges do to coastal waters.

Is there land subsidence in the coastal area of your region?

- There is no land subsidence in the coastal area of the region.

Do tidal gauges along the coastal parts of your region show an increase over the past several decades?

- There are no coastal parts in the region.

Flooding:

Does critical infrastructure in your region lie within the 200-year floodplain?

- The 200-year floodplain is not available at this time, but infrastructure such as Crafton Elementary School lies in the 100 year floodplain provided by FEMA for The Zanja as well as many buildings along the Santa Ana.

Does part of your region lie within the Sacramento-San Joaquin Drainage District?

- The region does not lie within the Sacramento-San Joaquin Drainage District.

Does aging critical flood protection infrastructure exist in your region?

- Flood protection in the area has been in place for several decades, but improvements have been made in the last decade. The federal Santa Ana River Mainstream project includes the Seven Oaks Dam, Prado Dam, and other flood control facilities along the Santa Ana River, which provide flood protection to the residents of San Bernardino, Riverside, and Orange Counties. The Seven Oaks Dam was completed in 1999 and the construction of the SAR project began in 1989.

Have flood control facilities (such as impoundment structures) been insufficient in the past?

- Flood control facilities have failed as recently as December 2010, when several creeks and debris basins overflowed and flooded the City of Highland.

Are wildfires a concern in parts of your region?

- Wildfires have always been a concern for the region. An example would be the Old Fire in 2003, which burned 91,281 acres, destroyed 993 homes, and killed 6 people. During this incident The East Valley Water District advised residents in certain areas to boil water for drinking and eating in order to ensure that the water was safe to drink.

Ecosystem and Habitat Vulnerability:

Does your region include inland or coastal aquatic habitats vulnerable to erosion and sedimentation issues?

- The region does not include inland or coastal aquatic habitats vulnerable to erosion.

Does your region include estuarine habitats which rely on seasonal freshwater flow patterns?

- The region does not include estuarine habitats.

Do climate-sensitive fauna or flora populations live in your region?

- Climate sensitive plants live in the region.

Do endangered or threatened species exist in your region? Are changes in species distribution already being observed in parts of your region?

- Endangered species live in the region.

Does the region rely on aquatic or water-dependent habitats for recreation or other economic activities?

- The region does rely on aquatic habitats for recreational purposes, as is the case for Big Bear Lake and Middle Santa Ana.

Are there rivers in your region with quantified environmental flow requirements or known water quality/quantity stressors to aquatic life?

- There are rivers in the region with water quality stressors such as Middle Santa Ana.

Do estuaries, coastal dues, wetlands, marshes, or exposed beaches exist in your region? If so, are coastal storms possible/frequent in your region?

- Exposed coastal areas do not exist in the region.

Does your region include one or more of the habitats described in the Endangered Species Coalition's Top 10 habitats vulnerable to climate change?

- The region does not include any of the habitats described in the Endangered Species Coalition's Top 10 habitats vulnerable to climate change.

Are there areas of fragmented estuarine, aquatic, or wetland wildlife habitat within your region? Are there movement corridors for species to naturally migrate? Are there infrastructure projects planned that might preclude species movement?

- The region is not aware of fragmented wildlife habitat within the region, or infrastructure projects planned that might preclude species movement.

Hydropower:

Is hydropower a source of electricity in your region?

- The hydropower stations located in the area include the Santa Ana No 1 & 2, Mill Creek No 2 & 3, San Gorgonio, and Lytle Creek. These stations are owned and operated by the Southern California Edison Company and produce 12.63 MW of electricity. Below lists the generating capacity of each location.

Hydropower Station Capacity	
Hydropower Station	**Generating Capacity (MW)**
Santa Ana No 1 & 2	6.3
Mill Creek No 1 & 2	3.23
San Gorgonio	2.63
Lytle Creek	0.45
Devil Canyon	276.46
Fontana Sandhill WTP Hydropower Facility	0.31

Are energy needs in your region expected to increase in the future? If so, are there future plans for hydropower generating facilities or conditions for hydropower generation in your region?

- There are currently no future plans for more hydropower generation facilities in the region.

The above checklist demonstrates the areas for which the region is most vulnerable.

Appendix E: AWWA Water Loss

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: San Gorgonio Pass Water Agency (CA3610019)
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' ---------->

	Grading	Value	Pcnt:	Value:	
Volume from own sources:	10	0.000	acre-ft/yr			acre-ft/yr
Water imported:	7	3,481.000	acre-ft/yr	7		acre-ft/yr
Water exported:	10	0.000	acre-ft/yr			acre-ft/yr
WATER SUPPLIED:		**3,481.000**	acre-ft/yr			

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

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

	Grading	Value	Pcnt:	Value:	
Billed metered:	10	3,476.000	acre-ft/yr			
Billed unmetered:	10	0.000	acre-ft/yr			
Unbilled metered:	10	0.000	acre-ft/yr			
Unbilled unmetered:	10	0.000	acre-ft/yr		0.000	acre-ft/yr
AUTHORIZED CONSUMPTION:		**3,476.000**	acre-ft/yr			

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)

5.000 acre-ft/yr

Apparent Losses

	Grading	Value	Pcnt:	Value:	
Unauthorized consumption:	5	0.000	acre-ft/yr		0.000	acre-ft/yr
Customer metering inaccuracies:	10	3.479	acre-ft/yr	0.10%		acre-ft/yr
Systematic data handling errors:	5	0.000	acre-ft/yr		0.000	acre-ft/yr
Apparent Losses:		**3.480**	acre-ft/yr			

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **1.520** acre-ft/yr

WATER LOSSES: **5.000** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **5.000** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

	Grading	Value		
Length of mains:	10	5.4	miles	
Number of active AND inactive service connections:	10	1		
Service connection density:		0	conn./mile main	
Are customer meters typically located at the curbstop or property line?		No		
Average length of customer service line:	10	0.0	ft	(length of service line, beyond the property boundary, that is the responsibility of the utility)
Average operating pressure:	5	100.0	psi	

COST DATA

	Grading	Value		
Total annual cost of operating water system:	10	$13,380,700	$/Year	
Customer retail unit cost (applied to Apparent Losses):	8	$12.30	$/1000 gallons (US)	
Variable production cost (applied to Real Losses):	8	$157.00	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 80 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: Water imported
2: Unauthorized consumption
3: Systematic data handling errors

Appendix F: Yuba Accord

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

AGREEMENT FOR THE SUPPLY AND CONVEYANCE OF WATER BY THE DEPARTMENT OF WATER RESOURCES OF THE STATE OF CALIFORNIA TO THE PARTICIPATING STATE WATER PROJECT CONTRACTORS UNDER THE DRY YEAR WATER PURCHASE PROGRAM SWPAO NO. 08-827

THIS AGREEMENT is entered into as of the _____day of _____, 2014, pursuant to the provisions of the California Water Resources Development Bond Act, the State Central Valley Project Act, and other applicable laws of the State of California, between the Department of Water Resources of the State of California, herein referred to as "DWR," and Mojave Water Agency, a public agency in the State of California, herein referred to as the "AGENCY." DWR and the AGENCY are herein referred to separately as the "Party" and collectively as the "Parties."

RECITALS

A. In 2008 and probably for several years to come, because of hydrologic conditions and/or regulatory constraints, the operation of the State Water Project ("SWP") by DWR and the operation of the Central Valley Project ("CVP") by the United States Bureau of Reclamation ("Reclamation") may result in less water being made available to the south-of-Delta CVP water service contractors and the SWP contractors. In anticipation of such potential conditions, DWR is initiating a dry year water purchase program to acquire water from voluntary sellers to augment the water supplies.

B. The Yuba County Water Agency ("Yuba") is engaged in the Yuba River Accord initiative ("Yuba River Accord") to resolve issues associated with operation of the Yuba Project in a way that protects lower Yuba River fisheries and local water-supply reliability, while providing revenues for local flood control projects, water to use for protection and restoration of Delta fisheries, and improvements in state-wide water supply management.

C. The Yuba River Accord includes three major elements, all of which must be in place for the Yuba River Accord to become effective: (1) the Fisheries Agreement (dated November 3, 2007) to provide higher flows for fish in the lower Yuba River under certain conditions, (2) Conjunctive Use Agreements between Yuba and water districts within Yuba County for implementing a conjunctive use and water use efficiency program; and (3) the "Agreement for the Long-Term Purchase of Water from Yuba County Water Agency by the Department of Water Resources" (dated December 4, 2007) ("Yuba Water Purchase Agreement").

D. DWR and Yuba entered into the Yuba Water Purchase Agreement as part of the Yuba River Accord to purchase specified Components of water for the benefit of the EWA, the SWP contractors, and the member agencies of the San Luis & Delta-Mendota Water Authority ("Authority") to resolve potential conflicts concerning the accounting for water that Yuba will release pursuant to the Fisheries Agreement.

E. Reclamation determined to not be a party to the Yuba Water Purchase Agreement. Yuba and DWR will amend the Yuba Water Purchase Agreement at such time as Reclamation is willing to become a party thereto, subject to Reclamation and DWR

entering into a separate agreement for the allocation of, and payment for, water under the Yuba Water Purchase Agreement.

F. Consistent with the Yuba Water Purchase Agreement, when Yuba makes water available to DWR under the Yuba River Accord for benefit of the SWP contractors and the Authority, DWR intends to offer the water under the dry year water purchase program to the Participating SWP Contractors and to the Authority as set forth herein.

G. The SWP contractors and the Authority invested significant resources to assist DWR and Yuba with the development of the Yuba River Accord, the Yuba Water Purchase Agreement, and supporting documentation.

H. The Parties desire to enter into this water supply and conveyance agreement whereby DWR will purchase water under the Yuba River Accord for the dry year water purchase program to make available for purchase by the SWP contractors, including the AGENCY, and the Authority.

AGREEMENT

Now Therefore, in accordance with the Recitals and in consideration of the terms and conditions herein, the Parties agree to the following:

1. DEFINITIONS

When used in this Agreement, the following definitions will apply:

"**Balanced Conditions**" means the hydrologic condition of the Delta as defined in the November 24, 1986 "Agreement between the United States of America and the State of California for Coordinated Operations of the Central Valley Project and the State Water Project."

"**Banks Pumping Plant**" means a SWP facility in the south Delta owned and operated by DWR.

"CALFED" means the joint federal and California program intended to develop and implement a long-term comprehensive plan that will, among other purposes, restore ecological health of the Bay-Delta System and improve water project management.

"Carriage Water" means the water losses due to increased Delta outflow necessary to maintain baseline Delta salinity conditions as determined by DWR, that are associated with Delivered Transfer Water or Stored Released Transfer Water that is exported by CVP or SWP Delta pumping facilities.

"Component 1 Water" means the water supplies available to DWR pursuant to Section 5 of the Yuba Water Purchase Agreement.

"Component 2 Water" means the water supplies available to DWR pursuant to Section 6 of the Yuba Water Purchase Agreement.

“Component 3 Water” means the water supplies available to DWR pursuant to Section 7 of the Yuba Water Purchase Agreement.

“Component 4 Water” means the water supplies available to DWR pursuant to Section 8 of the Yuba Water Purchase Agreement.

“**Conference Year**” means a Water Year for which the North Yuba Index is less than 500,000 acre-feet, calculated according to the procedures and formulas set forth in Exhibits 4 and 5 of the Fisheries Agreement, and using the latest available forecasts for the Water Year.

“Delivered Transfer Water” means Released Transfer Water from Yuba that is accounted as being exported by the SWP and the CVP, or contributing to exports, as described in Section 5 of Exhibit 1 of the Yuba Water Purchase Agreement.

"EWA" means the Environmental Water Account program described in the CALFED Record of Decision and the EWA Operating Principles Agreement (August 28, 2000, as extended in September 2004), as extended by amendment and supplemental approvals, or a long-term environmental water account program.

“**Fisheries Agreement**” means the agreement among Yuba, the California Department of Fish and Game, and other parties, which is part of the Yuba River

Accord, and under which Yuba operates the Yuba Project to provide higher flows in the lower Yuba River under certain conditions to improve fisheries protection.

“Final Classification” means the year-type classification for the Sacramento River region in the May issue of DWR’s Bulletin 120.

"Management Committee" means the committee, consisting of one representative each from Yuba, DWR, Reclamation, the CALFED fishery agencies on behalf of EWA, SWP contractors, and the Authority, established under Section 14 ("Technical Committee and Management Committee") of the Yuba Water Purchase Agreement.

“Participating SWP Contractors” means all SWP contractors that have executed an **“**Agreement for the Supply and Conveyance of Water By the Department of Water Resources of the State of California to the Participating SWP Contractors Under the Dry Year Water Purchase Program” on or before April 1, 2008.

“**Purchased Water**” means the supply of Component 1 Water that is not used by the EWA as provided in Section 3.B.1.a, Component 2 Water, Component 3 Water, and Component 4 Water that has been delivered by Yuba to DWR that is accounted for as Delivered Transfer Water in the manner set forth in Exhibit 1 (“Scheduling and Accounting Principles”) of the Yuba Water Purchase Agreement

and made available for the dry year water purchase program. Purchased Water includes Carriage Water or water used as Delta outflow when the Export/Inflow ratio is controlling in the time period of July 1 to January 31.

“SWP Long-Term Water Supply Contract” means the long-term water supply contract between the Parties, as amended.

"Technical Committee" means the committee, consisting of technical representatives from Yuba, DWR, Reclamation, the CALFED fishery agencies on behalf of EWA, SWP contractors, and the San Luis & Delta-Mendota Water Authority, established under Section 14 ("Technical Committee and Management Committee") of the Yuba Water Purchase Agreement.

"Water Accounting Year" means the twelve-month period commencing January 1 through December 31.

“**Water Year**” means the twelve-month period from October 1 of one year through September 30 of the following year. For this Agreement, each Water Year will be classified: (1) as "Wet," "Above-Normal," "Below-Normal," "Dry" or "Critical," based on the Sacramento Valley Water Year Hydrologic Classification in Figure 1 on page 188 of the State Water Resources Control Board's March 15, 2000, Revised Water-Right Decision 1641; or (2) as a "Conference Year."

"Yuba Project" means the Yuba River Development Project, including New Bullards Bar Dam and Reservoir on the North Yuba River.

"Yuba River Accord" means Yuba's initiative as described in Recitals B and C of this Agreement.

"Yuba Water Purchase Agreement" means the Agreement for the Long-Term Purchase of Water from Yuba County Water Agency by the Department of Water Resources, which is attached hereto as Exhibit A.

2. TERM OF AGREEMENT

A. This Agreement will become effective upon execution by the Parties and will terminate on December 31, 2025, provided, however, the Parties may terminate this Agreement on December 31, 2015, if the Parties fail to amend this Agreement pursuant to Section 3.B.5 below and as necessary to address amendments made to the Yuba Water Purchase Agreement regarding the quantity and pricing of water pursuant to Section 15 thereof; provided further that this Agreement shall remain in effect beyond the termination dates set forth above to the extent required to enable the parties to satisfy all obligations then existing or outstanding.

3. PURCHASED WATER

A. METHODS FOR ESTABLISHING ALLOCATIONS AND SHARING OF WATER

1. DWR will make available to the Participating SWP Contractors, as a group, fifty percent of the following types of water: Component 1 Water that is not used by the EWA as provided in Section 3.B.1.a, Component 2 Water, Component 3 Water, and Component 4 Water.
2. If the AGENCY does not take some or all of the water made available to it pursuant to Section 3.A.1, then DWR will make the water not taken by the AGENCY available first to the other Participating SWP Contractors pursuant to 3.A.4 and then to the Authority pursuant to Section 3.A.5; provided, that the AGENCY will purchase all Delivered Transfer Water DWR is required to purchase from Yuba and that is made available to the AGENCY pursuant to Sections 3.A.1. through 3.A.4 if said water is not purchased by the Participating SWP Contractors or the Authority.
3. DWR will make available to the Participating SWP Contractors and the Participating SWP Contractors may accept and purchase Component 1 Water that is not used by EWA as provided in Section 3.B.1.a, Component 2 Water, Component 3 Water, and Component 4 Water that is made available to the Authority, if the Authority elects to not take said water.
4. All water made available to the Participating SWP Contractors pursuant to Sections 3.A.1 through 3.A.3 shall be allocated among the Participating SWP Contractors as follows:

a) DWR will allocate to the AGENCY its share of Water that is made available to the Participating SWP Contractors under Sections 3.A.1 through 3.A 3 above based on the AGENCY'S maximum Table A amount in its SWP Long-Term Water Supply Contract as a proportion of the total Table A amounts provided under the Long-Term Water Supply Contracts of the Participating SWP Contractors.

b) If any Participating SWP Contractor does not request some or any of its share of the water made available pursuant to Section 3.A.3.a above, the remaining Participating SWP Contractors will have the first right to that water, and DWR will allocate that water among the remaining Participating SWP Contractors, but excluding from the calculation the maximum Table A amount of the Participating SWP Contractor(s) not requesting their full allocation. This process will repeat until all water made available pursuant to this Section 3.A.3 is allocated or no Participating SWP Contractor requests the remaining water made available.

5. DWR will offer to the Authority any Component 1 Water that is not used by the EWA as provided in Section 3.B.1.a, Component 2 Water, Component 3 Water, and Component 4 Water made available pursuant to this Section and remaining unrequested after completing the allocation processes set forth above in Sections 3.A.4.

B. TYPES AND PRICES OF PURCHASED WATER

The AGENCY shall pay for Delivered Transfer Water made available to and accepted by the AGENCY under section 3.A above in accordance with the following sections:

1. COMPONENT 1 WATER

a) While the EWA is in effect, if the EWA does not use all of the Component 1 Water, Component 1 Water unused by the EWA will be allocated and made available by DWR to the AGENCY pursuant to Section 3.A above. The AGENCY will pay for Component 1 Water that is made available to it and accounted for as Purchased Water at the same price per acre-foot as Component 4 Water.

b) If EWA terminates and Yuba remains obligated to provide Component 1 Water, the Parties agree that Component 1 Water remaining to be delivered under the Yuba Water Purchase Agreement will be managed annually, as follows: (1) Component 1 Water in any year will be used to enhance water supply reliability of the Delta export facilities by off-setting new mandatory restrictions imposed on the CVP and SWP, including those being imposed by the federal court order in *NRDC v. Kempthorne*, or through a subsequent biological opinion for the conservation or protection of fish, and (2) if any Component 1 Water remains after off-setting the restrictions set forth in subsection (1) above, then the remaining Component 1 Water will be used as determined by DWR in

close coordination with the California Department of Fish and Game consistent with the water supply reliability project requirements of the funding source from which this water was purchased (Chapter 7(d) of Proposition 50, California Water Code Section 79550(d)).

2. COMPONENT 2 WATER

   a) For Component 2 Water that is accounted for as Purchased Water and made available in a Water Year that has a Final Classification as Dry, the AGENCY will pay $75.00 per acre-foot.

   b) For Component 2 Water that is accounted for as Purchased Water and made available in a Water Year that has a Final Classification as Critical, the AGENCY will pay $93.75 per acre-foot.

3. COMPONENT 3 WATER

   For Component 3 Water that is accounted for as Purchased Water and made available to the AGENCY, the AGENCY will pay:

   a. $25.00 per acre-foot in a Wet Year;

   b. $50.00 per acre-foot in an Above-Normal Year;

   c. $75.00 per acre-foot in a Below-Normal Year;

   d. $100.00 per acre-foot in a Dry Year;

   e. $125.00 per acre-foot in a Critical Year.

4. COMPONENT 4 WATER

   For Component 4 Water that is accounted for as Purchased Water and made available to the AGENCY, the AGENCY will pay:

a. $25.00 per acre-foot in a Wet Year;

b. $50.00 per acre-foot in an Above-Normal Year;

c. $75.00 per acre-foot in a Below-Normal Year;

d. $100.00 per acre-foot in a Dry Year;

e. $125.00 per acre-foot in a Critical Year.

5. POSSIBLE FUTURE ADJUSTMENTS TO QUANTITIES AND PRICES.

If the provisions of Section 15 of the Yuba Water Purchase Agreement require changes to the quantity or pricing of water available therein, the Parties agree that amendment of this agreement for such purposes will be a condition precedent of any amendment of the Yuba Water Purchase Agreement pursuant to Section 15 thereof. The Parties agree to meet and confer and negotiate in good faith potential changes to this Agreement.

6. UNCOMMITTED WATER

a. If Yuba notifies DWR of the availability of uncommitted Delivered Transfer Water prior to accounting for the water in the Holding Account, as set forth in Section 7.4 of Exhibit 1 (“Scheduling and Accounting Principles”) of the Yuba Water Purchase Agreement, DWR will notify the AGENCY, the Participating SWP Contractors, and the Authority of the availability of such water by September 30 of that year. Such water will be offered to the Participating SWP Contractors and to the Authority consistent with Section 3.A.

i. Within 30 days of such notice, the AGENCY will notify DWR of its request for an amount of the uncommitted water that it will purchase, if any.

ii. The amount of this water actually purchased by the AGENCY, the Participating SWP Contractors, and the Authority will be based on requests for this water by the AGENCY, the Participating SWP Contractors, and the Authority, and will not exceed the amount of water made available by Yuba. The Purchased Water that DWR will allocate to the AGENCY will be the lesser of the amount of water requested by the AGENCY or the amount allocated to the AGENCY in the manner set forth in Section 3.A above.

iii. The AGENCY will pay DWR the applicable purchase price for the water determined by the Water Year in which the water is accounted for as Delivered Transfer Water at prices set forth in Section 3.B above.

b. If Yuba has credited uncommitted Delivered Transfer Water to the Holding Account as set forth in Section 7.4 of Exhibit 1 (“Scheduling and Accounting Principles”) of the Yuba Water Purchase Agreement and the water remains in storage until the subsequent Water Accounting Year, then DWR will offer the water in the Holding Account to the Participating SWP Contractors and the Authority consistent with Section 3.A.

i. In the year that the AGENCY elects to take water from the Holding Account, that water will be credited toward the AGENCY's prorata share of the Component 3 Water with any additional deliveries credited as Component 4 Water that is accounted for as Purchased Water for the AGENCY.

ii. The AGENCY will pay DWR the applicable purchase price for the water determined by the Water Year in which the water was accounted for as Delivered Transfer Water as set forth in Exhibit 1 of the Yuba Water Purchase Agreement and at prices set forth in Section 3.B above.

4. REQUESTS, SCHEDULING AND CONVEYANCE

Scheduling and conveyance is subject to DWR's determination of conveyance capacity in SWP facilities. Scheduling and conveyance will be dependent on releases by Yuba, including the flow schedule for the lower Yuba River as provided for in the Fisheries Agreement, the North Yuba Index or the Yuba River Index, capacity of CVP and SWP facilities, and Bay-Delta conditions. In order to meet the goals of Section 6, the Parties may modify in writing the dates established in this Section 4 without amending this Agreement.

A. Requests and Scheduling

1. On or before April 11 of each Water Accounting Year, DWR will inform the AGENCY of the potential quantity of Component 1 Water if not used by the

EWA as provided in Section 3.B.1.a, Component 2 Water, Component 3 Water, and Component 4 Water that is available to the Agency.

2. On or about April 11 of each Water Accounting Year, or as soon thereafter as practicable, the AGENCY will submit an initial request to DWR for delivery of Component 1 Water if not used by the EWA as provided in Section 3.B.1.a, Component 2 Water, Component 3 Water, and Component 4 Water and an initial monthly schedule for delivery of the requested water. That initial monthly schedule will include the quantity of each component of water the AGENCY would like to purchase from DWR.
3. DWR and the AGENCY will, between April 11 and May 19, confer on the allocation of water under Section 3A.
4. Within 5 business days of notice from DWR that there has been a change in the amount of water available, but no later than May 19, the AGENCY will provide DWR with its modified request for each component of water.
5. No later than May 19, DWR will notify the AGENCY of the quantity of Component 1 Water if not used by the EWA as provided in Section 3.B.1.a, Component 2 Water, Component 3 Water, and Component 4 Water that has been allocated to the Agency and that the AGENCY will schedule pursuant to Section 4.A.7 below.
6. The Parties recognize that no later than May 15 DWR must notify Yuba of the quantity of Component 4 Water that DWR will purchase from Yuba.

7. On or about May 20 of each Water Accounting Year, or as soon thereafter as practicable, the AGENCY and DWR will agree upon a final monthly schedule for delivery of Component 1 Water if not used by the EWA as provided in Section 3.B.1.a, Component 2 Water, Component 3 Water, and Component 4 Water that has been allocated to the Agency. The final schedule will be updated to accommodate any changes that affect the delivery of water as provided in Section 9 ("Scheduling of Water") of the Yuba Water Purchase Agreement. The final monthly schedule will include, pursuant to Section 3.A above, the quantity of each component of Purchased Water the AGENCY will purchase and that the AGENCY requests be delivered each month of the Water Accounting Year.
8. The final monthly schedule may be modified by mutual agreement. The AGENCY will submit copies of any proposed modifications to the final monthly schedule to DWR's State Water Project Analysis Office (SWPAO) Chief of Water Supply and Transfers Branch, and Chief of Water Deliveries Section, both at FAX number (916) 653-9628. SWPAO will coordinate with the DWR Operations Control Office in determining whether the proposed modifications to the final monthly schedule can be accommodated by DWR.
9. After DWR approves the final monthly schedule, during any week when DWR is conveying water for the AGENCY, the AGENCY will submit weekly schedules to the DWR Operations Control Office: one to the Chief, Pre-Scheduling Section, FAX (916) 574-2782, and one to the Chief, Operations

Scheduling Section, FAX (916) 574-2785. The weekly schedules will be consistent with the final monthly schedule.

10. The scheduling of Purchased Water, and any adjustments to the schedule, will be in accordance with the Exhibit 1 ("Scheduling and Accounting Principles") of the Yuba Water Purchase Agreement.

11. DWR's approval of the schedule will be subject to Section 4.B, below.

B. Conveyance

The conveyance of water under this Agreement to the AGENCY's delivery structures from the SWP facilities is subject to the terms and conditions of this Agreement, Article 55 of the AGENCY's Water Supply Contract, and applicable laws. Use of Purchased Water under this Agreement shall be restricted to the service area of the SWP. Delivery priorities shall be determined in accordance with Article 12(f) of the AGENCY's SWP Long-Term Water Supply Contract, with Purchased Water being classified as non-project water.

5. INVOICING AND PAYMENTS

DWR will invoice the AGENCY and the AGENCY will submit payment to DWR based on each invoice as provided below.

A. INVOICING AND PAYMENT OF PURCHASED WATER

1. On or after June 10 (or within 9 days of the date that DWR receives an invoice from Yuba), DWR will invoice the AGENCY for fifty percent of the payment for the estimated amount of water that the AGENCY scheduled as

Purchased Water for that calendar year minus fifty percent of any credits due to the AGENCY as provided in Section 5.C below.

2. On January 17 of the next calendar year (or within 9 days of the date that DWR receives an invoice from Yuba), DWR will invoice the AGENCY for the remaining unpaid cost for Purchased Water, including Purchased Water available pursuant to Section 3.B.6, above, purchased by the AGENCY minus the remaining credits due to the AGENCY as provided in Section 6.C below.
3. Invoices will itemize any prior payments and credits, the total due, less any additional credits.

B. INVOICE FOR CONVEYANCE, DELIVERY, ADMINISTRATIVE COSTS

1. DWR will invoice the AGENCY monthly for conveyance charges in accordance with Article 55 of the SWP Long-Term Water Supply contract. Specifically, the AGENCY shall pay the power resources (including on-aqueduct, off-aqueduct, and any other power) incurred in the conveyance of such water from the Delta for the year in which the Purchased Water is conveyed.
2. Upon execution, DWR will invoice the AGENCY a one-time administrative fee of $3,000 for preparation of this Agreement.

C. PAYMENT FOR FIXED ANNUAL COSTS AND CREDIT AGAINST PURCHASED WATER.

1. On or before February 11, or within 10 days of DWR's receipt of Yuba's invoice, each year DWR will invoice the AGENCY its share of Yuba's fixed annual costs as provided in Section 12.B of the Yuba Water Purchase Agreement. The AGENCY's payment of these fixed annual costs will be its share of up to $125,000 prorated among the Participating SWP Contractors calculated in the manner as provided in Section 3.A of this Agreement.
2. As provided in Section 5.A above, for all payments made by the AGENCY under this Subsection, DWR will provide to the AGENCY a credit against future payments due to DWR for Purchased Water, excluding Component 1 Water. If necessary, DWR will record and accrue these credits from year to year until DWR makes Purchased Water, excluding Component 1 Water, available to the AGENCY, at which time such credits will be applied toward payments due.

D. PAYMENTS FOR YUBA DIESEL CONVERSION OF GROUNDWATER PUMPS.

Within 30 days of DWR's receipt of a reviewed and verified invoice from Yuba of its conversion of pumps from diesel as provided under Section 12.A of the Yuba Water Purchase Agreement, DWR will invoice the AGENCY for up to one-half of the amount of the Yuba invoice. The AGENCY's share of Yuba's total costs for diesel conversion will not be more than its share of $500,000 prorated among the Participating SWP Contractors calculated in the manner as provided in Section 3.A of this Agreement.

E. PAYMENTS FOR ADJUSTMENTS TO GROUNDWATER O&M COSTS.

In accordance with the timing of invoices required by Section 5.A above, DWR will invoice the AGENCY for its share of Yuba's costs for any annual increases above actual 2006 Groundwater O&M Costs, as provided in Section 12.C of the Yuba Water Purchase Agreement. The AGENCY's share of Yuba's costs will be based upon the proportion of the total amount of Purchased Water delivered to the AGENCY to the total amount of water delivered to the Participating SWP Contractors and the Authority in the year that the invoice covers. If no Purchased Water is delivered in the year that the invoice covers, the Participating SWP Contractors and the Authority shall share equally the costs invoiced by Yuba to DWR and AGENCY will pay its share, which share shall be calculated in the manner as provided in Section 3.A of this Agreement.

F. PAYMENTS FOR COSTS ATTRIBUTABLE TO YUBA WATER PURCHASE AGREEMENT

The Parties agree that costs that DWR is obligated to pay to Yuba pursuant to the Yuba Water Purchase Agreement as attached hereto and that have not been identified by this Agreement, will be an obligation of the Participating SWP Contractors and the Authority. If necessary, the Parties will amend this Agreement to provide for invoicing and payment of such costs if not provided for herein.

G. TIMING OF PAYMENTS.

1. The AGENCY will pay DWR within 32 days after the AGENCY's receipt of an invoice from DWR.
2. Payment made after 32 days of receipt of invoice will be considered delinquent and interest will accrue at a rate of one percent per month for all delinquencies from the due date until paid.
3. If the AGENCY disputes a cost on an invoice, the AGENCY will make payment based on the invoice received, but will submit a notice to DWR identifying the disputed cost within 60 days of receipt of the invoice. Within 21 days after DWR receives notice of the disputed cost, the Parties will meet and confer, and if appropriate, obtain assistance from the Technical Committee and Management Committee to resolve the error or discrepancy. If the Parties resolve the dispute in a manner that recognizes a payment by the AGENCY that exceeds what is required under this Agreement, the amount of the excessive payment will be reflected by DWR pursuant to Section 6.A as a credit against future payments due from the AGENCY. DWR will reflect the credit on the next subsequent invoice it provides to the AGENCY. If the Parties cannot resolve the dispute, they will follow the dispute resolution process described in Section 10 below.

6. EFFORTS TO MAXIMIZE THE BENEFICIAL USE OF WATER

DWR will use all reasonable efforts to maximize the amount of Purchased Water available to the Participating SWP Contractors, including the AGENCY, and the

Authority. Those efforts will include, but are not limited to fully exercising its rights and obligations under the Yuba Water Purchase Agreement, coordinating with Reclamation on the operations of the SWP and CVP, and storing water in SWP facilities when Delta pumping is constrained, as provided in Section 4.3 of Exhibit 1 to the Yuba Water Purchase Agreement.

7. MEMBERSHIP ON COMMITTEES

DWR agrees that a representative of the Participating SWP Contractors will be a member of the Management Committee and Technical Committee.

8. CONFERENCE YEAR PRINCIPLES

During any Conference Year, the Parties will meet with Yuba and the other parties to the Fisheries Agreement and the Conjunctive Use Agreements to: (1) determine how to address the circumstances, and (2) discuss the operation of the Yuba Project during that Water Accounting Year. During a Conference Year, if Yuba reduces or does not deliver any Component 2, 3, or 4 Water, the AGENCY's and the Participating SWP Contractors' obligation to schedule or purchase any quantity of Purchased Water will be reduced or eliminated accordingly.

9. LIABILITY

A. DWR will not assert that the AGENCY, its directors, officers, agents or employees, are liable for damages of any nature whatsoever arising out of any

actions or omissions by DWR, its Director, officers, agents or employees, related to DWR's performance of this Agreement, where such liability is caused by an act, error or omission of DWR, its Director, officers, agents or employees.

B. The AGENCY will not assert that DWR, its Director, officers, agents or employees, are liable for damages of any nature whatsoever arising out of any actions or omissions by the AGENCY, its directors, officers, agents or employees, related to the AGENCY's performance of this Agreement, where such liability is caused by an act, error or omission of the AGENCY, its director, officers, agents or employees.

C. To the extent permitted by California law, the AGENCY will indemnify, defend and hold DWR, its Director, officers, agents and its employees safe and harmless from any and all, claims, judgments, damages, penalties, costs, liabilities and losses (including without limitation, sums paid in settlement of claims, actual attorney's fees paralegal fees, consultant fees, engineering fees, expert fees, and any other professional fees) that arise from or are related in any way to the AGENCY's activities or performance under this Agreement that are under the exclusive control of the AGENCY, including but not limited to the release, conveyance, use or distribution of water by the AGENCY for purposes of this Agreement.

D. To the extent permitted by California law, DWR will indemnify, defend and hold the AGENCY, its directors, officers, agents and its employees safe and harmless from any and all, claims, judgments, damages, penalties, costs,

liabilities and losses (including without limitation, sums paid in settlement of claims, actual attorney's fees, paralegal fees, consultant fees, engineering fees, expert fees, and any other professional fees) that arise from or are related in any way to DWR's activities or performance under this Agreement that are under the exclusive control of DWR, including but not limited to the release, conveyance, use or distribution of water by DWR for purposes of this Agreement.

10. DISPUTE RESOLUTION

A. Should any material disputes arise concerning any provision of this Agreement, or the rights and obligations of the Parties hereunder, including those involving possible termination or those that might cause the initiation of any administrative or judicial proceeding to enforce or interpret this Agreement, the Party that believes a dispute exists will notify the other Party, and the Parties will promptly meet and confer to attempt to resolve the perceived dispute.

B. If the Process described in the preceding subsection fails to resolve the dispute within thirty days, the Parties will submit the dispute to a mediator who has experience in water-related disputes. The costs of any such mediation will be borne equally by the Parties. Initiation of this mediation process will be through written notice by one Party to the other Party. The Parties reserve all of their other remedies that may be provided by law or equity in the event that such mediation fails to resolve a dispute. The Parties, in consultation with the

mediator, will use their best efforts to resolve the dispute within thirty days. Under no circumstances, however, will mediation under this Section result in a requirement that diminishes, limits or contravenes the discretion, authority or any delegated authority of the Director of DWR or the AGENCY under State law.

C. If mediation fails to resolve the dispute, and prior to commencing any legal action to resolve the dispute, the Party proposing to commence legal action will provide the other Party thirty days' written notice of such action, provided that such notice will not be required where a delay in commencing an action would prejudice the interests of the Party that intends to file suit. During the thirty-day notice period, the Parties will continue to attempt to resolve the dispute.

11. NOT A PRECEDENT

The terms and conditions set forth in this Agreement are not intended to set a precedent for any future contractual arrangements for conveying non-SWP water by DWR to the AGENCY.

12. PAYMENTS, NOTICES OR OTHER COMMUNICATIONS

The time for providing any payments, notices, or other communications specified in this Agreement may be extended within the term of this Agreement with the consent of the Parties, confirmed in writing, without requiring an amendment to this Agreement. All payments, notices, or other communications required under this

Agreement will be in writing, and will be deemed to have been duly given upon the date of service, if: (a) served personally on the Party to whom notice is to be given; (b) sent by electronic mail, and the Party to whom notice is to be given confirms receipt; or (c) on the third day after mailing, if mailed to the Party to whom payment, notice or other communication is directed, by first-class mail, postage prepaid, and properly addressed to the designated representative(s) of the Party set forth below.

DWR: Mr. Carl A. Torgersen
Chief of State Water Project Operations Office
Department of Water Resources
3310 El Camino Avenue
Post Office Box 219000
Sacramento, California 95821-9000,

And

Mr. Robert Cooke
Chief of State Water Project Analysis Office
Department of Water Resources
1416 Ninth Street, Room 1620
Post Office Box 942836
Sacramento, California 94236-0001

AGENCY:
Mr. Kirby Brill, General Manager
Mojave Water Agency
13846 Conference Center Drive
Apple Valley, California 92307-4377
(760) 946-7000

A Party may notify the other Party in writing of a change in its designated representatives, without requiring an amendment to this Agreement. Unless other timing is specified within this Agreement, DWR will provide to the AGENCY copies of any and all payments, notices or other communications it sends or receives

pursuant to the terms of the Yuba Water Purchase Agreement as soon as possible, but no later than 14 days after DWR receives, or sends, such payments, notices or other communications to Yuba and/or the Authority and/or other Participating SWP Contractors.

13. SIGNATORIES' AUTHORITY

The signatories to this Agreement represent that they have authority to execute this Agreement and to bind the Party on whose behalf they execute this Agreement.

14. COUNTERPARTS OF THIS AGREEMENT

This Agreement may be signed in any number of counterparts by the Parties, each of which will be deemed to be an original, and all of which together will be deemed to one and the same instrument. This Agreement, if executed in counterparts, will be valid and binding on a Party as if fully executed all in one copy.

15. BINDING ON SUCCESSORS/ASSIGNMENT

This Agreement will bind and inure to the benefit of the respective successors and assigns of the Party, except that, none of the obligations of the Parties set forth in this Agreement will be assigned without the prior, written approval of the other Party, which approval will not unreasonably be withheld.

16. NO THIRD-PARTY BENEFICIARIES

This Agreement will not be construed to create any third-party beneficiaries, except as set forth in this section. This Agreement is for the sole benefit of the Parties, their respective successors and assigns, and no other person or entity will be entitled to rely on or receive any benefit from this Agreement or any of its terms.

17. AMENDMENTS

A. This Agreement may be amended or modified only by written agreement approved and executed by the Parties.

B. Prior to any amendment of this Agreement, the Parties will meet and confer with the other Participating SWP Contractors and the Authority. The Parties will not agree to any amendment to this Agreement that would adversely affect the rights and obligations of the Participating SWP Contractors under each of their respective **"**Agreement for the Supply and Conveyance of Water by the Department of Water Resources of the State of California to the Participating SWP Contractors under the Dry Year Water Purchase Program" or the Authority under its "Agreement for the Supply and Conveyance of Water by the Department of Water Resources of the State of California to the San Luis & Delta-Mendota Water Authority under the Dry Year Water Purchase Program."

C. Prior to any amendment of any **"**Agreement for the Supply and Conveyance of Water by the Department of Water Resources of the State of California to the Participating SWP Contractors Under the Dry Year Water Purchase Program",

DWR will meet and confer with the AGENCY. DWR will not agree to any amendments to any **"**Agreement for the Supply and Conveyance of Water by the Department of Water Resources of the State of California to the Participating SWP Contractors Under the Dry Year Water Purchase Program" or the "Agreement for the Supply and Conveyance of Water by the Department of Water Resources of the State of California to the San Luis & Delta-Mendota Water Authority under the Dry Year Water Purchase Program" that would adversely affect the rights and obligations under this Agreement.

D. DWR will meet and confer with the AGENCY, the other Participating SWP Contractors and the Authority before agreeing to any proposed changes, amendments, or supplements to the Yuba Water Purchase Agreement. DWR will not agree to any changes, amendments, or supplements to the Yuba Water Purchase Agreement or its Exhibits that would be inconsistent with or adversely affect the Parties' rights and obligations under this Agreement, any other "Agreement for the Supply and Conveyance of Water By the Department of Water Resources of the State of California to the Participating SWP Contractors Under the Dry Year Water Purchase Program" or under the "Agreement for the Supply and Conveyance of Water by the Department of Water Resources of the State of California to the San Luis & Delta-Mendota Water Authority under the Dry Year Water Purchase Program."

18. OPINIONS AND DETERMINATIONS

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

19. REASONABLE COOPERATION

The Parties will reasonably cooperate with each other, including the execution of all necessary documents and providing assistance in obtaining approvals and permits from regulatory agencies required to perform the obligations under this Agreement and to carry out the purpose and intent of this Agreement.

20. CONSTRUCTION AND INTERPRETATION

This Agreement is entered into freely and voluntarily. This Agreement has been arrived at through negotiation, and each Party has had a full and fair opportunity to revise the terms of this Agreement. Consequently, the normal rule of construction that any ambiguities are to be resolved against the drafting party will not apply in construing or interpreting this Agreement.

21. COMPLETE CONTRACT

This Agreement constitutes the sole, final, complete, exclusive and integrated expression and statement of the terms of this Agreement among the Parties

concerning the subject matter, and supersedes all prior negotiations, representations or agreement, either oral or written, that may be related to the subject matter of this Agreement, except as to those other agreements that are expressly referred to in this Agreement.

22. **DETERMINATION OF UNENFORCEABLE PROVISIONS**

If any term or provision of this Agreement is deemed invalid or unenforceable by any court of final jurisdiction, the Parties will meet and attempt to address this situation pursuant to the provisions of Section 10 of this Agreement.

23. WAIVER

The waiver at any time by a Party of its rights with respect to a default or other matter arising in connection with this Agreement will not be deemed a waiver with respect to any other default or matter.

24. TIME

Time is of the essence in this Agreement. Any date specified in this Agreement may be changed with the written consent of the Parties.

25. APPLICABLE LAW

This Agreement will be construed under and will be deemed to be governed by the laws of the State of California.

26. VENUE

Any appropriate County under California law will be venue for any state court litigation concerning the enforcement or interpretation of this Agreement.

27. REMEDIES NOT EXCLUSIVE

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

28. OFFICIALS NOT TO BENEFIT

No member or delegate to Congress, Resident Commissioner, or Federal or State official will be admitted to any share or part of this Agreement or to any benefit that may arise therefrom.

29. STANDARD CLAUSES

With respect to the mutual obligations of the Parties under this Agreement, the Parties will comply with the Standard Clauses as shown on Exhibit B ("State of California Standard Clauses") to this Agreement for the State of California, Contracts with Public Entities.

30. EXHIBITS INCORPORATED

Each exhibit to which reference is made is deemed incorporated in this Agreement, whether or not actually attached.

IN WITNESS WHEREOF, the Parties hereto, by their authorized representatives, have executed this Agreement on the last date set forth below.

Approved as to legal form and sufficiency:	STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES
_____ Chief Counsel	_____ Mark Cowin, Director
_____ Date	_____ Date
Approved as to legal form and sufficiency:	Mojave Water Agency
_____ General Counsel	_____ General Manager
_____ Date	_____ Date

Attachments:

Exhibit A: Agreement for the Long-Term Purchase of Water from Yuba County Water Agency by the Department of Water Resources (December 4, 2007)

Exhibit B: DWR Standard Clauses

EXHIBIT A

AGREEMENT FOR THE LONG-TERM PURCHASE OF WATER FROM YUBA COUNTY WATER AGENCY BY THE DEPARTMENT OF WATER RESOURCES

EXHIBIT B

DEPARTMENT OF WATER RESOURCES STANDARD CLAUSES
FOR
AGREEMENT FOR THE SUPPLY AND CONVEYANCE OF WATER
BY THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF CALIFORNIA
TO THE AGENCY
UNDER
THE DRY YEAR WATER PURCHASE PROGRAM

Worker's Compensation Clause. Contractor affirms that it is aware of the provisions of Section 3700 of the California Labor Code which require every employee to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor affirms that it will comply with such provisions before commencing the performance of work under this Agreement.

Nondiscrimination Clause. During the performance of this Agreement, Contractor and its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40*),* marital status, and denial of family care leave. Contractor and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Contractor and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (a-f) et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

Compliance with Laws, Regulations, Permit Requirements. Contractor shall at all times comply with, and require its contractors and subcontractors to comply with, all applicable federal and State laws, rules and regulations, permits and all applicable local ordinances, specifically including but not limited to environmental, procurement and safety laws, rules, regulations, permits and ordinances.

Availability of Funds. Work to be performed under this contract is subject to the availability of funds through the State's normal budget process.

Audit Clause. For contracts in excess of $10,000, the contracting parties shall be subject to the examination and audit of the State Auditor for a period of three years after the final payment under the contract (Government Code Section 8546.7).

Payment Retention Clause. Ten percent of any progress payments that may be provided under this contract shall be withheld per Public Contract Code Sections 10346 and 10379 pending satisfactory completion of all services under the contract.

Reimbursement Clause. If applicable, travel and per diem expenses to be reimbursed under this contract shall be at the same rates the State provides for unrepresented employees in accordance with the provisions of Title 2, Chapter 3, of the California Code of Regulations. Contractor's designated headquarters for the purpose of computing such expenses shall be: The address of the AGENCY as shown in Section 12 of this Agreement.

Drug-Free Workplace Certification. By signing this contract, the Contractor or grantee hereby certifies under penalty of perjury under the laws of the State of California that the Contractor or grantee will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.

2. Establish a Drug-Free Awareness Program to inform employees about all of the following:

   a) The dangers of drug abuse in the workplace,

b) The person's or organization's policy of maintaining a drug-free workplace,

c) Any available counseling, rehabilitation, and employee assistance programs; and

d) Penalties that may be imposed upon employees for drug abuse violations.

3. Every employee who works on the proposed contract or grant:

   a) Will receive a copy of the company's drug-free policy statement, and

   b) Will agree to abide by the terms of the company's statement as a condition of employment on the contract or grant.

This contract or grant may be subject to suspension of payments or termination, or both, and the contractor or grantee may be subject to debarment if the Department determines that: 1) the Contractor or grantee has made a false certification, or 2) the Contractor or grantee violates the certification by failing to carry out the requirements noted above.

Americans with Disabilities Act. By signing this contract, Contractor assures the State that it complies with the Americans With Disabilities Act (ADA) of 1990, 942 U.S.C.12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

Conflict of Interest. Current State Employees: a) No officer or employee shall engage in any employment activity or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any State agency, unless the employment, activity or enterprise is required as a condition of regular State employment. b) No State officer or employee shall contract on his or her own behalf as an independent contractor with any State agency to provide goods or services.

Former State Employees: a) For the two year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. b) For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.

Child Support Compliance Act. For any agreement in excess of $100,000, the Contractor acknowledges in accordance herewith, that:

1. The Contractor recognizes the importance of child and family support obligations and shall full comply with all applicable State and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earning assignment orders, as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the Family Code; and

2. The Contractor, to the best of its knowledge, is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the Employment Development Department.

Air or Water Pollution Violation. Under the State laws, the Contractor shall not be: 1) in violation of any order or resolution not subject to review promulgated by the State Air Resources Board or an air pollution control district; 2) subject to cease and desist order not subject to review issued pursuant to Section 13301 of the Water Code for violation of waste discharge requirements or discharge prohibitions; or 3) finally determined to be in violation of federal law relating to air or water pollution.

Union Organizing. For all contracts, except fixed price contracts of $50,000 or less, the Contractor acknowledges that: by signing this Agreement the Contractor hereby acknowledges the applicability of Government Code Section 16645 through Section 16649 to this Agreement and agrees to the following:

1. Contractor will not assist, promote or deter union organizing by employees performing work on a State service contract, including a public works contract.

2. No State funds received under this Agreement will be used to assist, promote or deter union organizing.

3. Contractor will not, for any business conducted under this Agreement, use any State property to hold meetings with employees or supervisors, if the purpose of such meetings is to assist, promote or deter union organizing,

unless the State property is equally available to the general public for holding meetings.

4. If Contractor incurs costs or makes expenditures to assist, promote or deter union or organizing, Contractor will maintain records sufficient to show that no reimbursement from State funds has been sought for these costs, and that the Contractor shall provide those records to the Attorney General upon request.

Recycling Certification. Contractor shall certify in writing under penalty of perjury, the maximum, if not exact, percentage of recycled content, both post consumer water and secondary waste as defined in Public Contract Code, Section 12161 and 12200, in materials, goods, or supplies offered or products used in the performance of this Agreement, regardless of whether the product meets the required recycled product percentage as defined in Public Contract Code, Sections 12161 and 12200. Contractor may certify that the product contains zero content. (PCC 10233, 10308.5, 10354)

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

AMENDMENT NO. 1 TO THE AGREEMENT FOR THE SUPPLY AND CONVEYANCE OF WATER BY THE DEPARTMENT OF WATER RESOURCES OF THE STATE OF CALIFORNIA TO THE PARTICIPATING STATE WATER PROJECT CONTRACTORS UNDER THE DRY YEAR WATER PURCHASE PROGRAM SWPAO NO. 09-827

THIS AMENDMENT NO. 1 ("Amendment") to the _____, 2014 "Agreement for the Supply and Conveyance of Water by the Department of Water Resources of the State of California to the Participating State Water Project Contractors under the Dry Year Water Purchase Program" ("Agreement") is entered into as of the _____day of _____, 2014, pursuant to the provisions of the California Water Resources Development Bond Act, the State Central Valley Project Act, and other applicable laws of the State of California, between the Department of Water Resources of the State of California, herein referred to as "DWR," and the Mojave Water Agency, a public agency in the State of California, herein referred to as the "AGENCY." DWR and the AGENCY are herein referred to separately as the "Party" and collectively as the "Parties."

The Parties hereby amend the Agreement as follows:

1. Item no. 9 (at page 55) Section 1 ("General Principles") of Exhibit 2 ("Reservoir Refill Accounting Provisions") of Exhibit A ("Long-Term Purchase of water from Yuba County Water Agency by the Department of water Resources") is revised to read as follows:

"If the Transfer Amount Account is not zero on September 30, then the remaining balance of the account will be carried forward to the subsequent water year and the impact accounting will continue until the outstanding balance is eliminated. Exception: If the difference in storage between the Actual Storage and the maximum baseline storage, on September 30th is less than the remaining balance of the previous year plus the Base Transfer (see item 1 above), then the transfer amount account will be reset to the difference between actual storage and the maximum baseline storage amount."

2. All remaining provisions of the Agreement will remain in full force and effect.

The foregoing is hereby agreed to by the Parties.

IN WITNESS WHEREOF, the Parties hereto, by their authorized representatives, have executed this Agreement on the last date set forth below.

Approved as to legal form and sufficiency:	STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES
_____ Cathy Crothers, Chief Counsel	_____ Mark W. Cowin, Director
_____ Date	_____ Date
Approved as to legal form And sufficiency:	Mojave Water Agency
_____	_____ Mr. Kirby Brill, General Manager
_____ Date	_____ Date

Exhibit for Notice to Contractors

Memo Justifying Proposed Change in Exhibit 2 “Reservoir Refill Accounting Provisions”

MEMO

DATE: October 20, 2008

FROM: Technical Committee - Lower Yuba River Accord Water Purchase Agreement

TO: Management Committee - Lower Yuba River Accord Water Purchase Agreement

RE: Proposed Change in Exhibit 2 "Reservoir Refill Accounting Provisions"

The 2008 water transfer is the first year of the long term water transfer between Yuba County Water Agency (YCWA) and the Department of Water Resources (DWR). In 2007 YCWA and DWR completed a transfer to the Environmental Water Account (EWA) under a pilot program. The 2007 transfer resulted in the delivery of 125 TAF of stored water from New Bullards Bar Reservoir to DWR. According to the long term transfer water purchase agreement (Agreement), the storage space in New Bullards Bar Reservoir evacuated as a result of the release of transfer water must be refilled at a time of excess Delta conditions, or an impact is accounted for and the impact volume must be repaid through the release of additional transfer water at a later date. Exhibit 2 of the Agreement contains the accounting steps for determining if a refill impact has occurred. Exhibit 1 of the Agreement contains the procedures for determining the daily transfer flows. According to the refill accounting procedures of Exhibit 2, none of the 125TAF of transfer water from 2007 was refilled in the winter of 2008. As described in more detail below, the accounting of water releases under Exhibit 1 showed that some of the 2007 transfer had actually been refilled. The Technical Committee believes that an additional accounting step is required in Exhibit 2. If Exhibit 2 refill accounting were to remain without the proposed changes of this memo, the accounting in Exhibit 2 would differ from the accounting in Exhibit 1 as of October 1, 2008.

The accounting in Exhibit 1 is accomplished by tracking two sets of daily flows and storage amounts; 1) the actual flows in the Yuba River and storage of New Bullards Bar Reservoir and 2) a determination of the daily flows and resulting storage that would have occurred absent the Agreement and the Lower Yuba River Accord Fisheries Agreement (the Baseline). The primary purpose of Exhibit 1 is to account for the amount of transfer water that is delivered to DWR from the Yuba River. This is accomplished by tracking the actual daily flows and comparing them with computed Baseline daily flows. Since this process must be continuous, it also provides an accounting of the Baseline New Bullards Bar storage and the resulting reduction in flows in the Yuba River due to refilling New Bullards Bar storage in the winter. The determination of transfer flows is tracked through a number of accounting controls to assure DWR that increased releases for transfer are actually occurring. However, in the wintertime, in moderate weather years the ability to determine the exact volume of release that would have occurred under the Baseline is less precise, since this is typically not a transfer time period, and the

ability of DWR to verify these flows is limited, and to a degree affected by YCWA wintertime power production/hydrology risk real-time operations determination. This lack of precision and verification of wintertime operations is the reason Exhibit 2 is in place.

The procedures of Exhibit 2 determine the volume of impact to the Projects due to refill (refill impact) by setting a Target Storage Line that is a "maximum storage operation". If Baseline storage in New Bullards Bar Reservoir, calculated by adding actual storage and unrefilled transfer amount, is above the Target Line, the unrefilled transfer amount is reduced by the volume above the Target Line. And, if the Delta is in balanced conditions, a refill impact of that volume is determined. This system works well as a verifiable method for determining a refill impact for a single year transfer. However, since the reduction of unrefilled transfer volume is only taken when baseline storage is at the Target Line, which is a maximum storage operation, no reduction in the unrefilled transfer volume occurs when New Bullards Bar reservoir is refilling, but baseline storage is below the Target Line. This occurred in the winter of 2008 and is expected to occur in years that are moderately dry. The procedures of Exhibit 2 are to a degree affected by YCWA wintertime power production/hydrology risk real-time operations determination.

As previously stated, Exhibit 1 accounting is computed on a daily basis throughout the year, including a determination of Baseline storage and releases from New Bullards Bar Reservoir. By extension, Exhibit 1 also includes refill of the New Bullards Bar storage, and the effect of that refill on Yuba River flows. The method for refill tracking in Exhibit 2 is different from the method in Exhibit 1, and in dryer year conditions, such as the conditions seen in 2008, results in a difference in the amount of transfer water yet to be refilled between the two accounting methods. The difference results because Exhibit 2 does not have a procedure for adjusting the unfilled amount from a previous year's transfer when the previous year is moderately dry. The Technical Committee has developed a straightforward change to the accounting procedures in Exhibit 2 that would adjust the previous years' remaining refill volume of moderately dry years to be used in the determination of refill impacts.

The Technical Committee has recognized a need to adjust the accounting procedures and had discussed it during several operations-coordination conference calls during the spring and early summer. A meeting at the Joint Operations Center (JOC) was held on June 15th 2008 to review the issue in detail and to come to agreement on a solution. The meeting attendees were John Lehigh and Andy Chu from DWR, Jeff Sandberg from USBR and Steve Grinnell and Jeff Weaver for YCWA. Following a detailed discussion of the issues and possible measures to be added to the accounting, it became clear that the best method was to include a "reset" of the previous years' transfer amount in Exhibit 2. The proposed solution is to modify Exhibit 2 by adding a limit on the amount of previous year transfer volume at the start of the refill period, October 1, to the lesser of; 1) the unrefilled transfer volume from the previous year plus the current year transfer as currently described in Exhibit 2, or 2) the difference in storage between actual storage and baseline storage on September 30.

The proposed change to Exhibit 2 is to change item 9 on page 55 from;

"9) If the Transfer Amount Account is not zero on September 30, then the remaining balance of the account will be carried forward to the subsequent water year and the impact accounting will continue until the outstanding balance is eliminated."

to;

"9) If the Transfer Amount Account is not zero on September 30, then the remaining balance of the account will be carried forward to the subsequent water year and the impact accounting will continue until the outstanding balance is eliminated. *Exception: If the difference in storage between the Actual Storage and the maximum baseline storage, on September 30th is less than the remaining balance of the previous year plus the Base Transfer (see item 1 above), then the transfer amount account will be reset to the difference between actual storage and the maximum baseline storage amount.*

The practical result of this adjustment is that refill accounting under the Agreement will continue to have the static, verifiable refill accounting of Exhibit 2, while recognizing that the accounting of Exhibit 1 is more precise in determining day to day differences in flows and storage between the accounting Baseline and actual flows and storage during moderate conditions for the purpose of accounting the amount of transfer water.

The technical committee, in examining this issue has also recognized that this addition to Exhibit 2 may not cover all circumstances that might arise due to the complexity of YCWA operations and the complexity of the accounting. It was unanimously agreed that although this solution will address the previous year's unrefilled amount in the Exhibit 2 refill accounting, further adjustments might be needed in the future to address unique and rare circumstances.

The Technical Committee requests that the Management Committee review the proposed change and incorporate it into Exhibit 2 of the Water Purchase Agreement.

STATE OF CALIFORNIA

THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

AMENDMENT 5 TO THE AGREEMENT FOR THE SUPPLY AND CONVEYANCE OF WATER BY THE DEPARTMENT OF WATER RESOURCES OF THE STATE OF CALIFORNIA TO THE PARTICIPATING STATE WATER PROJECT CONTRACTORS UNDER THE DRY YEAR WATER PURCHASE PROGRAM SWPAO NO. 14-827

THIS AMENDMENT 5 (Amendment) to the _____, 2014 "Agreement for the Supply and Conveyance of Water by the Department of Water Resources of the State of California Under the Dry Year Water Purchase Program" (Participation Agreement, or Agreement) is entered into as of the _____ day of _____ , 2014 pursuant to the provisions of the California Water Resources Development Bond Act, the State Central Valley Project Act, and other applicable laws of the State of California, between the Department of Water Resources of the State of California, herein referred to as "DWR," and the Mojave Water Agency, a public agency in the State of California, herein referred to as the "AGENCY." DWR and the AGENCY are herein referred to separately as the "Party" and collectively as the "Parties." Unless otherwise provided in this Amendment, the definitions in the Agreement, the Yuba Water Purchase Agreement, and the exhibits to that agreement shall apply to this Amendment.

RECITALS

A. Under the December 4, 2007 "Agreement for the Long-Term Purchase of Water from Yuba County Water Agency by the Department of Water Resources" (Yuba Water Purchase Agreement), Yuba County Water Agency (Yuba) makes surface water available for delivery and purchase by DWR, some of which is made available through substitution of groundwater for surface flows that would otherwise be used by a number of water districts within Yuba County (Member Units).

B. In 2007 and 2008, 21 State Water Project (SWP) Contractors and the San Luis & Delta-Mendota Water Authority ("AUTHORITY") entered into agreements with DWR for the purchase and delivery of the water made available under the Yuba Water Purchase Agreement (cumulatively referred to as the Participation Agreements). The Participating SWP Contractors and the AUTHORITY are jointly referred to as "Participating Contractors".

C. In 2009, the parties to the Yuba Water Purchase Agreement executed the first amendment to the Yuba Water Purchase Agreement to address a technical reservoir refill accounting provision in Section 1 of Exhibit 2. DWR and the Participating Contractors executed conforming amendments (Amendment Number 1) to each of the Participation Agreements. This amendment is still in effect.

D. In 2009 and 2010, the parties to the Yuba Water Purchase Agreement executed the second and third amendments to the Yuba Water Purchase Agreement to make groundwater substitution water available to DWR for purchase as Component 4 Water at mutually agreed upon pricing. DWR and the Participating Contractors executed conforming amendments to each of the Participation Agreements. Both the second and third amendments have since expired.

E. On January 6, 2012, the parties to the Yuba Water Purchase Agreement executed the fourth amendment to the Yuba Water Purchase Agreement providing for annual pricing negotiations for surface flows made available from groundwater substitution. DWR and the Participating Contractors executed conforming amendments (Amendment Number 4) to each of the Participation Agreements. Amendment 4 expires on December 31, 2015.

F. The term of the Yuba Water Purchase Agreement is through December 31, 2025, or when all obligations thereunder have been satisfied, whichever is later, unless it is terminated earlier.

G. Under Section 15 of the Yuba Water Purchase Agreement, a new amendment is needed to establish prices for water made available after September 30, 2015.

H. In accordance with Section 15 of the Yuba Water Purchase Agreement, DWR and Yuba, in coordination with representatives of the Participating Contractors, have negotiated a new pricing agreement that will be incorporated into the Yuba Water Purchase Agreement by the fifth amendment to that agreement. The fifth amendment reflects changes in market conditions since the initial pricing schedule was proposed in 2004, as well as amending other provisions of that agreement.

I. In light of the new pricing agreement reflected in the fifth amendment to the Yuba Water Purchase Agreement, the parties to the Participation Agreements desire to amend their respective Participation Agreements to conform with changes made by that amendment. This fifth amendment to the Participation Agreement shall be referred to in this Amendment as "Amendment 5".

AMENDMENT 5 to the Participation Agreement

Now Therefore, the Parties hereby amend the Participation Agreement as follows:

1. SECTION 1 , "DEFINITIONS", is amended as follows:

(a) By adding at the end the following new definition:

""**Contributing Participating Contractor**" means any Participating Contractor that elects to contribute money towards the $20,000,000 deposit for purchases of Water from Yuba as described in Section 25 of the Yuba Water Purchase Agreement."

(b) By amending the definition of Participating SWP Contractors to read as follows:

""**Participating SWP Contractors**" means all SWP contractors that have executed a Participation Agreement, Amendment 1 conforming the Participation Agreement to the first amendment to the Yuba Water Purchase Agreement, and Amendment 5 conforming the Participation Agreement to the fifth amendment to the Yuba Water Purchase Agreement. However, a contractor that executes this Amendment 5 will not be considered a Participating SWP Contractor beyond December 31, 2020 if that contractor does not agree to amend its Participation Agreement prior to December 31, 2020."

(c) By amending the definition of Yuba Water Purchase Agreement by adding after "Exhibit A": ", and as amended".

2. EFFECTIVE DATE OF AMENDMENT

Amendment 5 to the Participation Agreement shall take effect when all of the following have occurred: (i) execution by the Parties; (ii) execution of the same or substantively similar amendments by DWR and all other Participating Contractors that elect to participate beyond December 31, 2015; and (iii) execution of the fifth amendment to the Yuba Water Purchase Agreement by DWR and Yuba.

3. SECTION 2, "TERM OF THE AGREEMENT", is amended by adding at the end the following new subparagraphs :

"B. Notwithstanding Subparagraph A, the Parties may terminate the Participation Agreement on December 31, 2020, if they fail to amend the Participation Agreement pursuant to Section 3.B.5 and as necessary to address amendments made to the Yuba Water Purchase Agreement regarding the quantity and pricing of Water to be made available by Yuba after September 30, 2020 pursuant to Section 15 of the Yuba Water Purchase Agreement.

C. Notwithstanding Subparagraphs A and B, the Agreement shall remain in effect beyond the termination dates set forth above to the extent required to enable the Parties to satisfy all payment and water delivery obligations then existing or outstanding at the time of termination."

4. CHANGES TO SECTION 3, "PURCHASED WATER"

a. Section 3.B.1.a, "COMPONENT 1 WATER", is amended to read as follows:

"a. For Component 1 Water that is accounted for as Purchased Water and made available to the AGENCY, the AGENCY will pay:

i. $50 per acre-foot in a Wet Year;
ii. $100 per acre-foot in an Above Normal Year;
iii. $150 per acre-foot in a Below Normal Year;
iv. $200 per acre-foot in a Dry Year, except as provided in subsection vi;
v. $300 per acre-foot in a Critical Year, except as provided in subsection vi;
vi. $350 per acre-foot in two or more consecutive Final Classification Dry Years (or a Dry Year following a Critical Year) or in two or more consecutive Final Classification Critical Years.
vii. Notwithstanding subsections i-vi, in any year in which Yuba's Third-Party Transfer of up to 10,000 acre-feet of Storage Component water under

Section 11 of the Yuba Water Purchase Agreement reduces the quantity of Component 2 Water available to the AGENCY, the price for Component 1 Water will reflect the reductions specified in Section 11.F.2 of such agreement."

b. Section 3.B.2, "COMPONENT 2 WATER", is amended to read as follows:

"For Component 2 Water that is accounted for as Purchased Water and made available to the AGENCY, the AGENCY will pay:

a. $160 per acre-foot in a Dry Year, except as provided in subsection c;
b. $200 per acre-foot in a Critical Year, except as provided in subsection c;
c. $280 per acre-foot in two or more consecutive Final Classification Dry Years (or a Dry Year following a Critical Year) or in two or more consecutive Final Classification Critical Years."

c. Section 3.B.3, "COMPONENT 3 WATER", is amended to read as follows:

"For Component 3 Water that is accounted for as Purchased Water and made available to the AGENCY, the AGENCY will pay:

a. $50 per acre-foot in a Wet Year;
b. $100 per acre-foot in an Above Normal Year;
c. $150 per acre-foot in a Below Normal Year;
d. $200 per acre-foot in a Dry Year, except as provided in subsection f;
e. $300 per acre-foot in a Critical Year, except as provided in subsection f;
f. $350 per acre-foot in two or more consecutive Final Classification Dry Years (or a Dry Year following a Critical Year) or in two or more consecutive Final Classification Critical Years."

d. Section 3.B.4, "COMPONENT 4 WATER", is amended to read as follows:

"a. Notwithstanding any other provision to the contrary of the Yuba Water Purchase Agreement, the following provisions shall apply to Groundwater Substitution Component water and Accrued Groundwater Substitution Component water made available by Yuba, through DWR, to the AGENCY beginning on January 1, 2016 and continuing through the term of this Agreement.

b. Component 4 water shall be comprised solely of Groundwater Substitution Component water. All Groundwater Substitution Component water shall be accounted for as Component 4 Water. Except as otherwise provided herein, Groundwater Substitution Component water and Accrued Groundwater Substitution Component water will be accounted for in accordance with the provisions of the Yuba Water Purchase Agreement.

c. In every year within the term of this Agreement when one or more Participating Contractor(s) desire to purchase Accrued Groundwater Substitution Component water from Yuba through DWR, the Management Committee representatives of DWR, Yuba, and the Participating Contractors will convene by February 15 and conclude by March 31 to negotiate the price per acre-foot of Accrued Groundwater Substitution Component water, any provisions for the Delta export priority for such water, and any other terms applicable to the Accrued Groundwater Substitution Component water.

d. In every Water Accounting Year when: (1) one or more Participating Contractor(s) desire to purchase Accrued Groundwater Substitution Component water; (2) the annual negotiations referenced in Section 3.B.4.c have reached a successful conclusion calling for the purchase of such water that year; (3) the Management Committee representatives for Yuba, the AUTHORITY, and the Participating SWP Contractors have agreed as to the terms of, and each of these representatives has recommended in writing said terms and the approval of, a letter agreement between Yuba and DWR establishing the price per acre-foot and any modified terms that will be applicable to the Accrued Groundwater Substitution Component water for that Water Accounting Year; and (4) DWR and Yuba have executed said letter agreement, DWR will offer in writing to the AGENCY the opportunity to purchase Accrued Groundwater Substitution Component water at the price and terms as provided in the letter agreement between DWR and Yuba."

5. CHANGES TO SECTION 4, "REQUESTS, SCHEDULING AND CONVEYANCE"

a. Section 4.A.1 is amended to read as follows:

"1. On or before April 1 of each year during the term of this Agreement DWR will notify the AGENCY of the quantity of Accrued Groundwater Substitution Component water that Yuba will make available during the Water Accounting Year and the terms of such water, including the price per acre-foot, and any other applicable terms. On or before April 11 of each Water Accounting Year, DWR will inform the AGENCY of the potential quantity of Component 1 Water, Component 2 Water, and Component 3 Water that is available to the AGENCY."

b. Section 4.A.2 is amended by striking "if not used by the EWA, as provided in Section 3.B.1a".

c. Section 4.A.3 is amended to read as follows:

"3. DWR and the AGENCY will, between April 11 and May 14, confer on the allocation of water under Section 3A. By April 13, the AGENCY will notify DWR of the quantity of Accrued Groundwater Substitution Component water it commits to purchase based on the price and terms for Groundwater Substitution Component water for that year. The AGENCY may adjust the quantity of water, up or down, on or before May 14, and on May 14 the AGENCY will commit to the final quantity of Accrued Groundwater Substitution Component water to be purchased during the Water Accounting Year, but such amount will not be less than the actual amount of Accrued Groundwater Substitution Component water made available between April 1 and May 15 for Groundwater Substitution Component water in accordance with the accounting provisions for Groundwater Substitution Component water set forth in Exhibit 1 of the Yuba Water Purchase Agreement. This provision is intended to be consistent with, and not modify, provisions of Section 4.A.5. If necessary, the dates herein may be adjusted if approved in writing by Yuba and DWR with written notice to the AGENCY to allow the Yuba Member Units to maximize the quantities of groundwater substitution pumping program water that could be made available during each year**.**"

d. Section 4.A.4 is amended to read as follows:

"4. No later than May 19, DWR will notify the AGENCY of the quantity of Component 1 Water, Component 2 Water, and Component 3 Water that has been allocated to the AGENCY and that the AGENCY will schedule pursuant to Section 4.A.7."

e. Section 4.A.5 is amended to read as follows:

"5. The AGENCY will provide DWR not less than 24 hours notification for suspension or termination of groundwater pumping due to limitations on the ability of the AGENCY to divert the Groundwater Substitution Component water. In the event of such a suspension or termination of Groundwater Substitution Component water, the AGENCY will pay for its allocated share of the quantity of Accrued Groundwater Substitution Component water, up to and including through a 72-hour period commencing after DWR notifies Yuba to suspend or terminate pumping related to the amount of Groundwater Substitution Component water requested by the AGENCY unless another Participating Contractor purchases that Accrued Groundwater Substitution Component water."

f. Section 4.A.6 is amended to read as follows:

"6. Pursuant to the negotiations described in Section 3.B.4.c in which a letter agreement has been executed as provided in Section 3.B.4.d, the AGENCY will comply with Delta conveyance priority, as determined by the Management Committee representatives as provided in Section 3.B.4.c, for any Groundwater Substitution Component water requested under the Agreement, relative to any other transfer water that DWR conveys at the Harvey O. Banks Pumping Plant for the AGENCY, provided that the Groundwater Substitution Component water will not have a higher priority than Storage Component water provided under the Agreement."

g. Section 4.A.7 is amended by striking "if not used by the EWA, as provided in Section 3.B.1.a".

h. Section 4.A. is further amended by adding at the end the following new paragraph 12:

"12. In the event that Yuba notifies DWR on or before September 1 to not back a specified quantity of Released Transfer Water into Project storage after September 30 of a Water Accounting Year, DWR will notify the AGENCY within five business days and provide an opportunity for the AGENCY to guarantee, no later than September 15, purchase of that portion of such water allocated to the AGENCY in accordance with Section 3.A at the current year pricing regardless of whether it becomes Delivered Transfer Water. Such water, when stored in Project storage, will be released in a subsequent year to the AGENCY provided it was stored in Project storage and not spilled by flood control releases before its scheduled release."

6. CHANGES TO SECTION 5, "INVOICING AND PAYMENTS"

a. Section 5.A.1 is amended to read as follows:

"A. Invoicing and Payment of Purchased Water

1. On or about May 22 (or within 9 days of the date that DWR receives an invoice from Yuba), DWR will invoice the AGENCY for fifty percent of the payment for the estimated amount of Storage Component water that the AGENCY scheduled as Purchased Water for that calendar year minus any credits due to the AGENCY as provided in Sections 5.C and 5.D. DWR will simultaneously invoice the AGENCY for 50 percent of the amount of Accrued Groundwater Substitution Component water that the AGENCY has committed to purchase under Section 4.A.3. Within 32 days of the date that

the AGENCY receives an invoice from DWR, the AGENCY will submit payment to DWR."

b. Section 5.A. is amended further by: redesignating Section 5.A.2 as 5.A.3, Section 5.A.3 as 5.A.4, and adding a new Section 5.A.2 as follows:

"2. a. The AGENCY will pay DWR the per acre foot price for the quantity of Accrued Groundwater Substitution Component water that the AGENCY has committed to purchase pursuant to Section 4.A.3, unless this amount is reduced pursuant to Sections 4.A.5 or 5.A.2.b or is reduced because the Yuba Member Units do not pump the requested quantity of groundwater substitution pumping program water for the Groundwater Substitution Component water.

b. The Parties acknowledge that Section 5.1.8 of the Yuba Accord Fisheries Agreement allows the River Management Team to schedule the release of a portion of Groundwater Substitution Component water at a time when it might not be transferable. The AGENCY will not be required to pay for the portion (if any) of Groundwater Substitution Component water that is scheduled for release in accordance with the provisions of Section 5.1.8 of the Yuba Accord Fisheries Agreement to the extent that this quantity of Groundwater Substitution Component water is not transferable under the accounting provisions set forth in Exhibit 1 of the Yuba Water Purchase Agreement.

c. On or about August 30 in each year that the AGENCY has agreed to purchase Accrued Groundwater Substitution Component water, DWR will submit an invoice to the AGENCY for 90 percent of the amount of Accrued Groundwater Substitution Component water the AGENCY has committed to purchase in Section 4.A.3 or that is otherwise payable under this Agreement during the current Water Accounting Year, less the amount of prior invoices for such Accrued Groundwater Substitution Component water during the current Water Accounting Year. Within 32 days of the date that the AGENCY receives an invoice from DWR, the AGENCY will submit payment to DWR.

d. Approximately 30 days after the end of the release of Accrued Groundwater Substitution Component water from New Bullards Bar Reservoir, after confirmation of the amount of Groundwater Substitution Component water released has been completed, after Yuba and DWR have reached agreement on the final accounting, and Yuba has provided to DWR a final invoice that is undisputed and as required under the Yuba Water Purchase Agreement, DWR will invoice the AGENCY for final payment for Accrued Groundwater Substitution Component water

provided under this Amendment. The AGENCY will submit payment to DWR within 32 days of invoicing by DWR.

e. The final payment for Accrued Groundwater Substitution Component water will reflect any adjustments necessary to account for the total quantity of Accrued Groundwater Substitution Component water payable under this Agreement and any adjustments due pursuant to Sections 4.A.5 or 5.A.2.b.

f. The Agreement provides for a Participating Contractor to pay interest on delinquent payments at the rate of 1 percent per month from the due date until paid in full. DWR will assess such interest on the AGENCY if payments to DWR for invoices pursuant to this Agreement are delinquent. The AGENCY agrees to pay such interest, and DWR will pay such interest collected along with the payments on invoices to Yuba."

c. Section 5.A is further amended by adding at the end the following new subsection 5.A.5:

"5. In the event that the AGENCY has guaranteed the purchase of Water allocated in accordance with Section 3.A that Yuba had notified DWR to not back into Project storage, DWR will invoice the AGENCY for the amount of Water the AGENCY has guaranteed in accordance with Section 4.A.12 to purchase at the current year pricing regardless of whether it becomes Delivered Transfer Water."

d. Section 5.C, PAYMENT OF FIXED ANNUAL COSTS AND CREDIT AGAINST PURCHASED WATER, is amended to read as follows:

"C. PAYMENTS AND CREDITS FOR TIME VALUE OF DEPOSIT FUNDS

1. The AGENCY shall make an annual payment to DWR for the purpose of compensating Contributing Participating Contractors for the time value of the money, computed as a compounded interest rate of 2.25 percent on the outstanding balance, that Contributing Participating Contractors contribute by about December 31, 2014 to comprise the $20,000,000 of deposit funds that serve to guarantee the five-year pricing reflected in the fifth amendment to the Yuba Water Purchase Agreement. On or about May 22 each year, DWR will invoice the AGENCY its share of the annual charge to pay the interest costs on the deposit funds provided by Contributing Participating Contractors providing deposit funds as provided in Section 5.E. The AGENCY's payment of these fixed annual costs will be its share of $175,000 prorated among the Participating SWP Contractors calculated in the manner as provided in Section 3.A. This payment may be offset with any applicable credits due the AGENCY under the Agreement. This annual

payment will be discontinued once the total interest charges have been paid to the Contributing Participating Contractors that fund the deposit after the $20,000,000 deposit has been fully credited to Storage Component water purchases by the Participating Contractors. This annual charge may be reduced in the final year(s) of payment to assure complete payment of the interest without overcharging the Participating Contractors.

2. All charges invoiced to the Participating Contractors for interest as provided in Section 5.C.1 shall be credited by DWR to Water purchases in the same Water Accounting Year by the Contributing Participating Contractors, in proportion to the amount of money each Contributing Participating Contractor contributed to the deposit described in Section 5.E. DWR will compute the actual amount of interest due to the AGENCY, if it is a Contributing Participating Contractor, based on the 2.25 percent interest rate and the deposit balances outstanding during the term of this Agreement. DWR shall credit or pay to AGENCY its proportionate share of the interest amount until the full amount of such interest due has been paid."

e. Section 5.E. PAYMENTS FOR ADJUSTMENTS TO GROUNDWATER O&M COSTS is amended to read as follows:

"E. PROVISION OF DEPOSIT FUNDS TO SECURE PRICING GUARANTEE

1. An AGENCY that has elected to be a Contributing Participating Contractor shall deposit money with DWR towards the $20,000,000 deposit for purchases of Water from Yuba.

   a. The AGENCY shall pay a deposit of $0 to DWR within 10 working days of executing Amendment 5 to the Agreement as its share of the $20,000,000 deposit towards all purchases of Storage Component water by all Participating Contractors beginning after September 30, 2015. DWR will remit these deposit funds to Yuba by December 31, 2014 as part of the $20,000,000 deposit as provided in the Yuba Water Purchase Agreement.

   b. As Yuba credits the deposit funds to Storage Component water purchases by all Participating Contractors, if the AGENCY is a Contributing Participating Contractor, DWR will, in turn, credit these deposit credits to all purchases of Water by the AGENCY beginning October 1, 2015 in proportion to the AGENCY's contribution to the deposit until the entire deposit has been credited and the AGENCY has received full credit for or repayment of its deposit amount during the term of the Agreement as provided herein. In the event that the AGENCY's purchases of Water in any Water Accounting Year are less than the credits available to the AGENCY under the Agreement, DWR

will pay such credit amounts to the AGENCY upon receipt of an invoice.

c. By June 10 each year and by January 17 of the following year, DWR will provide the AGENCY with an accounting of all purchases of Water by Participating Contractors setting forth the amount and cost of Storage Component and Groundwater Substitution Component water purchased by the AGENCY, charges for the AGENCY's proportional share of interest payments, credits for the AGENCY's share of interest on the deposit if any, credits for repayment of deposit funds to the AGENCY from purchases of Storage Component water if any, and any other applicable credits and charges provided in this Agreement. If funds are due from DWR to the AGENCY, the AGENCY shall promptly invoice DWR, and DWR will pay the AGENCY within 30 days. DWR will compute the deposit balance attributable to the AGENCY and compute the interest amounts earned and credited or paid, and provide the AGENCY with detailed accounting of these balances. DWR will adjust the deposit balance attributable to the AGENCY's contribution to the deposit accordingly until the deposit is fully credited.

2. In the event that there are AGENCY deposit funds that have not been fully credited for Storage Component water that has been accounted for as Delivered Transfer Water that is made available through September 30, 2020, then these remaining deposit funds will be: (1) applied to future payments due by the AGENCY to DWR for Storage Component Delivered Transfer Water delivered on or after October 1, 2020 under a subsequent amendment between the Parties at the prices provided in Section 26 of the Yuba Water Purchase Agreement; or (2) if there is no such amendment, refunded by DWR to the AGENCY upon receipt of Prepayment funds from Yuba as provided in Section 25.A of the Yuba Water Purchase Agreement."

7. YUBA WATER SALES TO THIRD PARTIES

The Agreement is amended by adding at the end the following new section:

"**31. SALES TO THIRD PARTIES**

Amendment 5 to the Yuba Water Purchase Agreement provides for the sale of water to third parties under the terms outlined in Section 11.F of that agreement. In accordance with Sections 11.F.3 and 4 of the Yuba Water Purchase Agreement, so long as a transfer is carried out consistent with the transfer water accounting provisions of Exhibit 1 for Released Transfer Water during Balanced Conditions, the AGENCY will not object based on the use of the transfer water accounting provisions of Exhibit 1 to such a transfer as not protective of DWR and the AGENCY as legal users of water during the time the AGENCY remains a Participating Contractor. The

AGENCY also agrees that while a Participating Contractor, it will not purchase water from Yuba other than through the Yuba Water Purchase Agreement."

8. NO OTHER CHANGES

All remaining provisions of the Agreement that are not changed by this Amendment will remain in full force and effect.

9. COUNTERPARTS OF THE AGREEMENT

This Amendment may be signed in any number of counterparts by the Parties, each of which will be deemed to be an original, and all of which together will be deemed to one and the same instrument. This Amendment, if executed in counterparts, will be valid and binding on a Party as if fully executed all in one copy.

IN WITNESS WHEREOF, the Parties hereto, by their authorized representatives, have executed this Amendment on the last date set forth below.

Approved as to legal form and sufficiency:	STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES
_____	_____
Cathy Crothers Chief Counsel	Mark W. Cowin Director
_____	_____
Date	Date
Approved as to legal form and sufficiency:	Mojave Water Agency
_____	_____
Counsel	Title
_____	_____
Date	Date

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
AND
YUBA COUNTY WATER AGENCY

AGREEMENT FOR THE LONG-TERM PURCHASE OF WATER FROM YUBA COUNTY WATER AGENCY BY THE DEPARTMENT OF WATER RESOURCES

This Agreement is entered into as of December 4, 2007 between the Department of Water Resources of the State of California, pursuant to the provisions of the California Water Resources Development Bond Act, the Central Valley Project Act and other applicable laws of the State of California, and Yuba County Water Agency, pursuant to the Yuba Act (California Statutes 1959, Chapter 788, as amended) and other applicable laws of the State of California. Defined terms are set forth in section 1 of this Agreement.

RECITALS

A. DWR operates and maintains the SWP pursuant to the laws of the State of California, involving the development and conveyance of water supplies to water supply agencies throughout the State of California.

B. Reclamation has constructed and is operating the CVP for the diversion, storage, carriage, and distribution of waters of the State of California for irrigation, municipal, domestic, industrial water supplies, for fish and wildlife mitigation, protection and restoration, and for generation and distribution of electric energy, salinity control, navigation, flood control, recreation and other beneficial uses.

C. Yuba is a public agency created and existing pursuant to the provisions of the Yuba Act. Yuba owns and operates the Yuba River Development Project, including the Yuba Project.

D. Yuba is engaged in the Yuba River Accord initiative to resolve issues associated with operation of the Yuba Project in a way that protects lower Yuba River fisheries and local water-supply reliability, while providing revenues for local flood control projects, water to use for protection and restoration of Delta fisheries, and improvements in state-wide water supply management.

E. The Yuba River Accord includes three major elements, all of which must be in place for the Yuba River Accord to become effective: (1) the Fisheries Agreement, under which Yuba would revise the operations of the Yuba Project to provide higher flows in the lower Yuba River under certain conditions to improve fisheries protection and enhancement; (2) the Conjunctive Use Agreements between Yuba and water districts within Yuba County for implementing a conjunctive use and water use efficiency program; and (3) this Agreement between Yuba and DWR, pursuant to which DWR will have rights to beneficially use water flows made available by Yuba through the Fisheries Agreement, the Conjunctive Use Agreements, and additional water releases from the Yuba Project, which Yuba asserts it would not and could not make available from the Yuba Project in the absence of the Yuba River Accord and without the revenues provided to Yuba under this Agreement.

F. DWR supports the Yuba River Accord, and is willing to enter into this Agreement because it will enable the Yuba River Accord to become effective, thereby improving fishery conditions on the Yuba River and improving water supplies to DWR for: (1) the EWA; (2) the SWP contractors pursuant to DWR's dry-year supplemental water supply programs; and (3) the members of the San Luis & Delta-Mendota Water Authority pursuant to DWR's dry-year supplemental water supply programs.

G. The Parties believe that this Agreement is consistent with: (1) Yuba's commitments to utilize water management tools (such as conjunctive use of groundwater), to create operational efficiencies, and manage water shortage risks in new ways that would benefit the fisheries and augment water supplies for downstream users; and (2) the Projects' need for additional water supplies.

H. Yuba is authorized under the Yuba Act to enter into long-term contracts to sell water for use outside of Yuba County, subject to the provision of Section 5.2 of the Yuba Act. Yuba has determined, after compliance with the procedures set forth in Section 5.2 of the Yuba Act, that the water subject to sale or disposition under this Agreement will not be needed during the term of this Agreement by or for the Member Units of Yuba. Yuba has further determined that Yuba is willing, in exchange for the consideration described in this Agreement, to enter into this Agreement.

I. The Parties, in coordination and consultation with Reclamation, the SWP contractors and the San Luis & Delta-Mendota Water Authority, carried out pilot water transfer programs during the 2006 and 2007 Water Accounting Years, and, based on the success of these pilot programs, desire to move forward with this Agreement, as part of the Yuba River Accord.

J. A portion of the Water delivered under this Agreement will be paid for with funds appropriated pursuant to Chapter 7(d) of Proposition 50, California Water Code Section 79550(d).

K. DWR will enter into separate agreements with the SWP contractors and the San Luis & Delta-Mendota Water Authority for the allocation of, and payment for, the Water to the extent determined necessary by DWR to satisfy payment obligations of this Agreement. Reclamation has

determined to not be a party to this Agreement. Yuba and DWR will amend this Agreement at such time as Reclamation is willing to become a party, subject to Reclamation and DWR entering into a separate agreement for the allocation of, and payment for, Water under this Agreement.

L. The Parties have determined that this Agreement does not conflict with Section 25 of the Short-Term Phase 8 Settlement Agreement.

M. In consideration of potential changes that may occur in SWP and CVP Delta operations and implementation of this Agreement related to orders of the United States District Court in *NRDC v. Kempthorne* (Case no. 05-CV-01207, OWW, E.D. Cal.): (1) Yuba revised the environmental analyses in the Yuba River Accord final environmental impact report/environmental impact statement to consider potential effects of the orders from the United States District Court; and (2) the Parties revised the payment provisions for Component 2 Water in Section 6B1 of this Agreement (to $75 per acre foot in a Water Year that has a Final Classification as Dry, instead of $50 per acre foot, and to $93.75 per acre foot in a Water Year that has a Final Classification as Critical, instead of $62.50 per acre foot).

AGREEMENT

The Parties agree as follows:

1. Definitions.

When used herein, the term:

"Buyer" means DWR.

"CALFED" means the joint federal and California program, intended to develop and implement a long-term comprehensive plan that will, among other purposes, restore ecological health of the Bay-Delta System and improve water project management..

"CEQA" means the California Environmental Quality Act.

"Component 1 Water" means the water supplies described in Section 5 of this Agreement.

"Component 2 Water" means the water supplies described in Section 6 of this Agreement.

"Component 3 Water" means the water supplies described in Section 7 of this Agreement.

"Component 4 Water" means the water supplies described in Section 8 of this Agreement.

"Conference Year" means a Water Year for which the North Yuba Index is less than 500,000 acre-feet, calculated according to the procedures and formulas set forth in Exhibits 4 and 5 of the Fisheries Agreement, and using the latest available forecasts for the Water Year.

"Conjunctive Use Agreements" means those agreements (if any) for implementing a conjunctive use and water use efficiency program between Yuba and a sufficient number of Member Units that Yuba determines is satisfactory for Yuba to meet Yuba's obligations under this Agreement, the Fisheries Agreement, and the Yuba Act.

"CVP" means the Central Valley Project, operated by Reclamation.

"Decision 1644" means Revised Water-Right Decision 1644 of the State Board, adopted on July 16, 2003.

"DWR" means the Department of Water Resources of the State of California.

"Effective Date" means the date that this Agreement will take effect, as provided in Section 3 ("Effective Date").

"ESA" means the federal Endangered Species Act of 1973, as amended (16 U.S.C. sections 1531-1544).

"EWA" means the environmental water account program described in the CALFED Record of Decision and the EWA Operating Principles Agreement (August 28, 2000, as extended in September 2004), as extended by amendment and supplemental approvals, or a long-term environmental water account program.

"Feather River Diversion Facility" means an intake structure, pumping facilities, a fish screen that meets State and Federal fish screen criteria, and related facilities that Yuba may consider constructing at some future time at or below the confluence of the Yuba River and the Feather River for the diversion of water under Yuba's existing water rights for use within Yuba County. Yuba has no current plans to develop or construct the Feather River Diversion facility. If this project were developed, the Feather River Diversion Facility would be added as a point of re-diversion under Yuba's existing water rights. On a real-time basis, diversions by Yuba at the Feather River Diversion Facility: (1) would not exceed the quantity of water that would have been available to Yuba for diversion from Yuba River flows upstream of its confluence with the Feather River; (2) when added to the quantity of water diverted by Yuba at Yuba's Daguerre Point of Diversion, would not exceed the quantities of water under Yuba's water rights that Yuba had diverted to beneficial use under applicable provisions of law (including Chapter 1 of Part 1 of Division 2 of the Water Code)

prior to the initiation of water diversions at the Feather River Diversion Facility; and (3) would not cause adverse impacts to, or interfere with, DWR or Reclamation's operations of the SWP and CVP, or cause DWR or Reclamation to have to modify operations of their respective SWP or CVP facilities.

"FERC" means the Federal Energy Regulatory Commission.

"FERC License" means the license, as amended, issued to Yuba by FERC for the operation of the power facilities of the Yuba Project, the term of which expires on April 30, 2016.

"FERC Annual License" means one or more annual licenses issued to Yuba by FERC for the operation of the power facilities of the Yuba Project following the expiration of the term of the FERC License.

"FERC Long-Term License" means the long-term license issued to Yuba by FERC for the operation of the power facilities of the Yuba Project following the expiration of the term of the FERC License and the last FERC Annual License.

"Final Classification" means the year-type classification for the Sacramento River region in the May issue of DWR's Bulletin 120.

"Fisheries Agreement" means the agreement among Yuba, the California Department of Fish and Game, and other parties, under which Yuba operates the Yuba Project to provide higher flows in the lower Yuba River under certain conditions to improve fisheries protection.

"*Force Majeure* Event" means any: (1) flood; (2) earthquake; (3) failure of the California Aqueduct, the Delta-Mendota Canal, levees, other conveyance facilities, or other major components of the SWP, CVP or the Yuba Project; (4) act of God (other than drought); or (5) any other event (other than a Regulatory Action) beyond the reasonable control of DWR, Reclamation, or Yuba that significantly affects the ability to divert or use Water delivered by Yuba under this Agreement, or that significantly affects Yuba's ability to deliver Water under this Agreement while also meeting its obligations to its Member Units or its obligations under the Fisheries Agreement.

"Groundwater O&M Costs" means the costs related to pumping groundwater as described in Section 12 ("Other Payments to Yuba by Buyers") of this Agreement.

"Groundwater Substitution Transfer Monitoring and Operations Program" means the program, set forth in Exhibit 3 to this Agreement, pursuant to which Yuba will monitor and report groundwater pumping to implement this Agreement.

"Management Committee" means the committee, consisting of one representative each from Yuba, DWR, Reclamation, the CALFED fishery agencies on behalf of EWA, SWP contractors, and the San Luis & Delta-Mendota Water Authority, established under Section 14 ("Technical Committee and Management Committee") of this Agreement.

"Member Units" means a "Member Unit" as defined in Section 2(g) of the Yuba Act.

"NEPA" means the National Environmental Policy Act.

"Parties" means DWR and Yuba.

"PG&E" means Pacific Gas and Electric Company.

"PG&E Power Contract" means the power purchase contract between Yuba and PG&E related to the operation of the Yuba Project for the generation of hydroelectric power, dated May 13, 1966.

"Projects" means the SWP and the CVP.

"Reclamation" means the United States Department of the Interior, Bureau of Reclamation.

"Regulatory Action" means a court order, regulatory action or change in applicable law that significantly affects the Parties' or Reclamation's ability to divert or use Water, or that significantly affects Yuba's ability to deliver Water while also meeting its obligations to its Member Units or its obligations under the Fisheries Agreement.

"Short-Term Phase 8 Settlement Agreement" means the "Short-Term Agreement to Guide Implementation of Short-Term Water Management Actions to Meet Local Water Supply Needs and to Make Water Available to the SWP and CVP to Assist in Meeting the Requirements of the 1995 Water Quality Control Plan and to Resolve Phase 8 Issues" (effective date March 24, 2003).

"State Board" means the California State Water Resources Control Board.

"SWP" means the State Water Project operated by DWR. The SWP is also known as the State Water Facilities, as defined in California Water Code section 12934(d).

"Technical Committee" means the committee, consisting of technical representatives from Yuba, DWR, Reclamation, the CALFED fishery agencies on behalf of EWA,

SWP contractors and the San Luis & Delta-Mendota Water Authority, established under Section 14 ("Technical Committee and Management Committee") of this Agreement.

"Water" means Component 1 Water through Component 4 Water delivered by Yuba in a manner consistent with the provisions of Section 11 ("General Provisions Applicable to Water") of this Agreement.

"Water Accounting Year" means the twelve-month period from January 1 to December 31. The Water Accounting Year will be used to account for Water.

"Water Year" means the twelve-month period from October 1 of one year through September 30 of the following year. For this Agreement, each Water Year will be classified: (1) as "Wet," "Above-Normal," "Below-Normal," "Dry" or "Critical," based on the Sacramento Valley Water Year Hydrologic Classification in Figure 1 on page 188 of the State Board's March 15, 2000, Revised Water-Right Decision 1641; or (2) as a "Conference Year," based on the procedures and formulas set forth in Exhibits 4 and 5 of the Fisheries Agreement, using the latest available forecast for the Water Year.

"Yuba" means the Yuba County Water Agency.

"Yuba Act" means the Yuba County Water Agency Act, California Statutes 1959, Chapter 788, as amended.

"Yuba Project" means the Yuba River Development Project, including New Bullards Bar Dam and Reservoir on the North Yuba River.

"Yuba River Accord" means Yuba's initiative as described in Recitals D and E of this Agreement.

2. Term of Agreement.

This Agreement will terminate on December 31, 2025, or when all obligations under this Agreement have been satisfied, whichever is later, unless this Agreement is terminated earlier as provided herein.

3. Effective Date.

This Agreement will become effective when all of the following have occurred: (1) full execution of this Agreement; (2) full execution of the Fisheries Agreement; (3) full execution of the Conjunctive Use Agreements (if any, unless Yuba provides DWR written notification of Yuba's waiver of this condition); (4) full execution of an agreement between Yuba and PG&E to amend provisions of the PG&E Power Contract, and approval of the California Public Utilities Commission

of such an amendment, if determined necessary by Yuba (unless Yuba provides DWR written notification of Yuba's waiver of this condition); (5) receipt of all State Board approvals that may be necessary to enable the Fisheries Agreement and this Agreement to be fully implemented; and (6) full execution of the agreements between DWR and one or more SWP contractors, and an agreement between DWR and the San Luis & Delta-Mendota Water Authority, referred to in Recital K of this Agreement. The Parties will support the actions described in this section.

4. Actions Taken by Yuba to Make Water Available.

A. In accordance with Section 5.2 of the Yuba Act, all sales of Water are subject to the prior right to the use of such water or Yuba facilities by or for the Member Units. Yuba has taken the following measures to assure that the quantities of Water will be available to DWR during all Water Year types, as provided in this Agreement, for the term of this Agreement:

1. Yuba has entered into the Conjunctive Use Agreements (if any) under which the contracting Member Units have agreed to provide groundwater supplies in substitution for surface water supplies to assist Yuba in implementing this Agreement, to the extent (if any) determined by Yuba to be satisfactory for Yuba to meet Yuba's obligations under this Agreement, the Fisheries Agreement, and the Yuba Act; and

2. Yuba is implementing a groundwater monitoring program within its service area to ensure that the groundwater supply developed pursuant to the Conjunctive Use Agreements (if any) is within the long-term safe yield of the affected aquifer; and

3. The Board of Directors of Yuba has adopted a resolution making findings concerning Yuba's compliance with Section 5.2 of the Yuba Act, and determining that the Water exceeds the needs of its Member Units and that Yuba can and will perform its obligations under this Agreement.

B. In addition, Yuba may consider the installation and operation of the Feather River Diversion Facility at some future time in the event that Yuba determines that operation of the Feather River Diversion Facility would assist Yuba in making water supplies available within Yuba County. Subject to Yuba agreeing to operate this facility in the manner described in the definition of Feather River Diversion Facility, DWR will not oppose the installation and operation of the Feather River Diversion Facility for this purpose, and will not object to Yuba obtaining regulatory permits and approvals for the Feather River Diversion Facility.

5. Component 1 Water

A. Component 1 Water Quantity.

1. In each of the first eight Water Accounting Years of this Agreement (January 1, 2008 through December 31, 2015), Yuba will deliver to the Buyer, for use by the EWA, and the Buyer will pay for, 60,000 acre-feet of Component 1 Water, subject to Section 11 ("General Provisions Applicable to Water") of this Agreement. The total quantity of Component 1 Water that Yuba will deliver to the Buyer during the first eight Water Accounting Years of this Agreement will be 480,000 acre-feet, subject to extending the delivery period beyond the eight years if needed pursuant to subsection 2 below and Section 11G. Unless conditions under Section 23D ("As to Termination of the EWA Program") apply, Component 1 Water will be used to support continued implementation of EWA.

2. In certain years, and pursuant to the accounting principles set forth in Exhibit 1, operational limitations of the Yuba Project, the CVP, and/or the SWP may cause the quantity of Component 1 Water that Yuba can deliver to the Buyer to be reduced below 60,000 acre-feet during a Water Accounting Year. Under those circumstances, unless the Parties agree otherwise, Yuba will deliver the undelivered Component 1 Water so that the remaining quantity of the 480,000 acre-feet will be delivered during subsequent years under the following conditions: (a) during the next Water Accounting Year that is not a Dry or Critical Water Year; (b) when such make-up water can be delivered from Yuba's available surface-water supply; and (c) on a schedule that is acceptable to the Buyer and Yuba that would not impair the ability of Yuba to make Components 2 through Components 4 Water available, as provided in this Agreement.

3. The Buyer and Yuba will schedule Component 1 Water pursuant to Section 9 ("Scheduling of Water") of this Agreement.

4. In all Water Accounting Years that include all or part of the term of any FERC Annual License, Yuba will deliver to the Buyer, and the Buyer will pay for, 60,000 acre-feet of Component 1 Water, subject to Sections 15A(2) and 15B of this Agreement.

5. The quantities of Component 1 Water delivered by Yuba to the Buyer during all Water Accounting Years that include the term of the FERC Long-Term License, and do not include any part of the term of any FERC Annual License, will be subject to Sections 15A(3) and 15C of this Agreement.

B. Component 1 Water Pricing.

1. As full compensation to Yuba for making Component 1 Water in Section 5A available during each of the first eight Water Accounting Years of this Agreement, or in subsequent years under Section 5A2 and 11G, the Buyer will pay Yuba $30,900,000. This payment will be made as described in Section 5C and Section 10 ("Invoicing") of this Agreement.

2. The pricing provisions applicable to additional Component 1 Water delivered by Yuba to the Buyer during all Water Accounting Years after the first eight Water

Accounting Years will be those set forth in Section 15 ("Quantities of and Pricing Provisions for Water During a FERC Annual License and During the FERC Long-Term License") of this Agreement.

C. Component 1 Water Payment Provisions.

In accordance with Section 10 ("Invoicing") of this Agreement, Yuba will, within thirty days of the Effective Date, submit an invoice to DWR for the payment of $30,900,000 for the 480,000 acre-feet Component 1 Water. DWR will make payment to Yuba within sixty days of the date the invoice has been received by both the DWR Contract Manager and the Accounting Office.

6. Component 2 Water.

A. Component 2 Water Quantity.

1. In addition to Component 1, 3, or 4 Water, Yuba will deliver to the Buyer, subject to Section 11 ("General Provisions Applicable to Water") of this Agreement, and the Buyer will pay for:

a. In any Water Year that has a Final Classification as Dry, 15,000 acre-feet of Component 2 Water; and

b. In any Water Year that has a Final Classification as Critical, 30,000 acre-feet of Component 2 Water.

2. The Buyer and Yuba will schedule Component 2 Water pursuant to Section 9 ("Scheduling of Water") of this Agreement.

3. In all Water Accounting Years that include all or part of the term of any FERC Annual License, Yuba will deliver to the Buyer Component 2 Water, subject to Sections 15A(2) and 15B of this Agreement.

4. The quantities of Component 2 Water delivered by Yuba to the Buyer during all Water Accounting Years that include the term of the FERC Long-Term License, and do not include any part of the term of any FERC Annual License, will be subject to Sections 15A(3) and 15C of this Agreement.

B. Component 2 Water Pricing.

1. The Buyer will pay Yuba for Component 2 Water as follows:

a. In any Water Year that has a Final Classification as Dry, $75.00 per acre-foot;

b. In any Water Year that has a Final Classification as Critical, $93.75 per acre-foot; and

c. The payment adjustments (if any) provided for in Section 12C of this Agreement.

2. The Buyer will pay Yuba for Component 2 Water pursuant to Section 6C and Section 10 ("Invoicing") of this Agreement.

3. The pricing provisions applicable to Component 2 Water delivered by Yuba to Buyer during all Water Accounting Years that include all or part of the term of any FERC Annual License or the term of the FERC Long-Term License are set forth in Section 15 ("Quantities of and Pricing Provisions for Water During a FERC Annual License and During the FERC Long-Term License") of this Agreement.

C. Component 2 Payment Provisions.

1. For each Water Year that Component 2 Water is being delivered to the Buyer, Yuba will submit an invoice to the Buyer on or after June 1 for fifty percent of the amount due for Component 2 Water scheduled to be delivered to the Buyer pursuant to this Agreement, adjusted by an amount equal to fifty percent of any credits due from Yuba to the Buyer. By January 7 of the subsequent year, Yuba will submit an invoice to the Buyer for the remaining fifty percent of the amount due for Component 2 Water scheduled to be delivered to the Buyer pursuant to this Agreement, less the remaining amount of any credits due the Buyer. The invoices will contain all of the information and be transmitted to Buyer as set forth in Section 10 ("Invoicing") of this Agreement.

2. DWR will pay Yuba within sixty days of the date that both the DWR Contract Manager and the Accounting Office receive invoices containing all of the information required by Section 10(B) of this Agreement. With respect to the first invoice from Yuba, the Buyer will pay Yuba an amount equal to fifty percent of the price for the Component 2 Water that has been scheduled for delivery during the current Water Accounting Year in accordance with Section 9 ("Scheduling of Water") of this Agreement, minus fifty percent of any credit due from Yuba to the Buyer pursuant to Section 12 ("Payments for Fixed Annual Costs") of this Agreement. With respect to the second invoice from Yuba, the Buyer will pay the remaining amount due to Yuba for Component 2 Water, based on an accounting of actual Water deliveries in the previous Water Accounting Year, less the remaining amount of any credit due the Buyer pursuant to Section 12 ("Payments for Fixed Annual Costs") of this Agreement. With respect to both invoices from Yuba, DWR will pay Yuba within sixty days of the date both the DWR Contract Manager and the

Accounting Office have received the appropriate invoices containing all of the information required by Section 10(B) of this Agreement.

7. Component 3 Water.

A. Component 3 Water Quantity.

1. In addition to Component 1, 2, or 4 Water, and subject to Section 11 ("General Provisions Applicable to Water") of this Agreement:

a. When the allocations as of April 21:

(i) For CVP South of Delta agricultural contractors are at or below thirty-five percent of their CVP contractual entitlements, and for SWP contractors are at or below forty percent of their SWP water supply contract Table A Amounts, Yuba will deliver to the Buyer, and the Buyer will pay for, 40,000 acre-feet of Component 3 Water; or

(ii) For CVP South of Delta agricultural contractors are at or below forty-five percent and above thirty-five percent of their CVP contractual entitlements, or for SWP contractors are at or below sixty percent and above forty percent of their SWP water supply contract Table A Amounts the Buyer, on or before April 21, the Buyer may request that Yuba deliver up to 40,000 acre-feet of Component 3 Water, and Yuba will deliver to Buyer the quantity of Component 3 Water requested.

2. The Buyer and Yuba will schedule Component 3 Water pursuant to Section 9 ("Scheduling of Water") of this Agreement. In addition:

a. If after April 21, but prior to May 21, allocations to CVP South of Delta agricultural contractors or SWP contractors decrease, then:

(i) if section 7A(1)(a)(ii) of this Agreement remains applicable notwithstanding the decreased allocation(s), the Buyer will have the right to call for Component 3 Water or additional Component 3 Water up to the maximum amount authorized by section 7A(1)(a)(ii); provided, however, that the quantity or increased quantity of Component 3 Water Yuba is required to deliver will be reduced to reflect any reduction in the amount of groundwater pumping availability between April 21 and May 21.

(ii) if section 7A(1)(a)(i) of this Agreement becomes applicable due to the decreased allocations, and the Buyer had opted to have less than 40,000 acre feet of Component 3 Water delivered, Yuba will deliver to the Buyer, and the Buyer will pay for 40,000 acre feet of Component 3 Water reduced by an amount that reflects any reduction in the amount of groundwater pumping availability between April 21 and May 21.

b. If after April 21, but prior to May 21, allocations to CVP South of Delta agricultural contractors or SWP contractors increase, then the Buyer may, on or before May 21, reduce their request for Component 3 Water to the greater of zero or the quantity of water already delivered by Yuba plus the quantity of water already stored by Yuba through the substitution of groundwater for surface water in anticipation of Component 3 Water deliveries originally requested by the Buyer. This section will not apply to circumstances where, notwithstanding an increase in the Buyer' May water supply allocations, Section 7(A)(1)(a)(i) of this Agreement remains applicable.

3. In all Water Accounting Years that include all or part of the term of any FERC Annual License, Yuba will deliver to the Buyer, and the Buyer will pay for, Component 3 Water, subject to Section 15B of this Agreement.

4. The quantities of Component 3 Water delivered by Yuba to the Buyer during Water Accounting Years that include the term of the FERC Long-Term License, and do not include any part of the term of any FERC Annual License, will be subject to Section 15C of this Agreement.

B. Component 3 Water Pricing.

1. The Buyer will pay Yuba for Component 3 Water as follows:

a. In any Water Year that has a Final Classification as Wet, $25.00 per acre-foot;

b. In any Water Year that has a Final Classification as Above-Normal, $50.00 per acre-foot;

c. In any Water Year that has a Final Classification as Below-Normal, $75.00 per acre-foot;

d. In any Water Year that has a Final Classification as Dry, $100.00 per acre-foot;

e. In any Water Year that has a Final Classification as Critical, $125.00 per acre-foot; and

f. The payment adjustments (if any) provided for in Section 12C ("Payments for Adjustments in Groundwater O&M Costs) of this Agreement.

2. The Buyer will pay Yuba for Component 3 Water pursuant to Section 7C and Section 10 ("Invoicing") of this Agreement.

3. The pricing provisions applicable to Component 3 Water delivered by Yuba to Buyer during all Water Accounting Years that include all or part of the term of any FERC Annual License or the term of the FERC Long-Term License are set forth in Sections 15B and C of this Agreement.

C. Component 3 Payment Provisions

1. In accordance with Section 10 ("Invoicing") of this Agreement, Yuba will submit an invoice to the Buyer on or after June 1 each Water Accounting Year for fifty percent of the amount due for Component 3 Water scheduled to be delivered to the Buyer pursuant to this Agreement, adjusted by an amount equal to fifty percent of any credits due from Yuba to the Buyer. By January 7 of the subsequent year, Yuba will submit an invoice to the Buyer for the remaining fifty percent of the amount due for Component 3 Water scheduled to be delivered to the Buyer pursuant to this Agreement, less the remaining amount of any credits due the Buyer.

2. In accordance with Section 10 ("Invoicing") of this Agreement, DWR will pay Yuba within sixty days of the date that both the DWR Contract Manager and the Accounting Office receive the appropriate invoices and verification that the amount of Component 3 Water specified therein has been scheduled in accordance with Section 9 ("Scheduling of Water") of this Agreement. The Buyer will pay Yuba an amount equal to fifty percent of the price for the Component 3 Water that has been scheduled for delivery during the current Water Accounting Year in accordance with Section 9 ("Scheduling of Water") of this Agreement, minus fifty percent of any credit due from Yuba to the Buyer pursuant to Section 12 ("Payments for Fixed Annual Costs") of this Agreement. On or before March 7 of the subsequent year, the Buyer will pay the remaining amount due to Yuba for Component 3 Water, based on an accounting of actual Water deliveries in the previous Water Accounting Year, less the remaining amount of any credit due the Buyer pursuant to Section 12 ("Payments for Fixed Annual Costs") of this Agreement.

8. Component 4 Water.

A. Component 4 Water Quantity.

1. In addition to Component 1, 2, or 3 Water, Yuba will provide to the Buyer, subject to Section 11 ("General Provisions Applicable to Water") of this Agreement, Component 4 Water as follows:

a. On or before April 10 of each year, Yuba will inform the Buyer of the quantity of Component 4 Water that Yuba could make available from Yuba's available surface and groundwater that Water Accounting Year.

b. By May 15 the Buyer will notify Yuba if it will take delivery of any or all of the Component 4 Water that Yuba informed the Buyer that Yuba will make available.

2. The Buyer and Yuba will schedule Component 4 Water pursuant to Section 9 ("Scheduling of Water") of this Agreement.

3. In all Water Accounting Years that include all or a part of the term of any FERC Annual License, Yuba will deliver to the Buyer, and the Buyer will pay for, Component 4 Water pursuant to Section 15B of this Agreement.

4. The quantities of Component 4 Water delivered by Yuba to the Buyer during all Water Accounting Years that include the term of the FERC Long-Term License, and do not include any part of the term of any FERC Annual License, will be subject to Section 15C of this Agreement.

B. Component 4 Water Pricing.

1. The Buyer will pay Yuba for Component 4 Water as follows:

a. In any Water Year that has a Final Classification as Wet, $25.00 per acre-foot;

b. In any Water Year that has a Final Classification as Above-Normal, $50.00 per acre-foot;

c. In any Water Year that has a Final Classification as Below-Normal, $75.00 per acre-foot;

d. In any Water Year that has a Final Classification as Dry, $100.00 per acre-foot;

e. In any Water Year that has a Final Classification as Critical, $125.00 per acre-foot

f. The payment adjustments (if any) provided for in Section 12C ("Payments for Adjustments in Groundwater O&M Costs") of this Agreement.

2. The Buyer will pay Yuba for Component 4 Water pursuant to the payment and invoicing provisions of this Section.

3. The pricing provisions applicable to Component 4 Water delivered by Yuba to Buyer during all Water Accounting Years that include all or part of the term of any FERC

Annual License or the term of the FERC Long-Term License are set forth in Sections 15B and C of this Agreement.

C. Component 4 Payment Provisions.

1. In accordance with Section 10 ("Invoicing") of this Agreement, Yuba will submit an invoice to the Buyer on or after June 1 each Water Accounting Year for fifty percent of the amount due for Component 4 Water scheduled to be delivered to the Buyer pursuant to this Agreement, adjusted by an amount equal to fifty percent of any credits due from Yuba to the Buyer. By January 7 of the subsequent year, Yuba will submit an invoice to the Buyer for the remaining fifty percent of the amount due for Component 4 Water scheduled to be delivered to the Buyer pursuant to this Agreement, less the remaining amount of any credits due the Buyer.

2. In accordance with Section 10 ("Invoicing") of this Agreement, DWR will pay Yuba within sixty days of the date that both the DWR Contract Manager and the Accounting Office receive the appropriate invoices and verification that the amount of Component 4 Water specified therein has been scheduled in accordance with Section 9 ("Scheduling of Water") of this Agreement. The Buyer will pay Yuba an amount equal to fifty percent of the price for the Component 4 Water that has been scheduled for delivery during the current Water Accounting Year in accordance with Section 9 ("Scheduling of Water") of this Agreement, minus fifty percent of any credit due from Yuba to the Buyer pursuant to Section 12 ("Payments for Fixed Annual Costs") of this Agreement. On or before March 7 of the subsequent year, the Buyer will pay the remaining amount due to Yuba for Component 4 Water, based on an accounting of actual Water deliveries in the previous Water Accounting Year, less the remaining amount of any credit due the Buyer pursuant to Section 12 ("Payments for Fixed Annual Costs") of this Agreement.

9. Scheduling of Water.

On or about April 10 of each Water Accounting Year, or as soon thereafter as practicable, the Parties will agree on a proposed delivery schedule for Component 1, 2, 3 and 4 Water. The proposed schedule may be revised periodically thereafter, and the Parties will agree on a final schedule no later than May 21. The final schedule will be updated to accommodate any changes in the North Yuba Index or the Yuba River Index and may be adjusted to account for changes in Bay-Delta conditions, including hydrologic or regulatory conditions, that affect the delivery of Water, and for changes in the flow schedule for the lower Yuba River as provided for in the Fisheries Agreement. The proposed and final schedules will also show the scheduling of water delivered by Yuba under the Short-Term Phase 8 Settlement Agreement. The scheduling of Water, and any adjustments to the schedule, will be in accordance with the water scheduling and accounting provisions set forth in Exhibit 1 ("Scheduling and Accounting Principles") of this Agreement.

10. Invoicing.

A. Reserved.

B. Yuba's invoices to DWR will contain the following information:

i) Federal and State Agreement numbers;
ii) Yuba's Taxpayer Identification Number;
iii) remittance address;
iv) point of contact;
v) for estimated payments, verification that the Water has been scheduled in accordance with Section 9 ("Scheduling of Water") of this Agreement; and
vi) for year-end payments, certification that the Water has been delivered.

C. Yuba will submit, at the same time, two copies of each invoice to DWR State Water Project Analysis Office and one copy to DWR Accounting office at the following addresses:

Department of Water Resources
Chief, State Water Project Analysis Office
1416 Ninth Street
Post Office Box 942836
Sacramento, California 94236-0001

Department of Water Resources
Accounting Office, Contracts Payable Unit
Post Office Box 942836
Sacramento, California 94236-0001

11. General Provisions Applicable to Water.

A. Accounting for Water.

Water delivered by Yuba to the Buyer will be accounted for in the manner set forth in Exhibit 1 ("Scheduling and Accounting Principles") of this Agreement. To the extent a conflict exists between the provisions of this Agreement and Exhibit 1, the provisions of this Agreement will control. Notwithstanding any other provision of this Agreement, the Buyer will only pay for water delivered by Yuba to the Buyer that is accounted for as Delivered Transfer Water pursuant to Exhibit 1.

B. Reservoir Refill Impact Accounting.

Yuba will provide assurance to the Buyer and Reclamation that the refilling of reservoir storage in the Yuba Project resulting from the delivery of Water under this Agreement will not adversely impact the Projects. Yuba will avoid adverse impacts to the Projects by complying with the

provisions of Exhibit 2 ("Reservoir Refill Accounting Provisions") of this Agreement. The provisions of Exhibit 2 will not apply to Water made available as a result of Yuba delivering groundwater instead of surface water to its Member Units to implement this Agreement.

C. Yuba's Conjunctive Use Program.

To the extent that Yuba delivers groundwater instead of surface water to its Member Units in order to deliver Water to the Buyer pursuant to this Agreement, Yuba will comply with the provisions of Exhibit 3 ("Groundwater Substitution Transfer Monitoring and Operations Program") of this Agreement.

D. Conference Year Principles.

During any Conference Year, the Parties will meet (along with the parties to the Fisheries Agreement and the Conjunctive Use Agreements) to determine how to address the circumstances, and to discuss the operation of the Yuba Project during that Water Accounting Year. During a Conference Year: (1) Yuba will have no obligation to deliver any quantity of Components 1 through 4 Water; (2) Yuba will not have to refund any part of the payment received for Component 1 Water; and (3) Yuba will deliver in a subsequent Water Accounting Year on a schedule that is acceptable to the Buyer and Yuba the quantity of Component 1 Water that was not delivered during the Conference Year.

E. Efforts to Maximize the Beneficial Use of Water.

Yuba will optimize to the extent feasible the operation of the Yuba Project to meet Yuba's obligations to supply Water under this Agreement. DWR will coordinate with Reclamation in the operation of the Projects to maximize the beneficial use of Water released by Yuba under this Agreement, including without limitation using all reasonable efforts to store water in Project facilities when Delta pumping is constrained and to avoid spills of water stored as result of the release of Water.

F. Sale to Third Parties.

To the extent the Water is otherwise transferable under California law, in those years when Yuba offers Components 3 or 4 Water, but the Buyer decline to take all of the Water offered, Yuba may sell the Water not taken by Buyer to a third party, provided that such sale to the third party will not impair Yuba's ability to meet its obligations to deliver Components 1 through 4 Water in the current or any future Water Accounting Year. In addition, to the extent the water is otherwise transferable under California law, Yuba may sell to a third party any quantity of Components 1, 3 or 4 Water released by Yuba that would have been accounted for as Water except for the inability of the Buyer to take delivery (e.g., during times when the Bay-Delta was out of balance). Yuba will provide the Buyer ten days' advance notice of a sale to a third party under this section.

G. Periodic Accounting of Water Delivered by Yuba.

After the first eight years of operations under this Agreement, and as appropriate thereafter, the Parties, with the assistance of the Technical Committee and the Management Committee, will develop a comprehensive accounting of all Water delivered under this Agreement. If it is determined that less than the quantities of Water required to be delivered during the first eight years have been delivered, and the Buyer has paid for quantities of Water that have not been delivered, then Yuba will deliver supplies of Water to the Buyer to make up for such deficiencies, on a schedule that is acceptable to the Buyer and Yuba that would not impair the ability of Yuba to make other deliveries of Water under this Agreement.

12. Other Payments to Yuba by the Buyer.

A. Diesel Conversions.

In furtherance of the mitigation of potential impacts to air quality from implementation of the Accord, Yuba has implemented a program to convert certain pumps used to pump groundwater from diesel to electric, or to other forms of energy that reduce air quality impacts. Conversion of pumps to electricity or other forms of energy that reduce air quality impacts has been and will be performed by Yuba for purposes of this Agreement. Prior to submitting invoices under this section to the Buyer under Section 10 ("Invoicing") of this Agreement, Yuba will: (1) submit to the Technical Committee for review documentation of the diesel conversion work performed and costs incurred from and after September 1, 2004 for purposes of this Agreement and the Accord; and (2) confirm to the Management Committee that the work performed and costs incurred were in furtherance of mitigation of potential impacts on air quality from implementation of the Accord. Subject to receipt of such information and concurrence by the Management Committee, the Buyer will pay Yuba the amount of such invoices, but not more than a total of $1,000,000.00.

B. Payments for Fixed Annual Costs and for Environmental Compliance.

1. During the term of this Agreement, on or before April 1 each year, the Buyer will pay to Yuba up to $250,000.00 to pay a portion of Yuba's annual costs for implementing the Yuba River Accord. On or before February 1, Yuba will submit to DWR invoices with documentation of costs incurred by Yuba to implement the Yuba River Accord, up to $250,000 per year. The Buyer will pay Yuba the amount of such invoice, but not more than $250,000 per year, pursuant to this Section and Section 10 ("Invoicing") of this Agreement. Yuba will provide to the Buyer, for payments made under this subsection, a credit against future payments due for Components 2, 3 and 4 Water. Yuba will record and accrue these credits from year to year until Yuba makes Component 2, 3 or 4 Water available, in which time such credits will be applied toward payments due.

2. Under separate agreements among them, Yuba, DWR and Reclamation have paid the costs of environmental compliance for implementing the Yuba River Accord, which is referred to in Section 16 ("Environmental Compliance") of this Agreement.

C. Payments for Adjustments in Groundwater O&M Costs.

During the term of this Agreement, the Buyer will pay Yuba, based on itemized invoices of work done and costs incurred, an amount to compensate for any annual increases above actual 2006 Groundwater O&M Costs using the Consumer Price Index, including those costs necessary for upkeep, power, and operation of those fixed assets that are dedicated to making Water available to the Buyer under this Agreement from groundwater sources, and recurring costs or payments required to obtain consents necessary to make Water available under this Agreement from groundwater sources. Groundwater O&M Costs will exclude general district overhead charges. Yuba will submit to the Technical Committee for a thirty-day review the documentation of work done and costs incurred prior to submitting invoices to the Buyer in accordance with the payment and invoicing provisions for Components 2, 3, or 4 Water under this Agreement. The Technical Committee will review invoices to ensure that payments made under the payment and invoicing provisions for Components 1 through 4 Water do not duplicate payments made under this subsection. Annual increases above the 2006 baseline will be computed based on the Consumer Price Increase as provided by the United States Department of Labor, Bureau of Labor Statistics.

13. Certain Payments Contingent on Appropriation or Allotment of Funds.

A. General.

In consideration of Yuba's eight-year commitment to deliver Component 1 Water, the Buyer confirm that the funds required to pay Yuba for Component 1 Water during that period have been appropriated, and DWR will encumber the funds to pay Yuba for Component 1 Water during that period on the schedule provided for in Section 5C1 of this Agreement. The Buyer intend that the payments due to Yuba under this Agreement for Components 2, 3, and 4 Water that is made available to the SWP and the San Luis & Delta-Mendota Water Authority will be paid from DWR funds received from the SWP and/or the San Luis & Delta-Mendota Water Authority. The Buyer will make contractual arrangements with the SWP and the San Luis & Delta-Mendota Water Authority under which the SWP and the San Luis & Delta-Mendota Water Authority would have an opportunity to make payments due to Yuba under this Agreement, in the event that the Buyer fails to make such payments when due, in order to avoid an interruption in Yuba making Water available to the Buyer under this Agreement. To the extent that the Buyer defaults in making the payments due to Yuba under this Agreement, then: (1) Yuba's obligation to make Water available to the Buyer under this Agreement will be excused to the extent and for the duration of the Buyer' default; (2) Yuba may attempt to mitigate its damages by selling Component 3 and Component 4 Water made available under this Agreement to other parties to the extent and for the duration of the Buyer'

default; and (3) the Buyer will be obligated to pay Yuba to the extent that Yuba is unable to mitigate Yuba's damages resulting from the Buyer' default.

B. State Funding Contingency.

Except to the extent that DWR uses funds from sources that do not require legislative budgetary appropriation, DWR's payment obligations under this Agreement are contingent on appropriation or allotment of funds through the State Budget process.

14. Technical Committee and Management Committee

A. Technical Committee.

The Technical Committee will: (1) collect, review and analyze information relevant to accounting for Water consistent with Exhibits 1 through 3, and information related to advances, payments and cost adjustments; (2) identify and attempt to resolve technical implementation issues; (3) periodically report to the Management Committee on the information gathered and any technical implementation issues identified; and (4) make recommendations to the Management Committee for resolution of any policy issues that arise or for any required factual determinations. If the Technical Committee is unable to agree on a recommendation to the Management Committee, the Technical Committee will cooperate to provide a balanced presentation of the facts, opinions and other information underlying the various positions on the issue to be determined.

B. Management Committee.

The Management Committee will: (1) provide policy guidance in implementing this Agreement; (2) make any factual determinations required to implement this Agreement; (3) consider information provided by the Technical Committee, if applicable, when making decisions; and (4) identify and resolve any policy-related implementation issues. If agreement among the representatives to the Management Committee cannot be reached on any issue necessary to the ongoing implementation of the Agreement, the Buyer and Yuba will meet and confer in a good faith effort to reach agreement. In the event that agreement cannot be reached among the Buyer and Yuba on an issue, that issue will be subject to Section 22 ("Remedies and Dispute Resolution") of this Agreement.

C. Interaction with River Management Team.

DWR will designate a representative to actively participate in the River Management Team established under the Fisheries Agreement. Reclamation may also designate a representative to participate in the River Management Team established under the Fisheries Agreement.

15. Quantities of and Pricing Provisions for Water During a FERC Annual License and During the FERC Long-Term License.

A. Intent of the Parties.

1. Yuba expects that, upon the expiration of the term of the FERC License, FERC will issue to Yuba one or more FERC Annual Licenses, before it issues to Yuba the FERC Long-Term License.

2. The Parties desire that Yuba continue to deliver, and the Buyer continue to pay for, additional quantities of Components 1 through 4 Water in accordance with Section 11 ("General Provisions Applicable to Water") of this Agreement during any Water Year beginning after September 30, 2015 for which either the FERC License or a FERC Annual License is in effect, if: (a) these quantities of Water can be delivered by Yuba consistent with the terms of the FERC License or any FERC Annual License; and (b) subject to a pricing agreement between the Parties. The Parties further intend that, other than the pricing provisions, there will be no change in the other provisions of this Agreement (including the provisions regarding the annual quantities of Components 1 through 4 Water delivered by Yuba, and paid for by the Buyer) during any Water Year beginning after September 30, 2015 that includes all or part of the term of any FERC Annual License, if the terms of the FERC Annual License do not significantly affect Yuba's ability to make these water supplies available.

3. The Parties desire that Yuba continue to deliver, and the Buyer continue to pay for, additional quantities of Components 1 through 4 Water in accordance with Section 11 ("General Provisions Applicable to Water") of this Agreement during any Water Year that is within the term of a FERC Long-Term License, and not within the term of any FERC Annual License, if these quantities of Water can be delivered by Yuba consistent with: (a) the terms of the FERC Long-Term License; (b) the water supply needs within the service area of Yuba; and (c) the ability of the Buyer and Yuba to agree to pricing provisions. The Buyer and Yuba further intend that, other than the quantity and pricing provisions, there will be no change in the other provisions of this Agreement during any Water Year that is within the term of a FERC Long-Term License.

B. Quantities of Water and Pricing Provisions Applicable During the Term of the FERC Annual Licenses.

During any Water Accounting Year beginning after December 31, 2015 during which either the FERC License or any FERC Annual License is in effect, Yuba will deliver, and the Buyer will pay for, additional quantities of Components 1 through 4 Water, in accordance with Section 11 ("General Provisions Applicable to Water") of this Agreement, subject to the following: (1) Yuba may adjust the quantities of Water that Yuba will deliver to the Buyer (but the quantity will not be less than 20,000 acre-feet of Water in each such Water Accounting Year, other than a Conference

Year), but only to the extent needed to reflect the ability of Yuba to deliver these quantities of Water consistent with the terms of the FERC Annual License; and (2) the Buyer and Yuba intend to negotiate in good faith the quantity and pricing provisions applicable to Components 1 though 4 during such Water Accounting Years, but under no circumstance will the price for the Water be less than the pricing provisions applicable to Components 1 through 4 Water, as set forth in Sections 5 through 8 of this Agreement.

C. Quantities of Water and Pricing Provisions Applicable During the Term of the FERC Long-Term License.

During any Water Accounting Year that is within the term of the FERC Long-Term License, and for which no part of the Water Accounting Year is within the term of any FERC Annual License, Yuba will deliver, and the Buyer will pay for, additional quantities of Components 1 through 4 Water, in accordance with Section 11 ("General Provisions Applicable to Water") of this Agreement, subject to the following: the Buyer and Yuba reach agreement as to the quantities of Components 1 through 4 Water that Yuba will deliver to the Buyer (but which quantities will not be less than 20,000 acre-feet of Water in any Water Accounting Year through December 31, 2025, other than during a Conference Year), to reflect the ability of Yuba to deliver these quantities of Water consistent with: (a) the terms of the FERC Long-Term License; (b) the water supply needs within the service area of Yuba; and (c) the Buyer and Yuba's intent to negotiate in good faith the quantity and pricing provisions applicable to Components 1 through 4 Water during the term of the FERC Long-Term License.

16. Environmental Compliance.

Yuba, as lead agency under CEQA has approved and filed a notice of determination concerning the implementation of the Yuba River Accord and its environmental effects. DWR as a responsible agency under CEQA will file a notice of determination concerning its responsibilities as to environmental effects of implementing this Agreement for the Yuba River Accord.

17. Approvals and Conditions Precedent to Performance of this Agreement.

A. Section 5.2 of the Yuba Act.

Yuba represents that Yuba has complied with the provisions of Section 5.2 of the Yuba Act, which requires that, prior to entering into this Agreement, the Board of Directors of Yuba to: (1) determine that water to be purchased under this Agreement would be surplus to the amount of water available to meet the contractual requirements of Member Units; (2) hold a public hearing to receive and consider comments on and objections to this Agreement; (3) confirm that a majority in number of registered voters residing within Yuba County have not filed written protests against this Agreement; and (4) find that the long-term purchase of water under this Agreement may be carried

out without injuring any legal user of water, without unreasonably affecting fish, wildlife or other instream beneficial uses, and without unreasonably affecting the overall economy of Yuba County.

B. Compliance with Water Code Section 1745.10.

Yuba represents that Yuba has complied with the provisions of Water Code Section 1745.10.

C. Other Approvals by Yuba.

Yuba will be responsible for obtaining approval of the State Board as necessary to enable this Agreement to be fully implemented, and for obtaining any other permits and approvals necessary for Yuba to make Water available for diversion by the Buyer under this Agreement. Pursuant to Section 24H of this Agreement, the Buyer will provide reasonable assistance to Yuba in Yuba's actions to obtain any permits or approvals that may be necessary for Yuba to make Water available for diversion by the Buyer under this Agreement.

D. Other Approvals by Buyer.

Except as otherwise addressed in this Agreement, the Buyer will be responsible for complying with State and Federal laws necessary for the Buyer to divert and use the Water made available under this Agreement. Pursuant to Section 24H of this Agreement, Yuba will provide reasonable assistance to the Buyer in the Buyer's actions to obtain any permits or approvals that may be necessary for the Buyer to divert and use Water that Yuba will make available under this Agreement.

18. Place of Use of Water.

Water made available under this Agreement will be not used outside of the place of use specified in the State Board order approving this delivery of Water from Yuba to the Buyer, without the written consent of Yuba.

19. Hold Harmless.

A. DWR will not assert that Yuba, its officers, agents or employees, are liable for damages of any nature whatsoever arising out of any actions or omissions by DWR, its officers, agents or employees, related to DWR's performance of this Agreement, where such liability is caused by an act, error or omission of DWR, its officers, agents or employees.

B. Yuba will not assert that DWR, its officers, agents or employees, are liable for damages of any nature whatsoever arising out of any actions or omissions by Yuba, its officers,

agents or employees, related to Yuba's performance of this Agreement, where such liability is caused by an act, error or omission of Yuba, its officers, agents or employees.

C. To the extent permitted by California law, Yuba will indemnify, defend and hold DWR and its officers, agents and employees safe and harmless from any and all claims, judgments, damages, penalties, costs, liabilities and losses (including without limitation, sums paid in settlement of claims, actual attorney's fees, paralegal fees, consultant fees, engineering fees, expert fees and any other professional fees) that arise from or are related in any way to Yuba's activities under this Agreement that are under the exclusive control of Yuba, including but not limited to the release, conveyance, use or distribution of water released by Yuba from the Yuba Project for purposes of this Agreement.

D. To the extent permitted by California law, DWR will indemnify, defend and hold Yuba and its officers, agents and employees safe and harmless from any and all claims, judgments, damages, penalties, costs, liabilities and losses (including without limitation, sums paid in settlement of claims, actual attorney's fees, paralegal fees, consultant fees, engineering fees, expert fees and any other professional fees) that arise from or are related in any way to DWR's activities under this Agreement that are under the exclusive control of DWR, including but not limited to the conveyance, use or distribution of water made available by Yuba from the Yuba Project for purposes of this Agreement.

E. Yuba and its officers, agents, employees and insurers will not be responsible for the quality of water made available by Yuba from the Yuba Project for purposes of this Agreement.

20. *Force Majeure Event.*

A. A *Force Majeure* Event will excuse or suspend performance as provided in this section for the duration of the *Force Majeure* Event. To the extent that *Force Majeure* Event prevents the Buyer from using the Water delivered by Yuba, then: (a) the Buyer will be excused from paying for Components 2 through 4 Water during the duration of the *Force Majeure* Event; and (b) Yuba will retain the payments received for Component 1 Water with no obligation to deliver this Component 1 Water again at some later time.

B. To the extent that a *Force Majeure* Event prevents Yuba from providing Components 1 through 4 Water, then: (a) Yuba's performance will be excused during the duration of the *Force Majeure* Event; (b) Yuba will not be required to refund payments for Component 1 Water; and (c) Yuba will deliver this Component 1 Water supply at some later time on a schedule that is acceptable to the Buyer and Yuba.

C. During a *Force Majeure* Event, each of the Parties will, to the extent practicable, take actions to minimize the impacts of the *Force Majeure* Event on the other Parties.

21. Regulatory Action.

In the event of a Regulatory Action during the term of this Agreement: (a) the affected Party will promptly notify the other Parties of the Regulatory Action and the manner in which it affects performance under this Agreement; and (b) the Parties will proceed under the process provided for in Section 22 ("Remedies and Dispute Resolution"), to the extent applicable. This section does not affect the other rights and remedies of the parties under this Agreement.

22. Remedies and Dispute Resolution.

A. Should any material disputes arise concerning any provision of this Agreement, or the rights and obligations of the Parties thereunder, including those involving possible termination or those that might cause the initiation of any administrative or judicial proceeding to enforce or interpret this Agreement, the Parties will present the issue to the Management Committee (which may request assistance from the Technical Committee) for a recommendation for resolving the dispute.

B. If the Process described in the preceding subsection fails to resolve the dispute within thirty days, the Parties will submit the dispute to a mediator who has experience in water-related disputes. The costs of any such mediation will be borne one-third each by the Parties. Initiation of this mediation process will be through written notice by one Party to the other Parties. The Parties reserve all of their other remedies that may be provided by law or equity in the event that such mediation fails to resolve a dispute. The Parties, in consultation with the mediator, will use their best efforts to resolve the dispute within thirty days. Under no circumstances, however, will mediation under this Section 22 result in a requirement that diminishes, limits or contravenes the discretion, authority or any delegated authority of the Director of DWR under State law.

C. If mediation fails to resolve the dispute, and prior to commencing any legal action to resolve the dispute, the Party proposing to commence legal action will provide the other Party thirty days' written notice of such action, provided that such notice will not be required where a delay in commencing an action would prejudice the interests of the Party that intends to file suit. During the thirty-day notice period, the Parties will continue to attempt to resolve the dispute.

23. Effect of this Agreement on other Matters.

A. As a Precedent.

Nothing in this Agreement is intended or will be construed as a precedent or other basis for any argument that the Parties have waived or compromised their rights that may be available under State or federal law, except as to matters addressed in this Agreement.

B. As to Water Rights.

The only rights granted to the Parties as a result of this Agreement are those expressly set forth in this Agreement. The providing of water by Yuba under this Agreement will not confer any appropriative, public trust or other right to water on any person or entity. Nothing in this Agreement is intended or will be construed to act as a forfeiture, diminution or impairment of any water right of Yuba. Consistent with the provisions of California Water Code sections 109, 475, 1011, 1014 through 1017, 1244 and 11961, the delivery of water under this Agreement will not be evidence of or used to demonstrate either the existence of surplus water after this Agreement expires, or the lack of beneficial use of the water supplies referred to in this Agreement, and the Parties will not contend otherwise. In accordance with Water Code section 1016, and other applicable provisions of California law, at the conclusion of the term of the water transfers provided for under this Agreement, all rights in, and the use of, the water supplies referred to in this Agreement will revert back to Yuba, and DWR or any beneficiary of this Agreement, will not do either of the following: (1) bring any claim for continuation of the water supply made available by this Agreement; or (2) claim any right to a continued supply of water made available under this Agreement, based on reliance, estoppel, intervening public use, prescription, water shortage emergency, or unforeseen or unforeseeable increases in demand, or any other cause.

C. As to the Phase 8 Settlement

Nothing contained in this Agreement affects the Parties' respective rights and obligations under the Short-Term Phase 8 Agreement. The Parties agree that water provided by Yuba under the Short-term Phase 8 Agreement will be accounted for and delivered on a higher priority than water delivered under this Agreement.

D. As to Termination of the EWA Program

1. DWR intends that Component 1 Water will be dedicated to the EWA, and that in the future, upon completion of environmental documentation for a long-term EWA, the EWA would be sized sufficiently to accommodate the proposed South Delta Improvement Program, including the proposal to increase the maximum diversion rate into Clifton Court Forebay for the SWP Bank's Pumping Plant. If the EWA terminates, DWR agrees that Component 1 Water remaining to be delivered under this Agreement will be managed annually, as follows: (a) Component 1 Water in any year will be used to enhance water supply reliability of the Delta export facilities by off-setting new mandatory restrictions imposed on the CVP and SWP, including those imposed by the federal court order in *NRDC v. Kempthorne,* or through a subsequent biological opinion for conservation or protection of fish, and (b) if any Component 1 Water remains after off-setting the restrictions set forth in subsection (a) above, then the remaining Component 1 Water will be used as determined by DWR in close coordination with the California Department of Fish and Game and consistent with the water supply reliability project requirements of the funding source

from which this water was purchased (Chapter 7(d) of Proposition 50, California Water Code Section 79550(d)).

2. Except as provided in the previous subsection, none of the rights and obligations of the Parties under this Agreement will be affected in the event that the EWA program terminates prior to the expiration of the term of this Agreement.

E. As to the Fisheries Agreement.

None of the rights and obligations of the Parties under this Agreement will be affected in the event that the Fisheries Agreement terminates prior to the expiration of the term of this Agreement.

F. As to the Application of Section 27 of the Federal Power Act.

Section 27 of the Federal Power Act limits the licensing authority of FERC with respect to a law regarding the control, appropriation, use or distribution of water used in irrigation or for municipal or other uses. The Parties, and the SWP and the San Luis & Delta-Mendota Water Authority, will not contend or bring any claim that any provision of this Agreement is a law regarding the control, appropriation, use or distribution of water used in irrigation or for municipal or industrial uses, as these terms are used in Section 27 of the Federal Power Act.

24. General Contracting Provisions.

A. Notices.

The time for providing any notices specified in this Agreement may be extended within the term of this Agreement with the consent of the Parties, confirmed in writing, without requiring an amendment to this Agreement. All notices and other communications required under this Agreement will be in writing, and will be deemed to have been duly given upon the date of service, if: (a) served personally on the Party to whom notice is to be given; (b) sent by electronic mail, and the Party to whom notice is to be given confirms receipt; or (c) on the third day after mailing, if mailed to the Party to whom notice is to be given by first-class mail, postage prepaid, and properly addressed to the designated representatives of the Parties set forth below. A Party may notify the other Parties in writing of a change in its designated representatives, without requiring an amendment to this Agreement.

DWR: Director
Department of Water Resources
1416 Ninth Street, Room 1115-1
P.O. Box 942836
Sacramento, CA 94236-0001

With Copy to:
Chief, State Water Project Analysis Office
1416 Ninth Street, Room 1620-A
P.O. Box 942836
Sacramento, CA 94236-0001

Yuba: General Manager
Yuba County Water Agency
1402 D Street
Marysville, CA 95901

B. Signatories' Authority.

The signatories to this Agreement represent that they have authority to execute this Agreement and to bind the Party on whose behalf they execute this Agreement. Yuba will provide to DWR a copy of a resolution or minute order authorizing execution of this Agreement.

C. Counterparts of this Agreement.

This Agreement may be signed in any number of counterparts by the Parties, each of which will be deemed to be an original, and all of which together will be deemed to one and the same instrument. This Agreement, if executed in counterparts, will be valid and binding on a party as if fully executed all in one copy.

D. Binding on Successors/Assignment.

This Agreement will bind and inure to the benefit of the respective successors and assigns of the Parties, except that, none of the obligations of the Parties set forth in this Agreement will be assigned without the prior, written approval of the other Parties, which approval will not unreasonably be withheld.

E. No Third-Party Beneficiaries, Except as Expressly Provided.

This Agreement will not be construed to create any third-party beneficiaries, except as set forth in this section. This Agreement is for the sole benefit of the Parties, their respective successors and assigns, and no other person or entity will be entitled to rely on or receive any benefit from this Agreement or any of its terms.

F. Amendments.

This Agreement may be amended or modified only by a subsequent written agreement

approved and executed by the Parties.

G. Opinions and Determinations.

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

H. Reasonable Cooperation.

The Parties will reasonably cooperate with each other, including the execution of all necessary documents and providing assistance in obtaining approvals and permits from regulatory agencies required to perform the obligations under this Agreement and to carry out the purpose and intent of this Agreement.

I. Construction and Interpretation.

This Agreement is entered into freely and voluntarily. This Agreement has been arrived at through negotiation, and each Party has had a full and fair opportunity to revise the terms of this Agreement. Consequently, the normal rule of construction that any ambiguities are to be resolved against the drafting party will not apply in construing or interpreting this Agreement.

J. Complete Contract.

This Agreement constitutes the sole, final, complete, exclusive and integrated expression and statement of the terms of this Agreement among the Parties concerning the subject matter, and supersedes all prior negotiations, representations or agreement, either oral or written, that may be related to the subject matter of this Agreement, except as to those other agreements that are expressly referred to in this Agreement.

K. Determination of Unenforceable Provisions.

If any term or provision of this Agreement is deemed invalid or unenforceable by any court of final jurisdiction, the Parties will meet and attempt to address this situation pursuant to the provisions of Section 22 ("Remedies and Dispute Resolution") of this Agreement.

L. Waiver.

The waiver at any time by a Party of its rights with respect to a default or other matter arising in connection with this Agreement will not be deemed a waiver with respect to any other

default or matter.

M. Time.

Time is of the essence in this Agreement. Any date specified in this Agreement may be changed with the written consent of the Parties.

N. Applicable Law.

This Agreement will be construed under and will be deemed to be governed by the laws of the United States and the State of California.

O. Venue.

Any appropriate County under California law will be venue for any state court litigation concerning the enforcement or interpretation of this Agreement.

P. Remedies Not Exclusive.

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

Q. Officials Not To Benefit.

No member or delegate to Congress, Resident Commissioner, or Federal or State official will be admitted to any share or part of this Agreement or to any benefit that may arise therefrom.

R. Standard Clauses.

Yuba will comply with the State of California, Department of Water Resources, Standard Clauses as shown on Exhibit 4 ("State of California, Department of Water Resources, Standard Clauses") to this Agreement.

S. Exhibits Incorporated.

Each exhibit to which reference is made is deemed incorporated in this Agreement, whether or not actually attached.

The foregoing is hereby agreed to by the Parties.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the date first written above.

Approved as to legal form
and sufficiency:

Chief Counsel
Department of Water Resources

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

Director
Department of Water Resources

YUBA COUNTY WATER AGENCY
A Political Subdivision of the
State of California

Attest:

Secretary
Yuba County Water Agency

By:
Chairman of the Board

List of Exhibits

Exhibit 1 **Scheduling and Accounting Principles**

Exhibit 2 **Reservoir Refill Accounting Provisions**

Exhibit 3 **Groundwater Substitution Transfer Monitoring and Operations**

Program

Exhibit 4 **State of California, Department of Water Resources, Standard Clauses**

EXHIBIT 1

Scheduling and Accounting Principles

OVERVIEW

Monitoring, measuring, and accounting of the water that will be transferred under the this Agreement can be generally described as consisting of two fundamental parts: (1) measuring the flows at the Marysville Gage resulting from increased releases from storage in New Bullards Bar Reservoir that are greater than the baseline, without-transfer flows; and (2) measuring the ability of the Projects and the EWA to apply these flows to beneficial uses. The amounts of increased releases will be determined by measuring the outflow of the Yuba River at the Marysville Gage, and by measuring groundwater substitution pumping associated with this Agreement. The Projects' ability to use the water will be determined by the ability of the Projects to export the water at the Projects' Delta pumping facilities or to put the water to other beneficial uses. That is, water accounted for as transfer water under this Exhibit will include Released Transfer Water that is deemed to be Delivered Transfer Water, as those terms are defined in this Exhibit.

1. DEFINITIONS

Terms used in this Exhibit have the same definitions as the definitions listed in Section 1 of this Agreement. When used in this Exhibit, the following terms have the following definitions:

"Accord Flows" mean the schedule of instream flows listed in Exhibit 1 of the Fisheries Agreement.
"**Accounting Year**" means January 1 to December 31.
"Agreement" means the "Agreement for the Long-Term Purchase of Water from Yuba County Water Agency by the Department of Water Resources."
"Balanced Conditions" mean the hydrologic condition of the Delta as defined in the November 24, 1986 "Agreement between the United States of America and the State of California for Coordinated Operations of the Central Valley Project and the State Water Project." ("COA")
"Baseline Conditions" mean the conditions deemed under this Exhibit to represent the conditions that would have occurred without implementation of this Agreement or the Fisheries Agreement. "Baseline Conditions" define the without-transfer conditions and would result in the Baseline Flows.
"Baseline Diversions" mean the diversions that are defined in section 2.3.1.1 of this exhibit.
"Baseline Flows" mean the flows that would have been present at the Marysville Gage under the Decision 1644 interim instream flow requirements and all other Baseline Conditions, without implementation of the Yuba River Accord.

"Baseline Storage" means the amount of water that would have been stored in New Bullards Bar Reservoir under Baseline Conditions.

"Baseline Storage Target" means the storage targets that are defined in section 2.4 of this exhibit.

"Carriage Water" means the water losses due to increased Delta outflow necessary to maintain baseline Delta salinity conditions as determined by DWR, that are associated with Delivered Transfer Water or Stored Released Transfer Water that is exported at the Projects' Delta pumping facilities.

"Delivered Transfer Water" means Released Transfer Water that is accounted as being exported by the Projects, or contributing to exports, as described in Section 5 of this exhibit.

"**Delta Export Facilities**" means the Banks and Jones pumping facilities as determined to be available for export by the Projects

"Flow Fluctuation Operations" means operations driven by flow fluctuation criteria rather than minimum flow requirements or storage operations.

"Groundwater Substitution Component" means the quantity of Released Transfer Water that Yuba makes available from releases from New Bullards Bar Reservoir as a result of Yuba's groundwater substitution pumping program, and that is not related to releases for the Storage Component of Released Transfer Water. Groundwater Substitution Component water will be made available under the Conjunctive Use Agreements by Member Units forgoing surface water deliveries and instead pumping groundwater as a replacement water supply for local irrigation needs.

"Marysville Gage" refers to USGS Gaging Station No. 11421000, Yuba River near Marysville.

"Minimum Flows" is the required minimum instream flows specified in Decision 1644 page 176 table titled "Interim Instream Flow Requirements"

"Negative Transfer Flows" means the additional amount of flows above the Accord Flows that would have been released as part of a Baseline Flows when the Baseline Conditions Decision 1644 interim instream flow requirement is greater than the Accord Flows. "Negative Transfer Flows" are further defined in Section 4.4 of this exhibit.

"North Yuba Index" means the index used to determine the applicable Fisheries Agreement flow schedule for the Lower Yuba River. This index is defined in Exhibit 4 of the Fisheries Agreement.

"Percent Inflow Diversion Loss" means the amount of Released Transfer Water that is lost due to the restrictions imposed by the "maximum percent of Delta inflow diverted" standard as described in the SWRCB Revised Decision 1641 when that standard is generally 35% from February 1 to April 30.

"Projects" mean the CVP and the SWP.

"Refill" is a condition of reduced releases from New Bullards Bar Reservoir as compared with the releases that would occur under Baseline Conditions. These reduced releases could result from diversions to storage to fill storage space evacuated as a result of releases that created the Storage Component of Released Transfer Water.

"Released Transfer Water" means the average daily flows measured at the Marysville Gage that are greater than the Baseline Flows. "Released Transfer Water" is further described in Section 4.2 of this exhibit.

"Section" refers to sections of this Exhibit, unless otherwise stated.

"**Smartville Gage**" refers to USGS Gaging Station No. 11418000, Yuba River below Englebright Dam, near Smartville

"Storage Component" means the quantity of Released Transfer Water that Yuba makes available from storage releases from New Bullards Bar Reservoir, and which storage is not a result of storage releases resulting from Groundwater Substitution Component operations.

"Stored Released Transfer Water" means the stored water in Project upstream reservoirs. "Stored Released Transfer Water" is further defined in Section 4.3 of this Exhibit.

"Total Uncontrolled Flows" mean the total amount of flows entering Englebright Reservoir, other than from releases from the New Colgate Powerhouse, plus flows from Deer Creek and Dry Creek into the lower Yuba River downstream of Englebright Reservoir.

2. BASELINE CONDITIONS

Baseline Conditions are the controlling constraints and criteria for operation of the Yuba Project that determine Baseline Flows for the accounting of Released Transfer Water during the term of this Agreement. Baseline Conditions include the following:

2.1. **Regulatory Instream Flow Requirements:**

2.1.1. Decision 1644 interim instream flow requirements.

2.1.2. FERC License 2246 instream flow requirement of 400 cfs at the Marysville Gage (below Daguerre Point Dam) for the period of October 1-14, including the dry year reductions of this flow requirement that are authorized in the License.

2.1.3. Flow reduction restrictions required by FERC License 2246.

2.1.4. Flow fluctuation restrictions specified in the November 22, 2005 FERC Order Modifying and Approving Amendment of License (at page 11 of that order).

2.2. **Operational Agreements:**

2.2.1. The PG&E Power Contract, as modified by the July 16, 2002 Agreement Concerning Power Purchase Contract of 1966 and Consolidated Operations of the Narrows I and

Narrows II Powerhouses. The 2002 Agreement removed the generation quota terms of the PG&E Power Contract for the months of January to June.

2.3. **Water Supply Agreements:**

2.3.1. Water supply agreements between Yuba and the following Member Units: Browns Valley Irrigation District, Hallwood Irrigation Company, Cordua Irrigation District, Ramirez Water District, Brophy Water District, South Yuba Water District, Dry Creek Mutual Water Company and Wheatland Water District.

2.3.1.1. Baseline Diversions that are made under the agreements listed in Section 2.3.1 are the measured diversions as reported by Yuba, including any reduced diversions that are made to provide water for the Groundwater Substitution Component, and including other reduced diversions that are implemented as part of defined water efficiency or conservation programs or projects.

2.4. **Baseline Storage Target Line** is a graphical line of the maximum storage levels during the year at which Yuba would normally operate New Bullards Bar Reservoir under Baseline Conditions.

2.4.1. These levels are:

- September 30: 705,000 acre-ft;
- October 1 to October 31: linearly ramped from 705,000 acre-ft to 700,000 acre-ft;
- November 1 to February 15: 700,000 acre-ft;
- February 16 through March 31: linearly ramped from 700,000 acre-feet to 796,000 acre-feet;
- April 1 through April 30: linearly ramped from 796,000 acre-feet to 896,000 acre-feet;
- May 1 through May 31: linearly ramped from 896,000 acre-feet to 966,000 acre-feet; and
- June 1 through June 30: 966,000 acre-feet.
- July 1 to September 29: no fixed Baseline Storage Target amounts are provided for this period, because the maximum storage levels during this period at which Yuba would normally operate New Bullards Bar Reservoir under Baseline Conditions are governed by the runoff hydrology conditions of the Yuba River.

3. BASELINE FLOWS DETERMINATION

3.1. Baseline Flows will be determined as mean daily flows in cubic feet per second (cfs), with a separate determination for each day of the accounting period. Baseline operations will be

characterized by four categories of operation, each of which are governed by the overriding operational constraint for the applicable time period. The four categories of operation are: (1) Operation to Minimum Flows; (2) Operation to Baseline Storage Target release; (3) Transitional Operations; and (4) Flow Fluctuation Restricted Operations. The four categories and the calculation to determine the Baseline Flows under each category of operation as well as a general description of when each category will occur are described below. Once one of the four categories of operation has been determined to be in effect, the procedures of this section will be used to determine the resulting Baseline Flows that would have occurred at the Marysville Gage. Yuba will prepare a guideline description of baseline operations that can be used by the Parties and others to understand the operations of the Yuba Project that would occur under Baseline Conditions.

3.2. Due to the complex nature of the controlling operational criteria for the Yuba Project and the hydrology of the Yuba River watershed, there may be periods when conditions will not allow for use of the accounting procedures listed for any of these four categories of operations to determine the Baseline Flows. Technical representatives from each Party will work together to attempt to resolve the transfer accounting for such periods. If the Parties cannot agree upon the accounting for such periods, then the dispute resolution process of section 10.2 of this exhibit will be followed.

3.3. **Operation to Minimum Flows** is the controlling category of operation when releases under Baseline Conditions would have been made to maintain the minimum required flows at the Marysville Gage or at the Smartville Gage, whichever is the controlling location. The flow requirements listed in the table titled "Interim Instream Flow Requirements" on page 176 of Decision 1644 are the regulatory minimum required flows under Baseline Conditions and are the Baseline Flows that would occur when this category of operation is controlling.

3.3.1. **Determination of When Operation to Minimum Flows Would Occur -**

3.3.1.1. Beginning October 1, operations under Baseline Conditions will be considered to be at Minimum Flows unless or until there is a need to increase releases to manage storage levels at or below the Baseline Storage Targets. In the late winter and spring, forecasted runoff and resulting New Bullards Bar Reservoir storage govern when releases would exceed the minimum flows. For the winter and spring, if storage in New Bullards Bar Reservoir would have been at or above the Baseline Storage Targets with continued operations to minimum flows then a transition to releases above the minimum flow requirements would occur.

3.3.1.2. For the months of March through September, if, with releases from New Bullards Bar Reservoir to meet the Decision 1644 Interim Instream Flow Requirements and

Baseline Diversions, the end-of-September Baseline Storage Target in New Bullards Bar Reservoir would have been at or below 705,000 acre-feet, then the Baseline Flows for this period will be the Decision 1644 Interim Instream Flow Requirements.

3.3.2. **Calculation of Baseline Flow under Operations to Minimum Flows.** If operations to minimum flows has been determined to occur as described in Section 3.3 then Baseline Flows will be calculated as follows:

3.3.2.1. Calculate the River Balance – The River Balance includes intervening accretions or depletions of the Yuba River between the Smartville Gage and the Marysville Gage. The River Balance equals the measured flow at the Marysville Gage plus the measured Yuba diversions minus the measured flow at the Smartville Gage

3.3.2.2. Calculate the Baseline Flow – The Baseline Flows equal the greater of the required Decision 1644 Interim Instream Flow Requirement at the Smartville Gage minus the sum of the measured Yuba diversion plus the River Balance or the required Decision 1644 Interim Instream Flow Requirement at the Marysville Gage plus any adjustments for Total Uncontrolled Flows that would not have been offset by a reduction in releases from Englebright Reservoir. The adjustment of Total Uncontrolled Flows will include short-duration increases in releases from the Narrows II Powerhouse due to short-term increases in power demands, power outages resulting in loss of control of releases from Englebright Dam and short duration uncontrolled runoff downstream of Englebright Dam that occurs when there is no Decision 1644 Interim Instream Flow Requirement at the Smartville Gage.

3.4. Operations to Target Storage Release

3.4.1. For all times of the year, Operations to Target Storage Release is the controlling category of operation if operation to Minimum Flows would result in New Bullards Bar Reservoir storage above the Baseline Storage Target. If Operations to Target Storage Release would have occurred, then the Baseline Flow is the rate of release that would have been needed to meet the monthly Baseline Storage Target amount in New Bullards Bar Reservoir.

3.4.2. In the months of December through March, forecasts of future inflow and actual inflow are used to develop release decisions. During these months, operations are to

manage storage to meet the springtime Baseline Storage Target, while avoiding spills of water from New Bullards Bar Reservoir.

3.4.3. If the end-of-September storage in New Bullards Bar Reservoir under Baseline Conditions would have been above 705,000 acre-feet with releases from New Bullards Bar Reservoir minimized to meet the Decision 1644 Interim Instream Flow Requirements and diversions, then the Baseline Flows will be the flow rate schedule that would have been needed to release sufficient water from New Bullards Bar Reservoir to meet an end-of-September storage of 705,000 acre-feet.

3.4.4. The accounting in wetter years in the summer period is based on reaching storage in New Bullards Bar Reservoir on September 30 as described in and subject to the provisions above. The water storage volume in New Bullards Bar Reservoir is affected by natural inflow, and the scheduled release of water from New Bullards Bar Reservoir is predicated on an estimate of this inflow. Because the release of water to achieve the target storage is relatively fixed as of mid-summer, Yuba and the Projects may revise the target storage volume in New Bullards Bar Reservoir if mutual agreement is reached.

3.5. **Transition Operations** would have occurred when Baseline Releases would have previously been governed by either Operation to Minimum Flows or Operation to Target Storage Release and the operational constraint would have shifted to the other type of operation. Under this condition, a period of transition would have occurred and flows would have been based on the specific conditions at that time, including actual runoff, forecasts of runoff, and planned operations. Because each circumstance of Transition Operations would have been different, Yuba will prepare forecasted Baseline Flows for the transition time period and provide supporting data to show why the Baseline Flows would have been expected to have occurred. Maximum hourly and daily rates of flow change are prescribed in FERC License 2246 and the "November 22, 2005 FERC Order Modifying and Approving Amendment of License" for the Baseline Flows operations.

3.6. **Flow Fluctuation Operations** would have occurred when the FERC License 2246 restriction on flow reductions in the months of October to March, or the restriction on flow reductions in the November 22, 2005 FERC Order Modifying and Approving Amendment of License would have required flows to be maintained above the minimum flows. Flow Fluctuation Operations would have been managed the same as Operations for Minimum Flows except that the minimum instream flow requirement would be prescribed by the flow reduction restrictions in FERC License 2246 or the flow fluctuation restrictions in the November 22, 2005 FERC Order Modifying and Approving Amendment of License, rather

than the Decision 1644 Interim Instream Flow Requirements. As early as practical, Yuba will provide the minimum allowable flows for flow fluctuation operations as the Baseline Flows to DWR, along with an explanation of the determination of these Baseline Flows.

3.7. **Fishery Study Flows** - The Fishery Agreement calls for the development of fishery studies. Some of the studies to be conducted could involve fluctuation of flows during some periods. If a defined flow release schedule is planned as part of a fishery study administered by Yuba or the River Management Team (a group defined in the Fisheries Agreement) under the Fisheries Agreement, then these flows in this schedule will not be part of Baseline Flows and, if all other aspects of this exhibit are satisfied, then the amounts of these flows that exceed Baseline Flows will be accounted as Released Transfer Water. Any reduced releases as part of a fishery study will be accounted as a Negative Transfer Flow if the conditions of Section 4.4 of this exhibit Negative Transfer Flow are met. At a minimum of 14 days prior to the start of any such study, and as early as possible, Yuba will provide notice of any Fishery Study Flows to DWR.

3.8. **Baseline Storage** -Yuba will use the Baseline Flow amounts to determine the daily storage in New Bullards Bar Reservoir that would have occurred under Baseline Conditions. The calculation of Baseline Storage will use the actual inflows into New Bullards Bar Reservoir and Total Uncontrolled Flows into the lower Yuba River, along with a daily calculation of the releases from New Bullards Bar Reservoir that would have been made to meet the Baseline Flows, to determine the daily Baseline Storage amount. The Baseline Storage amount will be used to calculate the Base Transfer amount for Refill accounting in **Exhibit 2** of this Agreement.

4. TRANSFER WATER DELIVERY AND FLOW MEASUREMENT

4.1. **Point of Measurement and Delivery** - The point of delivery and the point of measurement of Released Transfer Water, and the point for determination of Baseline Flows, all will be at the Marysville Gage. The flows used for calculating Released Transfer Water and Baseline Flows will be mean-daily flows in cfs.

4.2. **Released Transfer Water** will be the amount of the actual mean-daily flow that has been measured at the Marysville Gage minus the mean daily Baseline Flows for the same day. The mean daily Baseline Flow will be determined according to the methods described in Section 3 of this exhibit.

4.3. **Stored Released Transfer Water** is water that has been accounted for as Released Transfer Water and that results in increased storage in an upstream Project reservoir (that is, water that is "backed into storage"). Released Transfer water will be deemed to have been stored

in an upstream Project reservoir when the Delta is in Balanced Conditions, there is no available pumping capacity at Project Delta pumping facilities, and releases from Project storage reservoirs would have been greater in the absence of Released Transfer Water. The incrementally greater Project release necessary under Baseline Conditions will be accounted for as Stored Released Transfer Water in Project storage. This accounting of Stored Released Transfer Water will be kept to determine whether Stored Released Transfer Water can subsequently be released from Project storage and exported by the Projects under Section 5.5 of this exhibit, and thus be accounted for as Delivered Transfer Water. Every effort will be made to account for Stored Released Transfer Water as backing into Oroville Reservoir as a first preference. This will necessitate an adjustment in the COA between the two Projects.

4.4. **Negative Transfer Flows** – During certain periods, the amount of the actual measured flow under Section 4.1 of this exhibit may be lower than the applicable Decision 1644 Interim Instream Flow Requirement. During these periods, the Baseline Flows will be the applicable Decision 1644 Interim Instream Flow Requirement. During these periods, the amount of the applicable Decision 1644 Interim Instream Flow Requirement minus the measured flow under Section 4.1 of this exhibit will be accounted for as a Negative Transfer Flow. If a Negative Transfer Flow occurs on a day when all or a portion of the Negative Transfer Flow amount could have been accounted for as Delivered Transfer Water as described in Section 5.5 of this exhibit, then this amount will be deducted from the total Delivered Transfer Water for the Water Accounting Year in which the Negative Transfer Flow occurred.

4.5. **Groundwater Substitution Component Flow** – Released Transfer Water may be fully or partially derived from Groundwater Substitution Component water. **Exhibit 3** of this Agreement describes the process that will be used to determine the planned amount of Groundwater Substitution Component water that will be provided each year and the monitoring and reporting that will be conducted by Yuba and participating Member Units for Groundwater Substitution Component operations.

4.5.1. Delivery and Measurement – Groundwater Substitution Component water will be delivered at the Marysville Gage, and measured as Released Transfer Water under Section 4.2 of this exhibit.

4.5.2. Water released as Groundwater Substitution Component water will not be included in the transfer amount for Refill accounting in **Exhibit 2** of this Agreement.

4.5.3. The total amount of Released Transfer Water that will be designated as Groundwater Substitution Component water will be limited to the amount of groundwater pumping that is measured by the procedures described in **Exhibit 3** of this Agreement.

5. DETERMINATION OF DELIVERED TRANSFER WATER

5.1. Delivered Transfer Water may only occur when the Delta is determined by DWR to be in Balanced Conditions.

5.2. For this Agreement, it is assumed that Released Transfer Water measured at the Marysville Gage will reach the Projects' Delta export pumps two days after the date of measurement at the Marysville Gage.

5.3. For this Agreement, Released Transfer Water used as Carriage Water or used as Delta outflow when the E/I ratio is controlling in the time period of July 1 to January 31 by the Projects will be accounted as Delivered Transfer Water as described in Section 5.11 of this exhibit. For this Agreement, Percent Inflow Diversion Loss will not be accounted as Delivered Transfer Water.

5.4. For this Agreement, it is assumed that there will be no conveyance losses between the Marysville Gage and the Projects' Delta pumping facilities.

5.5. For each day that Released Transfer Water is accounted for under Section 4.2 of this exhibit, Stored Released Transfer Water accounted for under Section 4.3 of this exhibit is released from Project storage, a determination will be made, utilizing information provided by DWR that is described in Section 5.11 of this exhibit, regarding whether or not there was capacity available at the Projects' Delta export facilities.

5.6. Stored Released Transfer Water will be released from Project storage only if capacity at the Projects' Delta pumping facilities is available unless the water "spills" from Project storage before such export capacity becomes available and therefore will not be accounted for as Delivered Transfer Water.

5.7. The lesser of the following two amounts will be accounted for as Delivered Transfer Water if DWR has determined that capacity is available at the Delta export facilities as described in Section 5.11.

5.7.1. The Released Transfer Water amount determined under Section 4.2 of this exhibit, or

5.7.2. The incremental increase in exports that occurs as a result of Released Transfer Water during a period when Percent Inflow Diversion Loss is occurring.

5.8. For each day that there are Negative Transfer Flows as accounted for under Section 4.4 of this exhibit, a determination will be made regarding the amount of reduced Delta exports or

increased Project releases that resulted from the Negative Transfer Flow. A Negative Transfer Flow will be accounted for as a debit to the total amount of Stored Released Transfer Water if the effect of the Negative Transfer Flow is that it causes an increase in Project releases or reduces Delta exports.

5.9. Some or all of the Stored Released Transfer Water will be deemed to have been spilled from Project reservoir storage and will be debited from the account described in Section 4.3 of this exhibit, if the Project reservoir in which the Stored Released Transfer Water is stored makes flood control releases. The debit amount will equal the actual amount of Stored Released Transfer Water spilled, or the total amount of Stored Released Transfer Water, whichever is less.

5.10. Along with the accounting of Delivered Transfer Water, Yuba will maintain an accounting of the Base Transfer amount for Refill accounting. The Base Transfer amount for refill accounting will be calculated as the difference in volume of actual New Bullards Bar Reservoir storage and the Baseline Storage that is directly attributable to the release of Delivered Transfer Water from New Bullards Bar Reservoir storage.

5.11. DWR will make every effort to export Released Transfer Water and Stored Yuba Water based on the available export capacity at the Projects' Delta pumping facilities, as determined by DWR, which includes a determination of capacity available after delivery of SWP water and water for regulatory, water right and contractual obligations.

6. PROCEDURES FOR ACCOUNTING OF BASELINE FLOWS AND TRANSFER AMOUNTS

6.1. The Water Accounting Year and provisions of this Agreement pertaining to notice and invoicing for Delivered Transfer Water will govern the timing of transfer accounting.

6.2. **Calculation of Forecasted Baseline Flows.** Yuba will calculate a preliminary forecast of Baseline Flows, as described in Section 3 of this exhibit on a monthly basis unless more frequent forecasted Baseline Flows are requested by DWR or provided by Yuba. The forecasted Baseline Flows along with forecasted flows will be used by DWR to plan Project operations to export Released Transfer Water. The preliminary forecast of the Baseline Flows will be made using forecasted hydrologic conditions for the month, based on Yuba River unimpaired flows forecasted in the most-recent DWR Bulletin 120 and any updates. Within 14 days after the end of the month, Yuba will provide DWR with its draft calculations of Baseline Flows.

6.2.1. Yuba will provide preliminary and draft final calculations of Baseline Flows to DWR for its review and concurrence. The calculation of preliminary Baseline Flows will be

used to predict the amount and timing of Released Transfer Water that will be generated for the upcoming period. During that period, Yuba may update the preliminary calculation of Baseline Flows as changes in hydrologic conditions affect the accuracy of the calculation. Yuba will provide to DWR all requested backup information and calculations, excluding any models that were the bases of the calculation of Baseline Flows, so that DWR may verify the calculation. If DWR concurs with the preliminary calculation of Baseline Flows, then such preliminary Baseline Flows will be used in coordinating operations and for any initial allocation of Released Transfer Water to Components 1, 2, 3 and 4 Water as described in Section 7 of this exhibit. Yuba will also provide a calculation of Baseline Storage for Refill accounting (**Exhibit 2**) and comparison with the Baseline Storage Target Line.

6.2.2. Due to the delayed release of final USGS reporting of flows at the Marysville Gage, Yuba's transfer accounting will use the mean-daily flows as reported by Yuba to the USGS. DWR will be given timely notice if this information subsequently changes due to re-rating or shifts in the Marysville Gage, as reported by Yuba to the USGS.

6.3. **Calculation of Final Baseline Flows and Delivered Transfer Water Amount.** At the time that Yuba develops a preliminary estimate of Baseline Flows and provides it to DWR, Yuba also will develop and provide to DWR a preliminary release schedule and forecast of daily Released Transfer Water. Yuba will update the release schedule and resulting forecast of daily Released Transfer Water no less than once per month, unless an alternative time period is agreed to by the Parties. Within fourteen days after the end of each month or within 14 days of an export period, Yuba will calculate a draft final Transfer Accounting under Section 6.3.5 of this exhibit. Section 11 of this exhibit describes the scheduling and coordination of sharing operational information.

6.3.1. Because of the variability of hydrologic conditions, and because of the uncertainty regarding whether or not DWR will call for option water in some periods, Yuba will prepare a matrix of one or more forecasted Baseline Flows, one or more release schedules and the resulting estimated quantities of Released Transfer Water. Yuba will provide indications of the relative probability of each Baseline Flows scenario that is provided in the matrix.

6.3.2. DWR will notify Yuba periodically, as information is available, when Project conditions are such that any of the forecasted Released Transfer Water may not be exported.

6.3.3. Calculation of the amount of Released Transfer Water will utilize the determination of export capacity and the Percent Inflow Diversion Loss provided to Yuba by DWR no

later than 14 days after the end of the assumed export period. An export period ends following a verifiable point in time at which Baseline Flows can be verified against the Baseline Storage Target Line as described in Section 3 of this exhibit.

6.3.4. If DWR concurs with Yuba's draft final calculation of Baseline Flows, then it will become the final Baseline Flows, and will be used for all final transfer accounting for the corresponding period.

6.3.5. Along with the calculation of the draft final Baseline Flows, Yuba will also calculate and submit to DWR a draft final accounting of the amounts of Components 1, 2, 3 and 4 Water that were Delivered Transfer Water during the accounting period. This draft final accounting will include entries for the following:

(a) Mean daily flow at the Marysville Gage, as measured according to Section 4 of this exhibit;

(b) Daily schedule of resulting Released Transfer Water according to Section 4.2 of this exhibit and accounting for Negative Transfer Flows under Section 4.4 of this exhibit;

(c) Calculation of Delivered Transfer Water under Section 5 of this exhibit, including any necessary reductions for Negative Transfer Flows and an accountings of Stored Released Transfer Water delivered and Stored Released Transfer Water remaining in storage, using the export capacities submitted DWR;

(d) Calculation of the amounts of Components 1, 2, 3 and 4 Water that were Delivered Transfer Water, as calculated under Section 7 of this exhibit; and

(e) A breakdown of the Storage Component and the Groundwater Substitution Component of the Delivered Transfer Water for the period.

(f) A calculation of the amount of reduced storage in New Bullards Bar Reservoir that resulted from releases of Storage Component Delivered Transfer Water. The resulting amount of reduced storage calculated at the start of the Refill Period will be the Base Transfer amount used for Refill accounting as described in **Exhibit 2.**

7. ACCOUNTING FOR COMPONENTS OF TRANSFER WATER

7.1. Water that has been determined to be Delivered Transfer Water will be credited towards one of four components of Water: Component 1, Component 2, Component 3, or Component 4.

7.2. Delivered Transfer Water will be credited to one of these four components of Water in the following priorities:

7.2.1. The first 60,000 acre-ft of Delivered Transfer Water that also is Storage Component water in each Water Accounting Year will be credited to Component 1 Water.

7.2.2. In Dry and Critical Water Years, the first 60,000 acre-ft of Storage Component water will be credited to Component 1 Water, and the next 15,000 acre-ft in Dry Water Years,[1] and 30,000 acre-ft in Critical Water Years, of Storage Component water will be credited to Component 2 Water. If the total amount of Delivered Transfer Water that also is Storage Component water in any Water Accounting Year is less than the total commitment for Component 1 Water (i.e., 60,000 acre-ft), Yuba will not be obligated to provide Groundwater Substitution Water to complete delivery of the 60,000 acre-feet. If the total amount of Delivered Transfer Water from the Storage Component water in a Water Accounting Year is less than the total commitment for Component 2 Water (i.e., 15,000 acre-ft in Dry Water Years and 30,000 acre-ft in Critical Water Years), then Yuba will provide Groundwater Substitution Component water, but subject to the provisions of **Exhibit 3** of this Agreement, to complete the balance of Yuba's commitment for Component 2 Water.

7.2.3. In years when Yuba has a commitment to provide 40,000 acre-ft of Component 3 Water, after Component 1 Water and Component 2 Water (if any is required) is fully accounted for, any remaining Storage Component water will be credited as Component 3 Water, and then any remaining unfulfilled commitment for Component 3 Water will be provided and accounted from Groundwater Substitution Component water, but subject to the provisions of **Exhibit 3** of this Agreement.

7.2.4. Any remaining balance of Storage Component water, and then Groundwater Substitution Component water, will be credited as Component 4 Water after all other commitments of Water have been credited from the total Delivered Transfer Water for the Water Accounting Year.

7.3. In years when there is no commitment for Component 2 or Component 3 Water, any Delivered Transfer Water that also is Storage Component water, and that exceeds the 60,000 acre-ft of the Component 1 Water obligation, will first be credited to repay any accrued deficit in Component 1 Water deliveries and then to repay any accrued deficit in Component 2 and Component 3 Water deliveries and finally accounted as Component 4 Water, subject to the provisions of Section 5A2 of this Agreement.

7.4. **Holding Account.** If Delivered Transfer Water Storage Component has been credited as Component 4 Water under Section 7.2.4 or Section 7.3 of this exhibit, and if DWR has not

[1] These water-year types are defined by the Sacramento Valley Index in SWRCB Decision 1641.

committed to pay for some or all of the credited Component 4 Water under the option provisions of this Agreement, then the uncommitted portion of Component 4 Water will be addressed in the following manner:

7.4.1. By September 30 of any year where there is Delivered Transfer Water that is uncommitted to one of the four Components of water, Yuba will notify DWR of the availability of the uncommitted Delivered Transfer Water for purchase as Component 3 or Component 4 water prior to accounting for the water in the Holding Account.

7.4.2. Water credited to the Holding Account will be available first as the following year's Component 3 or 4 Water and second as a credit to the following year's Component 1 Water, provided that the Holding Account water is not spilled from San Luis reservoir. The applicable purchase price for the water will be determined by the Water Year in which the water is accounted for as Delivered Transfer Water, even if the credit is applied in a subsequent year.

7.5. **Component 1 Water Accounting Deficit**. There are two conditions under which an account deficit of Component 1 Water can occur: (1) in very wet years, Yuba may release sufficient Released Transfer Water to provide the full required amount of Component 1 Water, but due to Delta conditions, some or all of this Released Transfer Water may not be able to be accounted for as Delivered Transfer Water under Section 5 of this exhibit. In such years, the amount of Delivered Transfer Water will be less than Yuba's obligation to provide Component 1 during that Water Accounting Year; and (2) in addition, under section 7.2.2 of this exhibit, there may be years in which there are less than 60,000 acre-feet of Storage Component Water available to meet Yuba's Component 1 obligation. In both of these cases, the amount of outstanding Component 1 Water will be noted as a Component 1 Water account deficit for that Water Accounting Year, and Yuba will be obligated to provide the remaining amount of Component 1 Water in a subsequent Water Accounting Year, subject to the provisions of Section 5A2 of this Agreement.

7.6 **Component 1 Water Makeup Provisions.** Yuba will apply Storage Component water in excess of the 60,000 acre-foot amount of Component 1 Water to be delivered during the current Water Accounting Year to any deficit in the Component 1 Water account from a previous year, as long as the current Water Year type is not a Dry or Critical Water Year. If the current Water Year type is a Dry or Critical Water Year, then Storage Component water may be applied to a deficit in the Component 1 Water account at Yuba's discretion, subject to the provisions of Section 5A2 of this Agreement.

7.7 **Components 2 and 3 Water Accounting Deficit and Makeup Provisions.** A deficit in providing Component 2 and/or Component 3 Water could occur if there is not enough Storage Component water accounted for as Delivered Transfer Water to meet the total obligations to provide Components 1, 2 and 3 Water, and due to the provisions of **Exhibit 3** for determining the amount of Groundwater Substitution Component water that may be provided, the amount of Groundwater Substitution Component water is not sufficient to make up the entire remainder of the commitment to provide Components 1, 2 and 3 Water. If there is a deficit in Component 2 or Component 3 Water the Parties will meet and confer under Section 22 ("Remedies and Dispute Resolution") of this Agreement to determine what actions should be taken.

8. CONFERENCE YEAR ACCOUNTING

8.1. No Negative Transfer Flows amounts will be accounted for in a Conference Year if there is no Delivered Transfer Water.

8.2. In a Conference Year, the obligation to provide Component 1 Water may be suspended by Yuba, and instead Yuba will incur a deficit in its obligation to provide Component 1 Water Delivered Transfer Water that must be repaid in a non-Conference Year as provided in this Agreement.

8.3. There will be no obligation to provide Component 2 or Component 3 Water in a Conference Year.

8.4. Makeup provisions and repayment of Refill provisions of the accounting will be suspended during a Conference Year. Any amounts of water in Holding Accounts or repayment amounts will be carried forward to the next year non-Conference Year following a Conference Year.

8.5. If Yuba and DWR agree to transfer some amount of Water in a Conference Year, then the Conference Year Baseline Conditions will be agreed to by Yuba and DWR.

8.6. Transfer of Component 4 Water may occur in a Conference Year only if Negative Transfer Flows and Refill impacts are accounted for and, in the case of Refill impacts, repaid first.

9. GROUNDWATER SUBSTITUTION COMPONENT WATER

9.1. Yuba, at Yuba's sole discretion, may decide to enter into agreements with participating Member Units under which the participating Member Units will arrange for their respective water users to reduce their use of surface water diversions by amounts to be determined by Yuba and the participating Member Units during the Water Accounting Year, and to pump equivalent amounts of groundwater from approved wells as replacement supplies for the

Groundwater Substitution Component of Released Transfer Water. Yuba will provide DWR with one or more lists of the locations of the wells that may be pumped for the Groundwater Substitution Component. In no case will groundwater pumping commence from a well for the Groundwater Substitution Component before approval of the well by DWR. Wells that are located within two miles of the Yuba River or the Feather River will be subject to review and approval by DWR. All other listed wells will be approved by DWR upon demonstration by Yuba that all required local permits for these wells have been obtained. DWR will review the list of wells, their locations and any other pertinent information provided by Yuba and the participating Member Units, and will notify Yuba and the participating Member Units within ten working days after the submittal of a list by Yuba of any well that DWR reasonably determines is not acceptable for pumping under this Agreement, and will inform Yuba and the Member Unit in which the well is located of the basis for the determination by DWR. Upon receipt of supplemental information from Yuba or the Member Unit in which the well is located, DWR may reconsider its refusal to allow the well to provide Groundwater Substitution Component water and reverse its determination. Groundwater pumped for the Groundwater Substitution Component must be put to reasonable use for irrigation on lands that otherwise would have been served with surface water within the participating Member Unit's service area between March 1 and December 31.

9.2. Yuba will comply with the Groundwater Monitoring, Reporting and Operations Program, which is **Exhibit 3** to this Agreement.

9.3. Yuba will ensure that flow-measuring devices are acquired, installed and maintained to measure the quantities of groundwater actually being pumped for the Groundwater Substitution Component from wells identified in Section 9.1 of this exhibit. Yuba and the participating Member Units will be responsible for the distribution of water pumped under this Agreement within each participating Member Unit's boundaries. The Projects will not be responsible for any costs of installing, operating or maintaining groundwater pumping facilities or flow-measuring devices, or for any costs of conveying groundwater pumped to places of use within the participating Member Units' service areas pursuant to this Agreement. By the fifteenth day of every other month, Yuba will provide a report to DWR of the quantities of groundwater pumped from each well for the Groundwater Substitution Component during the previous reporting period under this Agreement.

9.4. Yuba will make arrangements for DWR and its representatives to have access to facilities and records of Yuba and its participating Member Units to the extent reasonably necessary to verify that the groundwater pumping, the management of such pumping and the

implementation of the Groundwater Monitoring and Reporting Program for the Groundwater Substitution Component meet the requirements of Section 9 of this exhibit.

10. ACCOUNTING PREPARATION AND NOTIFICATIONS

10.1. **Accounting preparation for invoicing** - Yuba will prepare a draft accounting of the quantities of Released Transfer Water and the Delivered Transfer Water, utilizing information provided by DWR, as described in Section 6 of this exhibit, and Yuba will submit these calculations in a standard form to be developed by the Parties for review by the Technical Committee according to the schedules set forth in this Agreement. The Technical Committee will provide written notification to Yuba and DWR within 20 days of receipt of the Transfer Accounting from Yuba whether it agrees with the accounting. If the Technical Committee agrees with the accounting, or if there has been no written notification by the 20th day, then Yuba will submit invoices to DWR as provided in this Agreement.

10.2. **Disputes on accounting amounts** – If there is a dispute between the Parties regarding accounting, then the Technical Committee will first meet and attempt to resolve the dispute, and submit the disputed accounting for final resolution by the Management Committee. For accounting disputes only, if the dispute cannot be resolved by the Management Committee, then the Parties will resolve the accounting dispute as provided in Section 22 ("Remedies and Dispute Resolution") of this Agreement.

10.3. **Maintaining Records of Accounting and Accounts** – Yuba will maintain a set of records for all accountings, and all back-up materials used to prepare the accountings, at Yuba's offices, and Yuba will make these records available to DWR upon request during normal business hours. DWR will maintain records of DWR's determination of Delta conditions and Project export capacity as described in Section 6.3.2, and make these records available to Yuba upon request during normal business hours.

11. FORECASTING AND EXCHANGE OF INFORMATION FOR TRANSFER

11.1. Yuba and DWR will exchange operations forecasts and other data deemed useful for purposes of enhancing the usefulness of the water to be made available under this Agreement. The forecasts will identify and substantiate the quantities and timing of forecasted transfer flows over a range of possible hydrologic conditions, and identify forecasted periods of Balanced Conditions and water allocations for the CVP and SWP. Additionally, the operations forecasts to be provided will assist the CVP and SWP to

efficiently integrate the Yuba flows in their operations plans, and will assist EWA in planning asset acquisition and management.

11.2. Yuba will provide the following:

- Updated forecasts of operations, monthly from February through June.
- Updated forecasts as necessary, but not less than monthly, depending on changing conditions, from July through January.
- The operations forecast should extend through the end of the current Water Year classification through January 31.
- Initially, each Water Year, separate operations forecasts will be provided based on hydrologic probability of exceedence levels of 90%, 10%, and 50%. Some forecasts may be deleted as the Water Year progresses, depending on need. Likewise, other forecasts may be added, if needed.
- Each Yuba forecast will include:
    1. Forecasted flows at Marysville Gage (daily for the first 30 days of forecasted flows and then monthly, or for a partial month if the dates of flow change within month are known)
    2. Forecasted Baseline Flows (daily for the first 30 day of forecasted flows and then monthly, or for a partial month if the dates of flow change within month are known)
    3. Forecasted New Bullards Bar reservoir storage
    4. New Bullards Bar forecasted inflow, outflow, diversions, evaporation
    5. Yuba River Index and Water Year classification
    6. North Yuba Index and computation details, North Yuba Year classification
    7. Forecasted transfer water quantities (monthly)
    8. Identification of any "make-up" flows or other flows planned.
    9. Amounts and timing of groundwater pumping contributing to availability of transfer flows.

DWR will provide to Yuba before the 1st of each month from February through June, and from July through January if updated Yuba forecasts are needed, the following information:

- Details of CVP and SWP forecasted reservoir and export operations through the end of the current calendar year.

- Forecasted periods of balanced conditions though the end of the current calendar year.

12. TECHNICAL COMMITTEE AND MANAGEMENT COMMITTEE

12.1. Technical Committee

The Technical Committee will: (1) collect, review and analyze information relevant to accounting of water consistent with **Exhibits 1, 2 and 3** of this Agreement, and information related to advances, payments and cost adjustments; (2) identify and attempt to resolve technical implementation issues; (3) periodically report to the Management Committee on the information gathered and any technical implementation issues identified; and (4) make recommendations to the Management Committee for resolution of any policy issues that arise or for any required factual determinations. If the Technical Committee is unable to agree on a recommendation to the Management Committee, then the Technical Committee will cooperate to provide a balanced presentation of the facts, opinions and other information underlying the various positions on the issue to be determined.

12.2. Management Committee.

The Management Committee will: (1) provide policy guidance in implementing this Agreement; (2) make any factual determinations required to implement this Agreement; (3) consider information provided by the Technical Committee, if applicable, when making decisions; and (4) identify and resolve any policy-related implementation issues.

EXHIBIT 2

Reservoir Refill Accounting Provisions

SECTION 1: GENERAL PRINCIPLES

DWR must be assured that the refilling of New Bullards Bar Reservoir resulting from purchase of water from Yuba by DWR will not impact the Projects. Such impacts could occur (according to DWR) if storage vacated by the transfer is refilled during Balanced Conditions in the Delta. Yuba agrees that if there is an outstanding account of impacts after the Water Year reservoir refill period, then Yuba will release additional water during subsequent Balanced Conditions in excess of normal operating requirements to compensate for refill impacts. The following procedures for determining refill impacts and conditions for additional releases will be used in accounting for refill. DWR will work with Reclamation to allocate the impact account between the Projects. This exhibit includes the definitions set forth in **Exhibit 1** to this Agreement. In addition, when used in this exhibit, the following terms have the following definitions:

1. "Base Transfer" is the amount of Delivered Transfer Water released from New Bullards Bar Reservoir, as determined by the accounting rules in **Exhibit 1** to this Agreement, and which results in a storage amount in New Bullards Bar Reservoir that is lower than the storage that would have occurred under Baseline Conditions. Calculation of this amount is described in Section 5 of **Exhibit 1** to this Agreement.

2. "Impact Account" is the amount of water DWR would have obtained from the Yuba River in the absence of the transfer releases, but which DWR did not receive due to refilling of New Bullards Bar Reservoir. The amount of Impact Account water will be computed daily during the Refill Period based on Balanced Conditions.

3. "Refill Period" is from October 1 through September 30.

4. "Target Storage" is the maximum storage volume during the Refill Period at which Yuba would normally operate New Bullards Bar Reservoir without a water transfer. The Target Storage levels are as follows:

   (a) October 1 through October 31: linearly ramped from 705,000 acre-feet to 700,000 acre- feet
   (b) November 1 through February 15: 700,000 acre-feet.

   (c) February 16 through March 31: linearly ramped from 700,000 acre-feet to 796,000 acre-feet.

   (d) April 1 through April 30: linearly ramped from 796,000 acre-feet to 896,000 acre-feet.

(e) May 1 through May 31: linearly ramped from 896,000 acre-feet to 966,000 acre-feet.

(f) June 1 through June 30: 966,000 acre-feet. This Target storage amount of 966,000 acre-ft may be slightly reduced because this amount is the top of conservation storage in New Bullards Bar Reservoir and releases may be made to avoid exceeding this storage amount. The Target Storage reduction will be made when releases from New Bullards Bar Reservoir are increased as storage reaches 996,000 acre-ft which demonstrates filling of the Reservoir.

(g) During July 1 through September 29, Target Storage must be determined on a case by case basis as described in **Exhibit 1** to this Agreement.

5. "Actual Storage" is the amount of water physically in storage in New Bullards Bar Reservoir at any time.

6. "Theoretical Storage" is the sum of: (1) Actual Storage on the day specified; and (2) Transfer Account Amount.

7. When Actual Storage exceeds the Target Storage during the Refill Period, there will be no further refill impacts.

8. The accounting procedure in Section 2 of this exhibit will be used to calculate the Impact Account. The general principles in Section 2 of this exhibit will be applied in accounting for any unusual operational conditions not set forth in the application example described below.

9. If the Transfer Amount Account is not zero on September 30, then the remaining balance of the account will be carried forward to the subsequent water year and the impact accounting will continue until the outstanding balance is eliminated.

10. If there is an Impact Account balance on September 30, then Yuba will release water during Balanced Conditions on a schedule that is agreed to by the Parties at a time when such releases will not create or affect deficiencies in local deliveries or instream flows, and these releases will be coordinated with releases for other (if any) water transfers of Yuba. The water released to offset refill impacts will be delivered as Delivered Transfer Water by Yuba and the accounting provisions and refill conditions of this section will apply to those quantities.

11. By July 31 of each year, the Parties will complete an accounting of the Impact Account.

12. If Project operations effectively reduce or eliminate a refill impact, the Impact Account balance may be adjusted to reflect that reduction or elimination subject to approval by the Projects.

SECTION 2: ACCOUNTING PROCEDURES FOR DETERMINING NEW BULLARDS BAR REFILL IMPACTS ON THE PROJECTS

The following columnar description sets forth the format, criteria, and procedures to be used for the determination of combined impacts to the Projects due to changes in refilling New Bullards Bar Reservoir caused by the transfer to DWR. An example of the application is attached.

COLUMNAR DESCRIPTION

Column 1 - Date

Column 2 - New Bullards Bar Reservoir Actual Storage at 2400 hours.

Column 3 - Transfer Amount Account (Base Transfer for the year) lists transfer water for which impact accounting is yet to be made. It is the previous day's amount minus the previous day's impact volume. Column 3_i = Column 3_{i-1} - Column 6_{i-1} any transfer amount account remaining after September 30 will be the initial (October 1) amount used in the subsequent water year.

Column 4 - Theoretical Storage indicates the operation of storage as it might have occurred in the absence of the transfer. It is the actual storage plus the Transfer Amount Account. Column 4_i = Column 2_i + Column 3_i

Column 5 - Target Storage is a postulated level of storage, which New Bullards Bar Reservoir might not normally exceed. When Column 5 exceeds this level, it is postulated that the storage would be reduced to the Target Storage amount. The Target Storage is defined as follows: October 1 (705,000); October 2-October 31 (ramped linearly to 700,000) November 1-February 15 (700,000); February 16-March 31 (ramped linearly to 796,000); April 1-30 (ramped linearly to 896,000); May 1-31 (ramped linearly to 966,000); June 1-30 (966,000); July 1-September 29 – determined by hydrology.

Column 6 - Impact Volume indicates daily amounts of water that would be released to achieve the Column 5 Target Storage. Column 6_i = (Column 4_i - Column 5_i) but not less than zero, and not greater than Column 3i.

Column 7 - Delta Conditions are determined jointly by DWR and Reclamation in accordance with the COA. A "1" is listed if the Delta is declared to be in Balanced Conditions three days after the daily amounts are calculated, a zero or null "-"is listed when the Delta is declared to be in excess conditions three days after the daily amounts are calculated. The amount of Theoretical Storage above the Target Storage on December 31, if any (Column 4 - Column 5), is deducted from the Transfer Amount Account (Column 3) on January 1.

Column 8 - Net Daily Impact is the daily impact volumes when the Delta is in Balanced Conditions as indicated in Column 7. Column 8_i = Column 6_i x Column 7.

Column 9 - Impact Account is the accumulation of Net Daily Impacts.
Column 9_i = Column 9_{i-1} + Column 8_i

WATER TRANSFER REFILL ACCOUNTING EXAMPLE

(all units are acre-feet)

Yuba County Water Agency-DWR

Transfer Amount	
30-Sep-01	102,912

1 Date	2 Actual Storage	3 Transfer Amount Account	4 Theoretical Storage	5 Target Storage	6 Impact Volume	7 Delta Condition (Balanced = 1)	8 Net Daily Impact	9 Impact Account
Previous Year Balances	-	102,912	-	-	-	-	-	
1-Jan-02	597,293	102,912	700,205	700,000	205	1	205	205
2-Jan-02	605,353	102,707	708,060	700,000	8,060	1	8,060	8,265
3-Jan-02	618,678	94,647	713,325	700,000	13,325	1	13,325	21,590
4-Jan-02	625,781	81,322	707,103	700,000	7,103	1	7,103	28,693
5-Jan-02	630,711	74,219	704,930	700,000	4,930	-	-	28,693
6-Jan-02	639,084	69,289	708,373	700,000	8,373	-	-	28,693
7-Jan-02	644,927	60,916	705,843	700,000	5,843	-	-	28,693
8-Jan-02	651,145	55,073	706,218	700,000	6,218	-	-	28,693
9-Jan-02	657,360	48,855	706,215	700,000	6,215	-	-	28,693
10-Jan-02	660,890	42,640	703,530	700,000	3,530	-	-	28,693
11-Jan-02	662,008	39,110	701,118	700,000	1,118	-	-	28,693
12-Jan-02	664,488	37,992	702,480	700,000	2,480	-	-	28,693
13-Jan-02	666,069	35,512	701,581	700,000	1,581	-	-	28,693
14-Jan-02	667,476	33,931	701,407	700,000	1,407	-	-	28,693
15-Jan-02	667,628	32,524	700,152	700,000	152	-	-	28,693
16-Jan-02	665,268	32,372	697,640	700,000	-	-	-	28,693
17-Jan-02	664,036	32,372	696,408	700,000	-	-	-	28,693
18-Jan-02	661,451	32,372	693,823	700,000	-	-	-	28,693
19-Jan-02	660,292	32,372	692,664	700,000	-	-	-	28,693
20-Jan-02	659,197	32,372	691,569	700,000	-	-	-	28,693
21-Jan-02	658,299	32,372	690,671	700,000	-	-	-	28,693
22-Jan-02	658,635	32,372	691,007	700,000	-	-	-	28,693
23-Jan-02	658,686	32,372	691,058	700,000	-	-	-	28,693
24-Jan-02	658,238	32,372	690,610	700,000	-	-	-	28,693
25-Jan-02	658,187	32,372	690,559	700,000	-	-	-	28,693
26-Jan-02	659,197	32,372	691,569	700,000	-	-	-	28,693
27-Jan-02	660,882	32,372	693,254	700,000	-	-	-	28,693
28-Jan-02	661,600	32,372	693,972	700,000	-	-	-	28,693
29-Jan-02	661,304	32,372	693,676	700,000	-	-	-	28,693
30-Jan-02	660,508	32,372	692,880	700,000	-	-	-	28,693
31-Jan-02	659,758	32,372	692,130	700,000	-	-	-	28,693
1-Feb-02	658,985	32,372	691,357	700,000	-	-	-	28,693
2-Feb-02	658,455	32,372	690,827	700,000	-	-	-	28,693
3-Feb-02	657,940	32,372	690,312	700,000	-	-	-	28,693
4-Feb-02	656,783	32,372	689,155	700,000	-	-	-	28,693
5-Feb-02	654,026	32,372	686,398	700,000	-	-	-	28,693
6-Feb-02	652,128	32,372	684,500	700,000	-	-	-	28,693
7-Feb-02	651,570	32,372	683,942	700,000	-	-	-	28,693
8-Feb-02	652,128	32,372	684,500	700,000	-	-	-	28,693
9-Feb-02	652,128	32,372	684,500	700,000	-	-	-	28,693
10-Feb-02	652,259	32,372	684,631	700,000	-	-	-	28,693
11-Feb-02	651,591	32,372	683,963	700,000	-	-	-	28,693
12-Feb-02	650,922	32,372	683,294	700,000	-	-	-	28,693
13-Feb-02	650,232	32,372	682,604	700,000	-	-	-	28,693
14-Feb-02	649,824	32,372	682,196	700,000	-	-	-	28,693
15-Feb-02	649,624	32,372	681,996	700,000	-	-	-	28,693
16-Feb-02	650,032	32,372	682,404	702,182	-	-	-	28,693
17-Feb-02	651,405	32,372	683,777	704,364	-	-	-	28,693
18-Feb-02	652,575	32,372	684,947	706,545	-	-	-	28,693
19-Feb-02	653,281	32,372	685,653	708,727	-	-	-	28,693
20-Feb-02	658,598	32,372	690,970	710,909	-	-	-	28,693
21-Feb-02	666,786	32,372	699,158	713,091	-	-	-	28,693
22-Feb-02	674,144	32,372	706,516	715,273	-	-	-	28,693
23-Feb-02	680,727	32,372	713,099	717,455	-	-	-	28,693
24-Feb-02	685,322	32,372	717,694	719,636	-	-	-	28,693
25-Feb-02	687,811	32,372	720,183	721,818	-	-	-	28,693
26-Feb-02	691,643	32,372	724,015	724,000	15	-	-	28,693
27-Feb-02	694,386	32,357	726,743	726,182	561	-	-	28,693
28-Feb-02	698,917	31,796	730,713	728,364	2,349	-	-	28,693
1-Mar-02	703,159	29,447	732,606	730,545	2,060	-	-	28,693
2-Mar-02	707,155	27,386	734,541	732,727	1,814	-	-	28,693
3-Mar-02	710,373	25,572	735,945	734,909	1,036	-	-	28,693
4-Mar-02	711,120	24,536	735,656	737,091	-	-	-	28,693
5-Mar-02	710,805	24,536	735,341	739,273	-	-	-	28,693
6-Mar-02	721,130	24,536	745,666	741,455	4,212	-	-	28,693
7-Mar-02	722,717	20,325	743,042	743,636	-	-	-	28,693

WATER TRANSFER REFILL ACCOUNTING EXAMPLE

(all units are acre-feet)

Yuba County Water Agency-DWR

Transfer Amount	
30-Sep-01	102,912

1 Date	2 Actual Storage	3 Transfer Amount Account	4 Theoretical Storage	5 Target Storage	6 Impact Volume	7 Delta Condition (Balanced = 1)	8 Net Daily Impact	9 Impact Account
8-Mar-02	723,313	20,325	743,638	745,818	-	-	-	28,693
9-Mar-02	723,035	20,325	743,360	748,000	-	-	-	28,693
10-Mar-02	725,630	20,325	745,955	750,182	-	-	-	28,693
11-Mar-02	726,907	20,325	747,232	752,364	-	-	-	28,693
12-Mar-02	727,985	20,325	748,310	754,545	-	-	-	28,693
13-Mar-02	729,862	20,325	750,187	756,727	-	-	-	28,693
14-Mar-02	731,902	20,325	752,227	758,909	-	-	-	28,693
15-Mar-02	732,645	20,325	752,970	761,091	-	-	-	28,693
16-Mar-02	734,698	20,325	755,023	763,273	-	-	-	28,693
17-Mar-02	737,672	20,325	757,997	765,455	-	-	-	28,693
18-Mar-02	738,065	20,325	758,390	767,636	-	-	-	28,693
19-Mar-02	737,191	20,325	757,516	769,818	-	-	-	28,693
20-Mar-02	736,268	20,325	756,593	772,000	-	-	-	28,693
21-Mar-02	735,412	20,325	755,737	774,182	-	-	-	28,693
22-Mar-02	734,609	20,325	754,934	776,364	-	-	-	28,693
23-Mar-02	736,697	20,325	757,022	778,545	-	-	-	28,693
24-Mar-02	741,329	20,325	761,654	780,727	-	-	-	28,693
25-Mar-02	743,517	20,325	763,842	782,909	-	-	-	28,693
26-Mar-02	744,612	20,325	764,937	785,091	-	-	-	28,693
27-Mar-02	745,737	20,325	766,062	787,273	-	-	-	28,693
28-Mar-02	747,115	20,325	767,440	789,455	-	-	-	28,693
29-Mar-02	748,429	20,325	768,754	791,636	-	-	-	28,693
30-Mar-02	751,766	20,325	772,091	793,818	-	-	-	28,693
31-Mar-02	755,597	20,325	775,922	796,000	-	-	-	28,693
1-Apr-02	758,292	20,325	778,617	799,333	-	-	-	28,693
2-Apr-02	760,868	20,325	781,193	802,667	-	-	-	28,693
3-Apr-02	763,749	20,325	784,074	806,000	-	-	-	28,693
4-Apr-02	766,970	20,325	787,295	809,333	-	-	-	28,693
5-Apr-02	770,692	20,325	791,017	812,667	-	-	-	28,693
6-Apr-02	774,878	20,325	795,203	816,000	-	-	-	28,693
7-Apr-02	778,783	20,325	799,108	819,333	-	-	-	28,693
8-Apr-02	780,904	20,325	801,229	822,667	-	-	-	28,693
9-Apr-02	783,327	20,325	803,652	826,000	-	-	-	28,693
10-Apr-02	786,643	20,325	806,968	829,333	-	-	-	28,693
11-Apr-02	790,090	20,325	810,415	832,667	-	-	-	28,693
12-Apr-02	792,364	20,325	812,689	836,000	-	-	-	28,693
13-Apr-02	795,653	20,325	815,978	839,333	-	-	-	28,693
14-Apr-02	799,624	20,325	819,949	842,667	-	-	-	28,693
15-Apr-02	804,117	20,325	824,442	846,000	-	-	-	28,693
16-Apr-02	805,951	20,325	826,276	849,333	-	-	-	28,693
17-Apr-02	806,933	20,325	827,258	852,667	-	-	-	28,693
18-Apr-02	807,617	20,325	827,942	856,000	-	-	-	28,693
19-Apr-02	807,959	20,325	828,284	859,333	-	-	-	28,693
20-Apr-02	809,284	20,325	829,609	862,667	-	-	-	28,693
21-Apr-02	809,626	20,325	829,951	866,000	-	-	-	28,693
22-Apr-02	809,953	20,325	830,278	869,333	-	-	-	28,693
23-Apr-02	809,868	20,325	830,193	872,667	-	-	-	28,693
24-Apr-02	809,626	20,325	829,951	876,000	-	-	-	28,693
25-Apr-02	808,942	20,325	829,267	879,333	-	-	-	28,693
26-Apr-02	809,441	20,325	829,766	882,667	-	-	-	28,693
27-Apr-02	810,850	20,325	831,175	886,000	-	-	-	28,693
28-Apr-02	812,604	20,325	832,929	889,333	-	-	-	28,693
29-Apr-02	813,135	20,325	833,460	892,667	-	-	-	28,693
30-Apr-02	812,793	20,325	833,118	896,000	-	-	-	28,693
1-May-02	811,021	20,325	831,346	898,258	-	-	-	28,693
2-May-02	809,996	20,325	830,321	900,516	-	-	-	28,693
3-May-02	809,996	20,325	830,321	902,774	-	-	-	28,693
4-May-02	808,771	20,325	829,096	905,032	-	-	-	28,693
5-May-02	810,781	20,325	831,106	907,290	-	-	-	28,693
6-May-02	810,952	20,325	831,277	909,548	-	-	-	28,693
7-May-02	811,294	20,325	831,619	911,806	-	-	-	28,693
8-May-02	810,781	20,325	831,106	914,065	-	-	-	28,693
9-May-02	810,781	20,325	831,106	916,323	-	-	-	28,693
10-May-02	809,284	20,325	829,609	918,581	-	-	-	28,693
11-May-02	808,771	20,325	829,096	920,839	-	-	-	28,693
12-May-02	808,087	20,325	828,412	923,097	-	-	-	28,693

ACCOUNTING TO CONTINUE UNTIL SEPTEMBER 30 OR UNTIL REFILL IS NO LONGER POSSIBLE

EXHIBIT 3

GROUNDWATER MONITORING AND REPORTING PROGRAM

1. Groundwater Monitoring

In cooperation with DWR, Yuba has monitored Yuba County groundwater conditions for many years, and many aspects of the groundwater resources are well known. Yuba and DWR have worked cooperatively to develop a groundwater transfer monitoring and reporting program specific to Yuba County for past groundwater substitution water transfers. Yuba has also developed a Groundwater Management Plan ("GMP"), which was adopted on March 1, 2005 pursuant to Water Code Sections 10750 *et seq*. The GMP formalizes a monitoring program that includes measuring water levels in wells that are part of a dedicated monitoring well network, a plan to expand the network, annual reporting provisions and other groundwater monitoring activities. Since 2005, Yuba has constructed eight additional groundwater monitoring wells for this program. (See DWR, Memorandum Report, "Monitoring Well Construction Technical Assistance," April 2007.) Information gathered from the activities specified in the GMP, along with the activities described in this exhibit, will be used to assess effects of groundwater pumping on groundwater resources, and to provide reasonable assurances that any water pumped and accounted for as part of any groundwater substitution is in lieu of surface water delivered by Yuba to its Member Units. Yuba will continue to work with DWR and the Member Units to identify and resolve any new groundwater monitoring issues.

a. The water levels in selected production wells geographically dispersed throughout each Member Unit participating in the groundwater substitution program will be measured by the Member Unit prior to the initial pumping for each year during which a groundwater substitution transfer will take place. Selection of these wells will be by mutual agreement by DWR and Yuba, in consultation with the Member Unit. Upon termination of pumping for the year, the water levels will be measured by the Member Units, and such measurements will continue on a monthly basis until water levels have recovered to the pre-pumping levels, or have stabilized. In no case will water-level measurements be required following spring high water levels in the year following the year of the groundwater substitution pumping. The Member Units will provide the water-level readings to Yuba within 15 days of each reading.

b. To supplement the GMP-specified monitoring program, water levels in each monitoring well in the Yuba network will be measured at least every two months by Yuba in each year during which a groundwater substitution transfer is to take place, commencing no later than April. Upon termination of pumping, the monitoring well water levels will be measured, and such measurements will continue on a monthly basis until water levels have recovered to the pre-pumping levels, or have stabilized. In no case will water-level measurements be required following spring high water levels in the year following the year of the groundwater substitution pumping. DWR and Yuba will cooperate in obtaining these measurements.

c. Readings of flow meters on the discharges of the wells will be recorded every month during the pumping period by Member Units for each production well. In addition, electric meter readings and fuel consumption for diesel pumps will be recorded by the Member Units, and made available to Yuba upon request. The quantities of water pumped between successive readings will be calculated by Member Units and reported to Yuba.

d. Electrical Conductivity ("EC") will be measured for water pumped from selected production wells at the initiation of pumping (or as soon thereafter as practicable), two months after the initial EC measurements and at the termination of pumping.

e. For selected production wells (to be identified before the monitoring plan is finalized) near Yuba monitoring wells, drawdown analyses (of distance and time) will be completed, and comparisons made to monitoring well water levels.

All monitoring data will be reported on a semi-monthly basis, and in an annual final summary report prepared by Yuba that will evaluate the impacts of the groundwater substitution pumping transfer program for that year. The final report will include water-level contour maps for the groundwater basin showing initial water levels and final, recovered water levels.

2. Groundwater Pumping Operations Plan

This Agreement sets forth the procedures by which the total amount of water to be transferred will be determined. These amounts include Components 1, 2, 3 and 4 water. A portion of the Water will be from surface water and a portion may be provided through groundwater substitution pumping. Yuba will base the determination of the amount of water to be provided through groundwater substitution pumping (in consultation with the Member Units) by: (a) estimating the amount of surface water that will be transferred for the year by operation to the flow schedules in the Fisheries Agreement and the September 30 target New Bullards Bar Reservoir storage level; (b) determining the amount of water from groundwater substitution pumping that Member Units can make available through wells of farmers who are willing to participate in the program and whose farms are located within a participating Member Unit; and (c) determining the amount of water that can be pumped within the safe yield of the basin without contributing to long-term overdraft and without resulting in significant unmitigated impacts to other groundwater users in the basin.

This section sets forth the procedure that will be used to determine the amount of water that can be pumped within the safe yield of the basin without contributing to long-term overdraft, and without resulting in any significant unmitigated third-party ("Third Party" or "Third Parties") impacts to other groundwater users in the basin. Section 1 of this Exhibit describes the monitoring plan that will be used to obtain information from which the determination will be made of the condition of the groundwater basin in the spring of the year during which groundwater substitution pumping is planned. Based on this condition,

Yuba will determine the expected response of the basin to the proposed pumping for that year and the resulting condition of the basin at the conclusion of the pumping. Determination of the expected condition at the conclusion of the pumping will be made by examining the historic response of the basin during previous years when pumping occurred and by examining the recovery of the basin during pumping years and successive years, and by comparing these basin responses with the planned pumping. Analysis of the historical responses of the basin to pumping will be used to develop empirical relationships between pumping and basin drawdown and recovery. These empirically derived relationships will be the formulas that will be used to determine basin response to the proposed pumping.

The determination of basin response to the proposed pumping will result in an estimated basin condition at the end of pumping and an estimated condition for the spring of the next year. This estimated condition will be compared to historical groundwater levels in the basin. In 1991, Yuba and the Member Units completed a groundwater substitution transfer to provide water to other parts of California under the Governor's Emergency Drought Water Bank in response to a severe statewide drought. The groundwater levels that occurred in the fall of 1991 at the end of pumping did not result in any overdraft of the groundwater basin or any significant unmitigated Third-Party impacts. Groundwater levels had been lower than these levels during the 1980's, but the extent of effects of these lower levels on groundwater users in the basin is not well known. Therefore, the fall 1991 groundwater levels will be used for comparison with the estimated condition of the basin that will result from the proposed groundwater pumping under this Agreement and the Yuba River Accord.

If the estimated levels are above the fall 1991 levels, then significant unmitigated Third- Party impacts will not be expected. If the estimated levels are below the fall 1991 levels, then further examination of potential impacts and consultation with the Member Units and the GMP Water Advisory Group (discussed below) will be required. The GMP Water Advisory Group is a group that was formed under the GMP to provide input and guidance on groundwater issues. The GMP Water Advisory Group comprises representatives from local groundwater users, including municipal water purveyors, Member Units, reclamation districts and others. Groundwater substitution pumping that would result in levels near the fall 1991 levels will occur only if the Member Units agree to allow such pumping. Even if the determination is that estimated levels resulting from proposed pumping will be above the fall 1991 levels, the Member Units still will be consulted, and each Member Unit must individually approve the proposed pumping in its area or such pumping will not occur. If the amount of proposed pumping that will not cause fall groundwater levels to drop below 1991 levels cannot be confirmed using the procedures described above, then a lower amount of pumping that satisfies the conditions of this section will be determined using these procedures. The Yuba Board reserves the right to restrict the maximum amount of groundwater substitution pumping and the right to resolve any disputes in the Water Advisory Group regarding maximum amount of groundwater pumping.

If for any year the total amount of groundwater pumping that is determined to be acceptable under this section is less than the total amount of Components 1, 2 and 3 water

that is provided for in the Agreement, minus the amount of surface water to be transferred, then Yuba may either: (a) use additional surface water through supplemental surface water transfers to provide Components 1, 2 and 3 water; or (b) advise DWR that the total unmet amount of Components 1, 2 and 3 water will not be provided during the present year and instead will be owed to the Buyer and repaid in a manner detailed in **Exhibit 1** of this Agreement

3. Third-Party Impacts Action Plan

The purpose of this Third-Party impacts action plan is to describe actions that will be undertaken by Yuba and Member Units to respond to impacts to Third Parties that occur because of groundwater substitution pumping for transfers under this Agreement. Third Parties include local groundwater users that could be affected by fluctuations in groundwater levels because of the pumping of such groundwater substitution water. Yuba and the Member Units agree that prompt responses to and mitigation of potential impacts to Third Parties are an important requirement for Yuba's present and future groundwater substitution transfers.

This action plan includes a series of steps that will be taken to ensure that the groundwater substitution component of this Agreement and the Yuba River Accord does not cause significant, unmitigated impacts to Third Parties. Under this action plan, groundwater substitution pumping must not produce significant unmitigated impacts on Third Parties, impacts must be identified and mitigated as quickly as possible, and there must be ongoing, open communications with affected Third Parties. Because not all potential impacts can be known in advance, this plan provides a process for responding to concerns expressed by local groundwater users who believe that their water-production facilities are being or will be impacted by groundwater substitution pumping under this Agreement and the Yuba River Accord.

As a contractual condition of a Member Unit participating in the groundwater substitution component of this Agreement and the Yuba River Accord, the Member Unit will identify a contact person or persons who will be responsible for initially responding to a notification of a potential Third-Party impact, and take the other action specified in this section. The contact person for a Member Unit will be the person designated by the Member Unit. The responsibilities of Yuba under this action plan will be carried out by the General Manager, or by a person designated by the General Manager. The contact persons for the Member Units will also serve on a Yuba Groundwater Substitution Program Advisory Group ("Advisory Group") for either the area north of the Yuba River or the area south of the Yuba River.

Upon either Yuba or the Member Unit receiving notification of a potential Third-Party impact, Yuba or the Member Unit will immediately notify the other party of the nature of the potential impact. The Member Unit will promptly (within one day) contact the Third Party and obtain all available information regarding the nature and extent of the potential

impact, and provide that information to Yuba. The Member Unit also will regularly update Yuba on the status of the Member Unit's response.

If the Third Party is not within the boundaries of any Member Unit of Yuba, then Yuba will either: (a) determine if it is evident that the Third Party is in close proximity to the groundwater-production facilities within a Member Unit that are involved in the groundwater substitution program, and designate the Member Unit or Member Units responsible for responding to the potential impact; or (b) consult with the Advisory Group concerning which Member Unit or Member Units should be designated for responding to the potential impact.

After the Third Party has been contacted and the relevant information regarding the potential impact has been received, the Member Unit will develop an approach (subject to approval by Yuba) to: (a) determine whether the Third Party has actually been impacted by groundwater pumping by the Member Unit, and, if so; (b) mitigate for the impact. Yuba will be available to provide assistance to the Member Unit in developing the foregoing approach. Yuba and the Member Unit will consult with the applicable Advisory Group in developing the approach referred to in this section.

Yuba will resolve any dispute concerning implementation of this action plan, including which Member Unit will be responsible for mitigating a potential impact, whether it is reasonably likely that there was a Third-Party impact, and the measures to be taken by the Member Unit to mitigate the impact. If a Member Unit fails to carry out its responsibilities under this action plan, then Yuba will be authorized (but not required) to perform the responsibilities of the Member Unit and recover its reasonable costs in doing so from the Member Unit, including deducting these costs from payments due the Member Unit for the groundwater substitution transfer. Yuba will consult with the applicable Advisory Group in carrying out its responsibilities under this section.

It is the intention of this action plan that: (a) any Third-Party impact that is reasonably likely to have been caused by implementation of the groundwater substitution program will be promptly and substantially mitigated; (b) as to any Third-Party impact that is not reasonably likely to have been caused by implementation of the groundwater substitution program, the Third Party will be provided information to reasonably demonstrate the reasons that there were no impacts; and (c) Yuba, the Member Units and the Advisory Group will be involved in the implementation of this action plan. Actions that will be taken to mitigate an impact include, but are not limited to, deepening of the impacted Third Party's well or lowering of pump bowls, cessation of pumping in the area of the impacted well, and providing a temporary or permanent alternative water supply to the Third Party.

EXHIBIT 4

State of California – Department of Water Resources

Agreement for the Long-term Purchase of Water from Yuba County Water Agency by the Department of Water Resources

STANDARD CLAUSES

Worker's Compensation Clause. Contractor affirms that it is aware of the provisions of Section 3700 of the California Labor Code which require every employee to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor affirms that it will comply with such provisions before commencing the performance of work under this Agreement.

Nondiscrimination Clause. During the performance of this Agreement, Contractor and its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave. Contractor and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Contractor and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (a-f) et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

Compliance with Laws, Regulations, Permit Requirements. Contractor shall at all times comply with, and require its contractors and subcontractors to comply with, all applicable federal and State laws, rules and regulations, permits and all applicable local ordinances, specifically including but not limited to environmental, procurement and safety laws, rules, regulations, permits and ordinances.

Availability of Funds. Work to be performed under this contract is subject to the availability of funds through the State's normal budget process.

Audit Clause. For contracts in excess of $10,000, the contracting parties shall be subject to the examination and audit of the State Auditor for a period of three years after the final payment under the contract (Government Code Section 8546.7).

Payment Retention Clause. Ten percent of any progress payments that may be provided under this contract shall be withheld per Public Contract Code Sections 10346 and 10379 pending satisfactory completion of all services under the contract.

Reimbursement Clause. If applicable, travel and per diem expenses to be reimbursed under this contract shall be at the same rates the State provides for unrepresented employees in accordance with the provisions of Title 2, Chapter 3, of the California Code of Regulations. Contractor's designated headquarters for the purpose of computing such expenses shall be: 1402 D Street, Marysville, California 95901-4226.

Drug-Free Workplace Certification. By signing this contract, the Contractor or grantee hereby certifies under penalty of perjury under the laws of the State of California that the Contractor or grantee will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.

2. Establish a Drug-Free Awareness Program to inform employees about all of the following:

   (a) The dangers of drug abuse in the workplace,

   (b) The person's or organization's policy of maintaining a drug-free workplace,

   (c) Any available counseling, rehabilitation, and employee assistance programs; and

   (d) Penalties that may be imposed upon employees for drug abuse violations.

3. Every employee who works on the proposed contract or grant:

   (a) Will receive a copy of the company's drug-free policy statement, and

   (b) Will agree to abide by the terms of the company's statement as a condition of employment on the contract or grant.

This contract or grant may be subject to suspension of payments or termination, or both, and the contractor or grantee may be subject to debarment if the Department determines that: 1) the Contractor or grantee has made a false certification, or 2) the Contractor or grantee violates the certification by failing to carry out the requirements noted above.

Americans with Disabilities Act. By signing this contract, Contractor assures the State that it complies with the Americans With Disabilities Act (ADA) of 1990, 942 U.S.C.12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

Conflict of Interest. Current State Employees: a) No officer or employee shall engage in any employment activity or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any State agency, unless the employment, activity or enterprise is required as a condition of regular State employment. b) No State officer or employee shall contract on his or her own behalf as an independent contractor with any State agency to provide goods or services.

Former State Employees: a) For the two year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. b) For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.

Child Support Compliance Act. For any agreement in excess of $100,000, the Contractor acknowledges in accordance herewith, that:

1. The Contractor recognizes the importance of child and family support obligations and shall full comply with all applicable State and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earning assignment orders, as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the Family Code; and

2. The Contractor, to the best of its knowledge, is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the Employment Development Department.

Air or Water Pollution Violation. Under the State laws, the Contractor shall not be: 1) in violation of any order or resolution not subject to review promulgated by the State Air Resources Board or an air pollution control district; 2) subject to cease and desist order not subject to review issued pursuant to Section 13301 of the Water Code for violation of waste

discharge requirements or discharge prohibitions; or 3) finally determined to be in violation of federal law relating to air or water pollution.

Union Organizing. For all contracts, except fixed price contracts of $50,000 or less, the Contractor acknowledges that: by signing this Agreement the Contractor hereby acknowledges the applicability of Government Code Section 16645 through Section 16649 to this Agreement and agrees to the following:

(a) Contractor will not assist, promote or deter union organizing by employees performing work on a State service contract, including a public works contract.

(b) No State funds received under this Agreement will be used to assist, promote or deter union organizing.

(c) Contractor will not, for any business conducted under this Agreement, use any State property to hold meetings with employees or supervisors, if the purpose of such meetings is to assist, promote or deter union organizing, unless the State property is equally available to the general public for holding meetings.

(d) If Contractor incurs costs or makes expenditures to assist, promote or deter union or organizing, Contractor will maintain records sufficient to show that no reimbursement from State funds has been sought for these costs, and that the Contractor shall provide those records to the Attorney General upon request.

Recycling Certification. Contractor shall certify in writing under penalty of perjury, the maximum, if not exact, percentage of recycled content, both post consumer water and secondary waste as defined in Public Contract Code, Section 12161 and 12200, in materials, goods, or supplies offered or products used in the performance of this Agreement, regardless of whether the product meets the required recycled product percentage as defined in Public Contract Code, Sections 12161 and 12200. Contractor may certify that the product contains zero content. (PCC 10233, 10308.5, 10354)

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
AND
YUBA COUNTY WATER AGENCY

AMENDMENT NO. 5 TO THE AGREEMENT FOR THE LONG-TERM PURCHASE OF WATER FROM YUBA COUNTY WATER AGENCY BY THE DEPARTMENT OF WATER RESOURCES SWPAO NO. 14-851

This Amendment No. 5 (Amendment) to the December 4, 2007 Agreement for the Long-Term Purchase of Water from Yuba County Water Agency by the Department of Water Resources, as amended from time to time (Agreement), is entered into as of _____, 2014, between the Department of Water Resources of the State of California (DWR), pursuant to the provisions of the California Water Resources Development Bond Act, the Central Valley Project Act, and other applicable laws of the State of California, and Yuba County Water Agency (Yuba), pursuant to the Yuba Act (California Statutes 1959, Chapter 788, as amended), and other applicable laws of the State of California. Except as provided for in this Amendment, defined terms in the Agreement will have the same meaning in this Amendment.

The Parties hereby amend the Agreement as follows:

1. **Recitals.** The Recitals Section of the Agreement is amended by adding the following new recitals:

"**N**. The Parties amended the Agreement in 2009 (Amendment No. 1 and Amendment No. 2), 2010 (Amendment No. 3) and 2012 (Amendment No. 4).

O. Under Section 15 of the Agreement, the pricing provisions for Water that is made available after September 30, 2015 will be subject to a new pricing agreement among the Parties. Amendment 5 memorializes the agreement of the Parties under Section 15 of the Agreement, as well as amending other provisions of the Agreement.

P. On June 9, 2014, the State Board approved Yuba's petition to change water right permit 15026 to add a point of rediversion at the point of diversion for the Freeport Regional Water Project. The State Board's order determined that the ordering conditions satisfied the State Board's public trust responsibility, relying on the Yuba Accord Environmental Impact Report and an addendum to the Yuba Accord Environmental Impact Report that was prepared by Yuba."

2. **Definitions.** Section 1 of the Agreement is amended by inserting in proper alphabetical order, the following new defined terms:

A. "Accrued Groundwater Substitution Component" water means the amount of surface water in New Bullards Bar Reservoir that results from Yuba's groundwater substitution pumping program established by Yuba and its Member Units under their Conjunctive Use Agreements for making available Groundwater Substitution Component water."

B. "Freeport POD" means the point of diversion for the Freeport Regional Water Project, as described in the June 9, 2014 order of the State Board that approved the Freeport POD as an authorized point of rediversion for Yuba transfer water."

C. "Participating Contractors" means all SWP contractors and CVP contractors who have executed an agreement with DWR to be entitled to receive water supplies under the Agreement."

D. "State Board Order" means State Board Corrected Order WR 2008-0014, which amended Yuba's Water Right Permits 15026, 15027 and 15030 to include, with some modifications, the streamflow requirements in the Fisheries Agreement and by adding, through December 31, 2025, the SWP and CVP Delta diversion facilities as points of rediversion, and the SWP and CVP service areas to the place of use, under Permit 15026."

3. Section 5.A.2. Section 5.A.2. of the Agreement is amended to read as follows:

"2. In certain years, and pursuant to the accounting principles set forth in Exhibit 1 to the Agreement, operational limitations of the Yuba Project, the CVP, and/or the SWP may cause the quantity of Component 1 Water that Yuba can deliver to the Buyer to be reduced below 60,000 acre-feet during a Water Accounting Year. Under those circumstances, unless the Parties agree otherwise, Yuba will deliver the undelivered Component 1 Water from the 2011 Water Accounting Year and the quantity (if any) of undelivered Component 1 Water from the 2015 Water Accounting Year during subsequent years under the following conditions: (a) during the next Water Accounting Year that is not a Dry or Critical Water Year; (b) when such make-up water can be

delivered from Yuba's available surface-water supply; (c) notwithstanding any other provision of the Agreement, as the first Delivered Transfer Water provided in the first Water Accounting Year after 2015 that has a Final Classification either as Wet, Above Normal, or Below Normal at the rate of 60,000 acre-feet per year until fully repaid; and (d) on a schedule that is acceptable to the Buyer and Yuba. Yuba will not be required to provide a makeup supply for an account deficit of Component 1 Water that was incurred on or after January 1, 2016. In any year starting in the 2016 Water Accounting Year that Yuba provides a makeup supply of Component 1 Water, Yuba will not be obligated to also provide the quantity of Component 1 Water that is provided for in section 25.C.1 of the Agreement."

4. **Section 5.A.4.** Section 5.A.4. of the Agreement (Component 1 Water Quantity during the term of an FERC Annual License) is deleted as of October 1, 2015.

5. **Section 5.C.** Section 5.C. of the Agreement is amended to read as follows:

"**C. Invoicing**. Yuba will invoice DWR for Component 1 Water made available starting January 1, 2016 in the same manner that Yuba invoices DWR for Component 2 Water and Component 3 Water except that, in those years when Yuba is delivering the remaining undelivered quantity of the 480,000 acre-feet of Component 1 Water, Yuba will reduce its invoice for current year Component 1 deliveries by the amount of water being delivered to repay the remaining undelivered quantity of the 480,000 acre-feet of Component 1 Water."

6. **Section 6.A.** Section 6.A. of the Agreement is amended by adding at the end the following new paragraph:

> **"5.** Yuba will not be required to provide a makeup supply for an account deficit of Component 2 Water that existed before or after the effective date of Amendment 5 to the Agreement."

7. **Section 6.C.1** Section 6.C.1. of the Agreement is amended by changing the date of June 1 to the date of May 22.

8. **Section 7.A.** Section 7.A. of the Agreement is deleted.

9. **Section 7.B.1.** Section 7.B.1. of the Agreement is amended by deleting subpart f.

10. **Section 7.C.1.** Section 7.C.1. of the Agreement is amended by changing the date of June 1 to the date of May 22.

11. **Section 7.C.** Section 7.C. of the Agreement is amended by adding at the end the following new paragraph:

> "3. Yuba will not be required to provide a makeup supply for an account deficit of Component 3 Water that existed before or after the effective date of Amendment 5 to the Agreement."

12. **Section 8.B.** Section 8.B. of the Agreement is amended to read as follows:

"**B.** Provisions Applicable to Groundwater Substitution Component Water as of the Effective Date of Amendment 5 to the Agreement. Notwithstanding any other provision of the Agreement (including Amendment 4 to the Agreement), the following provisions will apply to Groundwater Substitution Component Water that is made available by Yuba after January 1, 2016:

1. Yuba is not required to provide Groundwater Substitution Component water for any purpose under the Agreement except upon pricing and other terms that are agreed to by Yuba and the Member Units, which are also agreed to by DWR and the Participating Contractors.

2. Yuba is not required to provide Groundwater Substitution Component water for delivery of Component 1 Water, Component 2 Water or Component 3 Water. Sections 7.2.2, 7.2.3 and 7.2.4 of Exhibit 1 of the Agreement are inapplicable to Groundwater Substitution Component water.

3. Groundwater Substitution Component water will be the only water that comprises Component 4.

4. Yuba will notify DWR by April 1 of each year during the term of this Agreement of the amount of Accrued Groundwater Substitution Component water that Yuba will make available during the Water Accounting Year. By April 15, DWR will notify Yuba of the amount of Accrued Groundwater Substitution Component water it commits to purchase based on requests by Participating

Contractors. DWR may adjust this amount, up or down, on or before May 15, and on May 15 DWR will commit to the final quantity of Accrued Groundwater Substitution Component water to be purchased during the Water Accounting Year, but such amount will not be less than the actual amount of Accrued Groundwater Substitution Component water made available between April 1 and May 15 for Groundwater Substitution Component water in accordance with the accounting provisions for Groundwater Substitution Component water set forth in Exhibit 1 of the Agreement. The dates herein may be adjusted if approved in writing by Yuba and DWR to allow the Member Units to maximize the quantities of groundwater substitution pumping program water that could be made available during each year.

5. In every year that DWR desires to purchase Accrued Groundwater Substitution Component water, representatives of DWR, Yuba, the Member Units and the Participating Contractors will convene by February 15 and conclude by March 31 as the Management Committee to negotiate the price per acre-foot of Accrued Groundwater Substitution Component water, any provisions for the Delta export priority for such water and any other terms applicable to the Accrued Groundwater Substitution Component water. The 30,000 acre-feet of Groundwater Substitution Component water that Yuba is required to provide in a Schedule 6 Year under term 1a of the State Board Order will be Accrued Groundwater Substitution Component water for all purposes under the Agreement, except that, the Member Units will not be involved in the negotiation of the price for this water supply.

6. In every Water Accounting Year when: (1) one or more Participating Contractor(s) desire to purchase Accrued

Groundwater Substitution Component water; (2) the annual negotiations referenced in Paragraph 5 above have reached a successful conclusion calling for the purchase of such water in that year; (3) the Management Committee representatives for Yuba, the Authority, and the State Water Contractors have agreed as to the terms of, and each of these representatives has recommended in writing said terms and the approval of, a letter agreement between Yuba and DWR establishing the price per acre-foot and any other modified terms that will be applicable to the Accrued Groundwater Substitution Component water for that Water Accounting Year; and (4) DWR and Yuba have executed said letter agreement, DWR will offer in writing to Participating Contractors the opportunity to purchase Accrued Groundwater Substitution Component water at the price and terms as provided in the letter agreement between DWR and Yuba.

7. Yuba will confirm on a monthly basis the quantities of the Accrued Groundwater Substitution Component water and the quantities of Groundwater Substitution Component water released as Released Transfer Water, in accordance with the accounting provisions for Groundwater Substitution Component water set forth in Exhibit 1 of the Agreement.

8. DWR will provide Yuba not less than 72 hours' notification for suspension or termination of groundwater pumping due to limitations on the ability of DWR to divert and use the Groundwater Substitution Component water. In the event of such a suspension or termination of Groundwater Substitution Component water, DWR will pay for the quantity of Accrued Groundwater Substitution Component water up to and including through the 72-hour notification of suspension or termination (i.e., DWR will pay

for the quantity of Accrued Groundwater Substitution Component water through the notice period irrespective of whether DWR was able to divert and use the Accrued Groundwater Substitution Component water).

9. Pursuant to the negotiations described in Paragraph 5 above, if the Management Committee so determines, DWR will require any Participating Contractor requesting Groundwater Substitution Component water to schedule this water with the Delta conveyance priority in relation to any other transfer water that DWR conveys at the Harvey O. Banks Pumping Plant for these same Participating Contractors that has been agreed to by the Management Committee, provided that the Groundwater Substitution Component water will not have a higher priority than Storage Component water provided under the Agreement.

10. Pursuant to the negotiations described in Paragraph 5 above, if the Management Committee so determines, DWR will require that the Authority schedule Groundwater Substitution Component water with the Delta conveyance priority in relation to any other transfer water that the Authority schedules for conveyance at the Harvey O. Banks Pumping Plant or at the C.W. Jones pumping plant for the members of the Authority that will receive water pursuant to this Amendment that has been agreed to by the Management Committee, provided that the Groundwater Substitution Component water will not have a higher priority than Storage Component water provided under the Agreement.

11. Except as otherwise provided herein, Groundwater Substitution Component water and Accrued Groundwater

Substitution Component water will be accounted for in accordance with the provisions of the Agreement.

12. Consistent with the water accounting principles set forth in Exhibit 1 to the Agreement, Yuba agrees that making the Groundwater Substitution Component water available in any Water Accounting Year will not affect the quantity of Storage Component water that Yuba makes available in that year or thereafter."

13. Section 8.C. Section 8.C. of the Agreement is amended to read as follows:

"C. Groundwater Substitution Payment Provisions

1. DWR will pay Yuba the per acre foot price for the amount of Accrued Groundwater Substitution Component that DWR has committed to purchase in the letter agreement described in this Section, unless this amount is reduced as provided for under Section 8.B.8 or is reduced because the Yuba Member Units do not pump the requested quantity of groundwater substitution pumping program water for the Groundwater Substitution Component water.

2. The Parties acknowledge that Section 5.1.8 of the Yuba Accord Fisheries Agreement allows the River Management Team to schedule the release of a portion of Groundwater Substitution Component water at a time when it might not be transferable. DWR will not be required to pay for the portion (if any) of Groundwater Substitution Component water that is scheduled for release in accordance with the provisions of Section 5.1.8 of the Yuba Accord Fisheries Agreement to the extent that this quantity of Groundwater Substitution Component water is not transferable

under the accounting provisions set forth in Exhibit 1 of the Agreement."

14. Section 8. Section 8 of the Agreement is amended by adding at the end the following new subparagraph:

"D. Groundwater Substitution Water Invoicing

1. On or about May 22 in each year that DWR has agreed to purchase Accrued Groundwater Substitution Component water, Yuba will submit an invoice to DWR for 50 percent of the amount of Accrued Groundwater Substitution Component water that DWR has committed to purchase in the letter agreement described in this section during the current Water Accounting Year.

2. On or about August 30 in each year that DWR has agreed to purchase Accrued Groundwater Substitution Component water, Yuba will submit an invoice to DWR for 100 percent of the amount of Accrued Groundwater Substitution Component water DWR has committed to purchase in the letter agreement described in this section or that is otherwise payable under Section 8 during the current Water Accounting Year, less the amount of prior invoices for such Accrued Groundwater Substitution Component water during the current Water Accounting Year.

3. Within 60 days of the date that DWR receives an invoice from Yuba, DWR will submit payment to Yuba. DWR's payment will be reduced by 10 percent to allow accounting adjustments (if necessary) in the final payment to Yuba for the Accrued Groundwater Substitution Component water.

4. Approximately 30 days after the end of the release of groundwater substitution transfer water from New Bullards Bar Reservoir, after confirmation of the amount of groundwater substitution transfer water has been completed, and after Yuba and DWR have reached agreement on the final accounting, Yuba will provide to DWR in a final invoice that is undisputed and as required under the Agreement, an amount for final payment for Accrued Groundwater Substitution Component water provided under Section 8. The final payment for Accrued Groundwater Substitution Component water will reflect any adjustments necessary to account for the total quantity of Accrued Groundwater Substitution Component water payable under Section 8 and any adjustments provided for under Section 8.B.8.

5. If payments from any contractors to DWR for Accrued Groundwater Substitution Component water are delinquent, DWR will make partial payments to Yuba by the invoice due dates by remitting the amounts received pursuant to the invoice as of the due date. DWR will pay any delinquent portion to Yuba as soon as DWR receives the delinquent payments.

6. The agreements between DWR and the Participating Contractors provide for a Participating Contractor to pay interest on delinquent payments at the rate of 1 percent per month from the due date until paid in full. DWR will assess and use reasonable efforts to collect such interest from Participating Contractors who are delinquent in making payments to DWR for invoices under the Agreement, and DWR will pay such interest collected along with the payments on invoices to Yuba."

15. Section 11.F. Section 11.F. of the Agreement is amended to read as follows:

"F. Reservation of the Right of Yuba to Transfer Certain Quantities of Water to a Third Party.

1. As provided in Section 25.B. of the Agreement, DWR will purchase all Storage Component water that is accounted for as Delivered Transfer Water. The Parties will estimate as expeditiously as possible during each year whether Storage Component water is likely to be accounted for as Delivered Transfer Water in that Water Accounting Year. Yuba may transfer any quantity of Released Transfer Water that DWR determines will not be accounted for as Delivered Transfer Water to a "Third Party." A Third Party as defined in this Section 11 includes an agency, entity or individual that is other than: (a) DWR; (b) a Participating Contractor; or (c) a member unit, customer, landowner or any other entity within the boundaries of a Participating Contractor. This type of water transfer is referred to as the "First Type of Third-Party Transfer." Yuba may transfer the First Type of Third-Party Transfer water for diversion at any diversion facility that is a current or future authorized point of rediversion for Yuba transfer water, except that, the First Type of Third-Party Transfer can be diverted at diversion facilities for Contra Costa Water District, if authorized, and if the diversion does not adversely affect the operation of the Projects during Balanced Conditions or at any other time that such diversion would directly or indirectly require the Projects to release water from storage or to reduce their diversion or rediversion of water from the Delta to provide or assure flow in the Delta required to meet any applicable provision of state or federal law. In order to implement the First Type of Third-Party Transfer, Yuba reserves the right to notify DWR on or before September 1 to not back a specified quantity of Released Transfer Water into Project storage

after September 30 of a Water Accounting Year. DWR reserves the right on or before September 15 to notify Yuba that DWR will purchase the specified quantity of water at current year pricing.

2. Notwithstanding Paragraph 1, beginning in the 2016 Water Accounting Year, Yuba may transfer up to 10,000 acre-feet per year of Released Transfer Water to a Third Party that would otherwise have been made available to DWR and the Participating Contractors as Component 2 Water or Component 3 Water under the Agreement (referred to as the "Second Type of Third-Party Transfer"), subject to the following: (a) The Second Type of Third-Party Transfer can be diverted: (i) at the Freeport POD; (ii) at a point of diversion North of the Freeport POD, if authorized; (iii) at diversion facilities for Contra Costa Water District, if authorized, and if the diversion does not adversely affect the operation of the Projects during Balanced Conditions or at any other time that such diversion would directly or indirectly require the Projects to release water from storage or to reduce their diversion or rediversion of water from the Delta to provide or assure flow in the Delta required to meet any applicable provision of state or federal law; (b) Yuba will use reasonable efforts to transfer the Second Type of Third-Party Transfer during times when Yuba Storage Component water could not otherwise be accounted for as Delivered Transfer Water, as a way of minimizing to the extent feasible reductions in the quantities of Component 2 Water and Component 3 Water that Yuba makes available to DWR and the Participating Contractors; and (c) To the extent needed to preserve the benefit of the 80% payment for Component 2 Water (as provided in Section 26) that DWR and the Participating Contractors would have received that year but for a Second Type of Third-Party Transfer, Yuba will adjust the invoice for payments for Component 1 water at 80% for the

quantity of the Second Type of Third-Party Transfer. The following hypothetical example illustrates this provision (c) to preserve benefits of Component 2 pricing: if in a Critical Year, there would have been 90,000 acre-feet of Delivered Transfer Water (which would have been allocated 60,000 acre-feet for Component 1 and 30,000 acre-feet for Component 2), and Yuba carries out a Second Type of Third-Party Transfer in the amount of 10,000 acre-feet that was transferred during times when Yuba Storage Component water would have been accounted for as Delivered Transfer Water, then the payment for 50,000 acre-feet of Component 1 Water would be at $300 per acre foot, the payment for 10,000 acre-feet of Component 1 Water would be at $240 per acre foot (reflecting the 80% Component 2 Water) and the payment for 20,000 acre-feet of Component 2 Water would be at $240 per acre foot.

3. So long as a First Type of Third-Party Transfer or a Second Type of Third-Party Transfer is carried out consistent with the transfer water accounting provisions of Exhibit 1 for Released Transfer Water during Balanced Conditions, DWR and the Participating Contractors will not object based on the use of the transfer water accounting provisions of Exhibit 1 to such a transfer as not protective of DWR and the Participating Contractors as legal users of water. Except as provided in Section 11.F.2 above, Yuba may conduct Third-Party transfers provided that such transfers will not impair Yuba's ability to meet its obligations under this Agreement. Any agreement between DWR and a Participating Contractor to implement Amendment 5 will contain provisions that are consistent with this subsection. Yuba will provide DWR with ten days' advance notice of a Yuba water transfer to a Third Party. Yuba may transfer Storage Component water to a Third Party only in accordance with this Section 11.F.

4. So long as a transfer of Accrued Groundwater Storage Component water is carried out consistent with the transfer water accounting provisions of Exhibit 1 for Released Transfer Water during Balanced Conditions, Yuba may sell to a Third-Party any quantity of Accrued Groundwater Substitution Component water for which there is no agreement for DWR and the Participating Contractors to purchase pursuant to the negotiations described in Paragraphs 5 and 6 of Section 8.B. and DWR and the Participating Contractors will not object based on the use of the transfer water accounting provisions of Exhibit 1 to such a transfer as not protective of DWR and the Participating Contractors as legal users of water. Any agreement between DWR and the Participating Contractors to implement Amendment 5 will contain provisions that are consistent with this subsection. Yuba will provide DWR with ten days' advance notice of a Yuba water transfer to a Third-Party. Yuba may transfer Accrued Groundwater Component water to a Third Party only in accordance with this Section 11.F."

16. Section 11. Section 11 of the Agreement is further amended by adding at the end the following new subparagraphs:

"H. The Water Scheduling and Accounting Principles (Exhibit 1) of the Agreement: (a) are intended to provide long-term protection of legal users of water (including without limitation, DWR, Participating Contractors, the SWP and the CVP) from injury from Yuba water transfers; (b) apply throughout the term of the Agreement to Yuba water transfers made available under the Agreement; and (c) are not subject to adjustment due to any regulatory actions (including actions regarding instream flows) that

concern Yuba's water rights permits or licenses, a FERC Annual License, the FERC Long-Term License or a Water Quality Certification issued by the State Board in relation thereto. If there is a regulatory action that requires a change in the operation of the Yuba Project, then Yuba will promptly notify DWR and discuss with DWR and the Participating Contractors the extent to which such action would affect the ability of Yuba to deliver Storage Component or Groundwater Substitution Component water under this Agreement.

I. Yuba has no obligation to make available Storage Component or Groundwater Substitution Component water after September 30, 2020, and DWR and the Participating Contractors have no obligation to pay for such water, unless and until the Parties have entered into an amendment to the Agreement for that purpose."

17. Section 12. Section 12 of the Agreement is amended by deleting Subparagraph B. (Payments for Fixed Annual Costs and for Environmental Compliance) and Subparagraph C. (Payments for Adjustments in Groundwater O&M Costs).

18. New Sections 25 and 26. The Agreement is amended by adding at the end the following new sections:

> **"25. Storage Component Water.** Notwithstanding any other provision of the Agreement, the following provisions will apply to Storage Component water that is made available by Yuba:
>
> **A.** Following the effective date of Amendment 5 to the Agreement, Yuba will provide an invoice for payment by DWR to Yuba of $20,000,000 (Prepayment) by wire transfer instructions provided by Yuba. Payment of this invoice will be due no later than December 31, 2014. Yuba understands that DWR will make arrangements for Participating Contractors to provide the funding for this purpose to DWR. After DWR has obtained contractual commitments from Participating Contractors to fund the Prepayment, then DWR will process one or more wire transfers to Yuba of partial funding of the Prepayment as funds are received by DWR from the Participating Contractors until the full amount of the Prepayment has been made. The Prepayment will be credited by Yuba toward payments due on invoices for Storage Component water that has been accounted for as Delivered Transfer Water that is made available starting October 1, 2015. In the event that there are Prepayment funds that have not been fully credited for Storage Component water that has been accounted for as Delivered Transfer Water that is made available through September 30, 2020, then these remaining funds will be: (1) applied to future payments due by DWR to Yuba for Storage Component Delivered Transfer Water delivered on or after October 1, 2020 under a subsequent amendment between the Parties at the prices provided in Section

26 of the Agreement, (as added by Amendment 5); or (2) if there is no such amendment, refunded by Yuba to DWR.

B. DWR will purchase under the terms set forth in Amendment 5 to the Agreement, all Storage Component water that Yuba makes available from October 1, 2015 through September 30, 2020 that is accounted for as Delivered Transfer Water under the accounting rules set forth in Exhibit 1 to the Agreement, except that DWR is not required to pay for Storage Component water that Yuba transfers to a Third-Party as provided in Section 11.F. of the Agreement, as amended. The Parties expect that DWR will enter into agreements with the Participating Contractors to provide funding for such payments.

C. Subject to the provisions of Section 11 of the Agreement, as amended, Yuba will make the following quantities of Storage Component water available in each Water Accounting Year from January 1, 2016 through December 31, 2020.

1. Component 1. 60,000 acre-feet per year of Component 1 Water.

2. Component 2. 15,000 acre-feet in a Final Classification Dry Year and 30,000 acre-feet in a Final Classification Critical Year of Component 2 Water.

3. Component 3. Any quantity of Storage Component water in excess of the amount of Component 1 and Component 2 Water will be considered Component 3 Water. Yuba will optimize to the extent feasible the operation of the

Yuba Project to make Component 1, 2 and 3 Water available.

26. Payments. In accordance with Section 15 of the Agreement, the Parties have met, conferred and agreed upon the following pricing for Storage Component Water made available from October 1, 2015 through September 30, 2020. DWR will make the following payments to Yuba for Storage Component water made available during this time period, except that, the payment for Component 2 Water will be 80% of these amounts:

A. Wet Year. $50 per acre foot in a Final Classification Wet Water Year.

B. Above-Normal Year. $100 per acre foot in a Final Classification Above-Normal Water Year.

C. Below-Normal Year. $150 per acre foot in a Final Classification Below-Normal Water Year.

D. Dry-Year. $200 per acre foot in a Final Classification Dry Water Year (except as provided in subsection 6, below).

E. Critical Year. $300 per acre foot in a Final Classification Critical Water Year (except as provided in subsection 6, below).

F. Consecutive Dry or Critical Years. $350 per acre foot in two or more consecutive Final Classification Dry Water Years (or a Dry Year following a Critical Year) or in two or more consecutive Final Classification Critical Water Years."

19. **DWR Agreements with Participating Contractors.** Nothing in the terms of an agreement between DWR and the Participating Contractors that implements this Amendment will be inconsistent with DWR's or Yuba's obligations under this Amendment.

20. Effective Date of this Amendment. Section 25.A. of the Agreement (Prepayment) will become effective upon execution by the Parties of this Amendment. Section 26 of the Agreement (Payments) will become effective October 1, 2015. The remaining terms of the Amendment will become effective January 1, 2015.

21. Effect of this Amendment. All of the remaining provisions of the Agreement that are not changed by this Amendment will remain in full force and effect. Nothing in this Amendment affects the current term of the Agreement, which is through December 31, 2025.

22. Environmental Compliance. On October 23, 2007, Yuba's Board of Directors adopted Resolution No. 2007-23 and, as the lead agency under CEQA, certified the Final Environmental Impact Report/Environmental Impact Statement for the Proposed Lower Yuba River Accord (State Clearinghouse #2005062111) (Final EIR). DWR approved the Final EIR as a responsible agency under CEQA. Yuba will be responsible for complying with CEQA to the extent required for Yuba to transfer water to a Third Party under this Agreement.

The foregoing is hereby agreed to by the Parties.

Approved as to legal form and sufficiency:

STATE OF CALIFORNIA
DEPARTMENT OF WATER
RESOURCES

_____
Cathy Crothers, Chief Counsel

_____
Mark W. Cowin, Director

_____, 2014

_____, 2014

Approved as to legal form and sufficiency:

YUBA COUNTY WATER AGENCY
A Political Subdivision of the
State of California

_____
Paul M Bartkiewicz,
General Legal Counsel

_____
Chairman of the Board of Directors

_____, 2014

_____, 2014

Attest:

_____
Secretary

_____, 2014

Appendix G: Beaumont Basin Judgment

ORIGINAL COPY

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NO FILING FEE REQUIRED PER GOVERNMENT CODE, SEC. 6103

FILED
SUPERIOR COURT OF CALIFORNIA
COUNTY OF RIVERSIDE

FEB - 4 2004

Attorneys for Plaintiff, SAN TIMOTEO WATERSHED MANAGEMENT AUTHORITY

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF RIVERSIDE, RIVERSIDE COURT

SAN TIMOTEO WATERSHED MANAGEMENT AUTHORITY, a public agency,

Plaintiff,

vs.

CITY OF BANNING, a municipal corporation; BEAUMONT-CHERRY VALLEY WATER DISTRICT, an irrigation district; YUCAIPA VALLEY WATER DISTRICT, a county water district; PLANTATION ON THE LAKE LLC, a California limited liability company; SHARONDALE MESA OWNERS ASSOCIATION, an unincorporated association; SOUTH MESA MUTUAL WATER COMPANY, a mutual water company; CALIFORNIA OAK VALLEY GOLF AND RESORT LLC, a California limited liability company; OAK VALLEY PARTNERS LP, a Texas limited partnership; SOUTHERN CALIFORNIA SECTION OF THE PROFESSIONAL GOLFERS ASSOCIATION OF AMERICA, a California corporation; SUNNY-CAL EGG AND POULTRY COMPANY, a California corporation; MANHEIM, MANHEIM & BERMAN, a California General Partnership; WALTER M. BECKMAN, individually and as Trustee of the BECKMAN FAMILY TRUST dated December 11, 1990; THE ROMAN CATHOLIC BISHOP of San Bernardino,

CASE NO. RIC 389197

JUDGMENT PURSUANT TO STIPULATION ADJUDICATING GROUNDWATER RIGHTS IN THE BEAUMONT BASIN

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a California corporation; MERLIN PROPERTIES, LLC; LEONARD M. STEARNS and DOROTHY D. STEARNS, individually and as Trustees of the LEONARD M. STEARNS FAMILY TRUST OF 1991; and DOES 1 through 500, inclusive,

Defendants.

I. INTRODUCTION

1. Pleadings, Parties and Jurisdiction

The complaint herein was filed on February 20, 2003, seeking an adjudication of water rights, injunctive relief and the imposition of a physical solution. The defaults of certain defendants have been entered, and certain other defendants dismissed. Other than defendants who have been dismissed or whose defaults have been entered, all defendants have appeared herein. This Court has jurisdiction of the subject matter of this action and of the parties herein.

2. Stipulation for Judgment

Stipulation for Entry of Judgment has been filed by and on behalf of all defendants who have appeared herein.

3. Definitions

As used in this Judgment, these terms shall have the following meanings:

A. Appropriator or Appropriator Parties: the pumpers identified in Exhibit "C" attached hereto.

B. Appropriator's Production Right: consists of an Appropriator's share of Operating Yield, plus (1) any water acquired by an Appropriator from an Overlying Producer or other Appropriator pursuant to this Judgment, (2) any water

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withdrawn from the Appropriator's storage account, (3) and New Yield created by the Appropriator.

C. Appropriative Water: the amount of Safe Yield remaining after satisfaction of Overlying Water Rights.

D. Appropriative Water Right: each Appropriator's share of Appropriative Water, such share expressed as a percentage as shown on Exhibit "C".

E. Beaumont Basin or Beaumont Storage Unit: the area situated within the boundaries shown on Exhibit "A" attached hereto.

F. Conjunctive Use: the storage of water in a Groundwater Basin for use at a later time.

G. Groundwater: water beneath the surface of the ground within the zone below the water table in which soil is saturated with water.

H. Groundwater Basin: an area underlain by one or more permeable formations capable of furnishing a substantial water supply.

I. Groundwater Storage Agreement: a standard form of written agreement between the Watermaster and any Person requesting the storage of Supplemental Water.

J. Groundwater Storage Capacity: the space available in a Groundwater Basin that is not utilized for storage or regulation of Safe Yield and is reasonably available for Stored Water and Conjunctive Use.

K. Minimal Producer: any Producer who pumps 10 or fewer acre feet of Groundwater from the Beaumont Basin per year.

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L. New Yield: increases in yield in quantities greater than historical amounts from sources of supply including, but not limited to, capture of available storm flow, by means of projects constructed after February 20, 2003, as determined by the Watermaster.

M. Operating Yield: the maximum quantity of water which can be produced annually by the Appropriators from the Beaumont Basin, which quantity consists of Appropriative Water plus Temporary Surplus.

N. Overdraft: a condition wherein the total annual production from a Groundwater Basin exceeds the Safe Yield thereof.

O. Overlying Parties: the Persons listed on Exhibit "B", who are owners of land which overlies the Beaumont Basin and have exercised Overlying Water Rights to pump therefrom. Overlying Parties include successors in interest and assignees.

P. Overlying Water Rights: the quantities decreed to Overlying Parties in Column 4 of Exhibit "B" to this Judgment.

Q. Overproduction: by an Appropriator, measured by an amount equal to the Appropriator's actual annual production minus the Appropriator's Production Right. By a new overlying producer, an amount equal to what the overlying producer pumped during the year.

R. Party (Parties): any Person(s) named in this action, or who has intervened, or has become subject to this Judgment either through stipulation, trial or otherwise

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S. Person: any individual, partnership, association, corporation, governmental entity or agency, or other organization.

T. Physical Solution: the physical solution set forth in Part V of this Judgment.

U. Produce, Producing, Production, Pump or Pumping: the extraction of groundwater.

V. Producer or Pumper: any Person who extracts groundwater.

W. Recycled Water: has the meaning provided in Water Code Section 13050(n) and includes other nonpotable water for purposes of this Judgment.

X. Safe Yield: the maximum quantity of water which can be produced annually from a Groundwater Basin under a given set of conditions without causing a gradual lowering of the groundwater level leading eventually to depletion of the supply in storage. The Safe Yield of the Beaumont Basin is 8650 acre feet per year in each of the ten (10) years following entry of this Judgment.

Y. San Timoteo Watershed Management Authority: a joint powers public agency whose members are the Beaumont-Cherry Valley Water District, the City of Beaumont, the South Mesa Mutual Water Company and the Yucaipa Valley Water District.

Z. Stored Water: Supplemental Water stored in the Beaumont Basin pursuant to a Groundwater Storage Agreement with the Watermaster.

AA. Supplemental Water: water imported into the

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Beaumont Basin from outside the Beaumont Basin including, without limitation, water diverted from creeks upstream and tributary to Beaumont Basin and water which is recycled and useable within the Beaumont Basin.

BB. Temporary Surplus: the amount of groundwater that can be pumped annually in excess of Safe Yield from a Groundwater Basin necessary to create enough additional storage capacity to prevent the waste of water.

CC. Watermaster: the Person appointed by the Court to administer and enforce the Physical Solution.

4. List of Exhibits

The following exhibits are attached to this Judgment and made a part hereof:

Exhibit "A" -- "Location Map of Beaumont Basin"
Exhibit "B" -- "Overlying Owners and Their Water Rights"
Exhibit "C" -- "Appropriators and Their Water Rights"
Exhibit "D" -- "Legal Description of Lands of the Overlying Parties"
Exhibit "E" -- "Location of Overlying Producer Parcels and Boundary of the Beaumont Basin"

II. INJUNCTIONS

1. Injunction Against Unauthorized Production of Beaumont Basin Water

Each party herein is enjoined, as follows:

A. Overlying Parties: Each defendant who is an Overlying Party, and its officers, agents, employees, successors and assigns, is hereby enjoined and restrained from producing groundwater from the Beaumont Basin in any five-year period hereafter in excess of five times the share of the Safe Yield assigned to the Overlying Parties as set

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forth in Column 4 of Exhibit "B", as more fully described in the Physical Solution.

B. Appropriator Parties: Each defendant who is an Appropriator Party, and its officers, agents, employees, successors and assigns, is hereby enjoined and restrained from producing groundwater from the Beaumont Basin in any year hereafter in excess of such party's Appropriator's Production Right, except as additional annual Production may be authorized by the provisions of the Physical Solution.

2. Injunction Against Unauthorized Storage or Withdrawal of Stored Water

Each and every Party, and its officers, agents, employees, successors and assigns, is hereby enjoined and restrained from storing Supplemental Water in the Beaumont Basin for withdrawal, or causing withdrawal of water stored by that Party, except pursuant to the terms of a written Groundwater Storage Agreement with the Watermaster and in accordance with Watermaster Rules and Regulations. Any Supplemental Water stored in the Beaumont Basin, except pursuant to a Groundwater Storage Agreement, shall be deemed abandoned and not classified as Stored Water.

III. DECLARATION AND ADJUSTMENT OF RIGHTS

1. Overlying Rights

The Overlying Parties are currently exercising Overlying Water Rights in the Beaumont Basin. As shown on Exhibit "B", the aggregate Projected Maximum Production of water from the Beaumont Basin pursuant to Overlying Water Rights is 8650 acre feet and the Overlying Water Rights are individually decreed, in Column 4 of Exhibit "B", for each Overlying Party. The Overlying Parties

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shall continue to have the right to exercise their respective Overlying Water Right as set forth in Column 4 of Exhibit "B" except to the extent their respective properties receive water service from an Appropriator Party, as contemplated by Paragraph III.3 of this Judgment.

2. Appropriator's Share of Operating Yield

Each Appropriator Party's share of Operating Yield is shown on Exhibit "C". Notwithstanding any other provision of this Judgment, each Appropriator Party may use its Appropriator's Production Right anywhere within its service area.

3. Adjustment of Rights

A. The Overlying Parties shall have the right to exercise their respective Overlying Water Rights except as provided in this Paragraph 3.

B. To the extent any Overlying Party requests, and uses its Exhibit "B", Column 4 water to obtain water service from an Appropriator Party, an equivalent volume of potable groundwater shall be earmarked by the Appropriator Party which will serve the Overlying Party, up to the volume of the Overlying Water Right as reflected in Column 4 of Exhibit "B" attached hereto, for the purpose of serving the Overlying Party. The intent of this provision is to ensure that the Overlying Party is given credit towards satisfying the water availability assessment provisions of Government Code, Section 66473.7 et seq. and Water Code, Section 10910 et seq. or other similar provisions of law, equal to the amount of groundwater earmarked hereunder.

C. When an Overlying Party receives water service as

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provided for in subparagraph III.3.B the Overlying Party shall forebear the use of that volume of the Overlying Water Right earmarked by the Appropriator Party. The Appropriator Party providing such service shall have the right to produce the volume of water foregone by the Overlying Party, in addition to other rights otherwise allocated to the Appropriator Party.

D. Should the volume of the Overlying Water Right equal or exceed the volume of potable groundwater earmarked as provided in subparagraph 3.B, the Appropriator Party which will serve the Overlying Party shall (i) impose potable water charges and assessments upon the Overlying Party and its successors in interest at the rates charged to the then-existing regular customers of the Appropriator Party, and (ii) not collect from such Overlying Party any development charge that may be related to the importation of water into the Beaumont Basin. The Appropriator Party which will serve the Overlying Party pursuant to Subparagraph III.3.B shall also consider, and negotiate in good faith regarding, the provision of a meaningful credit for any pipelines, pump stations, wells or other facilities that may exist on the property to be served.

E. In the event an Overlying Party receives Recycled Water from an Appropriator Party to serve an overlying use served with groundwater, the Overlying Water Right of the Overlying Party shall not be diminished by the receipt and use of such Recycled Water. Recycled Water provided by an Appropriator Party to an Overlying Party shall satisfy the

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criteria set forth in the California Water Code including, without limitation, the criteria set forth in Water Code Sections 13550 and 13551. The Appropriator Party which will serve the Recycled Water shall have the right to use that portion of the Overlying Water Right of the Overlying Party offset by the provision of Recycled Water service pursuant to the terms of this subparagraph; provided, however, that such right of use by the Appropriator Party shall no longer be valid if the Recycled Water, provided by the Appropriator Party to the Overlying Party, does not satisfy the requirements of Sections 13550 and 13551 and the Overlying Party ceases taking delivery of such Recycled Water.

F. Nothing in this Judgment is intended to impair or adversely affect the ability of an Overlying Party to enter into annexation or development agreements with any Appropriator Party.

G. Oak Valley Partners LP ("Oak Valley") is developing its property pursuant to Specific Plans 216 and 216A adopted by the County of Riverside ("County") in May 1990, and Specific Plan 318 adopted by the County in August, 2001, (Specific Plans 216, 216A and 318 are collectively referred to as the "Specific Plans"). The future water supply needs at build-out of the Specific Plans will greatly exceed Oak Valley's Projected Maximum Production, as reflected in Exhibit "B" to the Judgment, and may be as much as 12,811 acre feet per year. Oak Valley has annexed the portion of its property now within the City of Beaumont into the Beaumont-Cherry Valley Water District ("BCVWD"), and is in

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the process of annexing the remainder portion of its property into the Yucaipa Valley Water District ("YVWD"), in order to obtain retail water service for the development of the Oak Valley property pursuant to the Specific Plans (for purposes of this subparagraph BCVWD and YVWD are collectively referred to as the "Water Districts", and individually as a "Water District"). YVWD covenants to use its best efforts to finalize the annexation of the Oak Valley property within the Calimesa City limits. Oak Valley, for itself and its successors and assigns, hereby agrees, by this stipulation and upon final annexation of its property by YVWD, to forbear from claiming any future, unexercised, overlying rights in excess of the Projected Maximum Production of Exhibit "B" of 1806 acre feet per year. As consideration for the forbearance, the Water Districts agree to amend their respective Urban Water Management Plans ("UWMP") in 2005 as follows: BCVWD agrees that 2,400 acre feet per year of projected water demand shall be included for the portion of Oak Valley to be served by BCVWD in its UWMP, and YVWD agrees to include 8,000 acre feet per year of projected water demand as a projected demand for the portion of Oak Valley to be served by YVWD in its UWMP by 2025. The Water Districts agree to use their best judgment to accurately revise this estimate to reflect the projected water demands for the UWMP prepared in 2010. Furthermore, the Water Districts further agree that, in providing water availability assessments prior to 2010, as required by Water Code §10910 and water supply verifications as required by Government Code §§66455.3 and

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66473.7, or any similar statute, and in maintaining their respective UWMP, each shall consider the foregoing respective projected water demand figures for Oak Valley as proposed water demands. The intent of the foregoing requirements is to ensure that Oak Valley is credited for the forbearance of its overlying water rights and is fully accounted for in each Water District's UWMP and overall water planning. The Water Districts' actions in performance of the foregoing planning obligations shall not create any right or entitlement to, or priority or allocation in, any particular water supply source, capacity or facility, or any right to receive water service other than by satisfying the applicable Water District's reasonable requirements relating to application for service. Nothing in this subparagraph G is intended to affect or impair the provision of earmarked water to Overlying Parties who request and obtain water service from Appropriator Parties, as set forth in subparagraph III.3.B, above.

H. Persons who would otherwise qualify as Overlying Producers based on an interest in land lying within the City of Banning's service area shall not have the rights described in this Paragraph III.3.

4. Exemption for Minimal Producers

Unless otherwise ordered by the Court, Minimal Producers are exempt from the provisions of this Judgment.

IV. CONTINUING JURISDICTION

Full jurisdiction, power and authority is retained and reserved to the Court for purposes of enabling the Court, upon

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application of any Party, by a motion noticed for at least a 30-day period (or consistent with the review procedures of Paragraph VII.6 herein, if applicable), to make such further or supplemental order or directions as may be necessary or appropriate for interim operation of the Beaumont Basin before the Physical Solution is fully operative, or for interpretation, or enforcement or carrying out of this Judgment, and to modify, amend or amplify any of the provisions of this Judgment or to add to the provisions hereof consistent with the rights herein decreed; except that the Court's jurisdiction does not extend to the redetermination of (a) Safe Yield during the first ten years of operation of the Physical Solution, and (b) the fraction of the share of Appropriative Water of each Appropriator.

V. THE PHYSICAL SOLUTION

1. Purpose and Objective

In accordance with the mandate of Section 2 of Article X of the California Constitution, the Court hereby adopts, and orders the parties to comply with, a Physical Solution. The purpose of the Physical Solution is to establish a legal and practical means for making the maximum reasonable beneficial use of the waters of Beaumont Basin, to facilitate conjunctive utilization of surface, ground and Supplemental Waters, and to satisfy the requirements of water users having rights in, or who are dependent upon, the Beaumont Basin. Such Physical Solution requires the definition of the individual rights of all Parties within the Beaumont Basin in a manner which will fairly allocate the native water supplies and which will provide for equitable sharing of costs of Supplemental Water.

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2. Need for Flexibility

The Physical Solution must provide maximum flexibility and adaptability in order that the Watermaster and the Court may be free to use existing and future technological, social, institutional and economic options. To that end, the Court's retained jurisdiction shall be utilized, where appropriate, to supplement the discretion granted herein to the Watermaster.

3. Production and Storage in Accordance With Judgment

This Judgment, and the Physical Solution decreed herein, address all Production and Storage within the Beaumont Basin. Because the Beaumont Basin is at or near a condition of Overdraft, any Production outside the framework of this Judgment and Physical Solution will potentially damage the Beaumont Basin, injure the rights of all Parties, result in the waste of water and interfere with the Physical Solution. The Watermaster shall bring an action or a motion to enjoin any Production that is not in accordance with the terms of this Judgment.

4. General Pattern of Operation

One fundamental premise of the adjudication is that all Producers shall be allowed to pump sufficient water from the Beaumont Basin to meet their respective requirements. Another fundamental premise of the adjudication is that Overlying Parties who pump no more than the amount of their Overlying Water Right as shown on Column 4 of Exhibit "B" hereto, shall not be charged for the replenishment of the Beaumont Basin. To the extent that pumping exceeds five (5) times the share of the Safe Yield assigned to an Overlying Party (Column 4 of Exhibit "B") in any five (5) consecutive years, or the share of Operating Yield

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Right of each Appropriator Party, each such Party shall provide funds to enable the Watermaster to replace such Overproduction.

5. Use of Available Groundwater Storage Capacity

A. There exists in the Beaumont Basin a substantial amount of available Groundwater Storage Capacity. Such Capacity can be reasonably used for Stored Water and Conjunctive Use and may be used subject to Watermaster regulation to prevent injury to existing Overlying and Appropriative water rights, to prevent the waste of water, and to protect the right to the use of Supplemental Water in storage and Safe Yield of the Beaumont Basin.

B. There shall be reserved for Conjunctive Use a minimum of 200,000 acre feet of Groundwater Storage Capacity in the Beaumont Basin provided that such amount may be reduced as necessary to prevent injury to existing water rights or existing uses of water within the Basin, and to prevent the waste of water. Any Person may make reasonable beneficial use of the Groundwater Storage Capacity for storage of Supplemental Water; provided, however, that no such use shall be made except pursuant to a written Groundwater Storage Agreement with the Watermaster. The allocation and use of Groundwater Storage Capacity shall have priority and preference for Producers within the Beaumont Basin over storage for export. The Watermaster may, from time-to-time, redetermine the available Groundwater Storage Capacity.

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VI. ADMINISTRATION

1. Administration and Enforcement by Watermaster

The Watermaster shall administer and enforce the provisions of this Judgment and any subsequent order or instructions of the Court.

2. Watermaster Control

The Watermaster is hereby granted discretionary powers to develop and implement a groundwater management plan and program for the Beaumont Basin, which plan shall be filed with and shall be subject to review and approval by, the Court, and which may include water quantity and quality considerations and shall reflect the provisions of this Judgment. Except for the exercise by Overlying Parties of their respective Rights described in Column 4 of Exhibit "B" hereto in accordance with the provisions of the Physical Solution, groundwater extractions and the replenishment thereof, and the storage of Supplemental Water, shall be subject to procedures established and administered by the Watermaster. Such procedures shall be subject to review by the Court upon motion by any Party.

3. Watermaster Standard of Performance

The Watermaster shall, in carrying out its duties and responsibilities herein, act in an impartial manner without favor or prejudice to any Party or purpose of use.

4. Watermaster Appointment

The Watermaster shall consist of a committee composed of persons nominated by the City of Banning, the City of Beaumont, the Beaumont-Cherry Valley Water District, the South Mesa Mutual Water Company and the Yucaipa Valley Water District, each of

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which shall have the right to nominate one representative to the Watermaster committee who shall be an employee of or consultant to the nominating agency. Each such nomination shall be made in writing, served upon the other parties to this Judgment and filed with the Court, which shall approve or reject such nomination. Each Watermaster representative shall serve until a replacement nominee is approved by the Court. The nominating agency shall have the right to nominate that representative's successor.

5. Powers and Duties of the Watermaster

Subject to the continuing supervision and control of the Court, the Watermaster shall have and may exercise the following express powers, and shall perform the following duties, together with any specific powers, authority, and duties granted or imposed elsewhere in this Judgment or hereafter ordered or authorized by the Court in the exercise of its continuing jurisdiction:

A. Rules and Regulations: The adoption of appropriate rules and regulations for the conduct of Watermaster affairs, copies of which shall be provided to all interested parties.

B. Wellhead Protection and Recharge: The identification and management of wellhead protection areas and recharge areas.

C. Well Abandonment: The administration of a well abandonment and well destruction program.

D. Well Construction: The development of minimum well construction specifications and the permitting of new wells.

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E. Mitigation of Overdraft: The mitigation of conditions of uncontrolled overdraft.

F. Replenishment: The acquisition and recharge of Supplemental Water.

G. Monitoring: The monitoring of groundwater levels, ground levels, storage, and water quality.

H. Conjunctive Use: The development and management of conjunctive-use programs.

I. Local Projects: The coordination of construction and operation, by local agencies, of recharge, storage, conservation, water recycling, extraction projects and any water resource management activity within or impacting the Beaumont Basin.

J. Land Use Plans: The review of land use plans and coordination with land use planning agencies to mitigate or eliminate activities that create a reasonable risk of groundwater contamination.

K. Acquisition of Facilities: The purchase, lease and acquisition of all necessary real and personal property, including facilities and equipment.

L. Employment of Experts and Agents: The employment or retention of such technical, clerical, administrative, engineering, accounting, legal or other specialized personnel and consultants as may be deemed appropriate. The Watermaster shall maintain records allocating the cost of such services as well as all other expenses of Watermaster administration.

M. Measuring Devices: Except as otherwise provided

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by agreement the Watermaster shall install and maintain in good operating condition, at the cost of the Watermaster, such necessary measuring devices or meters as Watermaster may deem appropriate. Such devices shall be inspected and tested as deemed necessary by the Watermaster and the cost thereof borne by the Watermaster. Meter repair and retesting will be a Producer expense.

N. Assessments: The Watermaster is empowered to levy and collect the following assessments:

(1) Annual Replenishment Assessments

The Watermaster shall levy and collect assessments in each year, in amounts sufficient to purchase replenishment water to replace Overproduction by any Party.

(2) Annual Administrative Assessments

a. Watermaster Expenses: The expenses of administration of the Physical Solution shall be categorized as either "General Watermaster Administration Expenses", or "Special Project Expenses".

i. General Watermaster Administration Expenses: shall include office rent, labor, supplies, office equipment, incidental expenses and general overhead. General Watermaster Administration Expenses shall be assessed by the Watermaster equally against the Appropriators who have appointed representatives to the Watermaster.

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ii. Special Project Expenses: shall include special engineering, economic or other studies, litigation expenses, meter testing or other major operating expenses. Each such project shall be assigned a task order number and shall be separately budgeted and accounted for. Special Project Expenses shall be allocated to the Appropriators, or portion thereof, on the basis of benefit.

O. Investment of Funds; Borrowing: The Watermaster may hold and invest Watermaster funds as authorized by law, and may borrow, from time-to-time, amounts not exceeding annual receipts.

P. Contracts: The Watermaster may enter into contracts for the performance of any of its powers.

Q. Cooperation With Other Agencies: The Watermaster may act jointly or cooperate with other local, state and federal agencies.

R. Studies: The Watermaster may undertake relevant studies of hydrologic conditions and operating aspects of the management program for the Beaumont Basin.

S. Groundwater Storage Agreements: The Watermaster shall adopt uniform rules and a standard form of agreement for the storage of Supplemental Water, provided that the activities undertaken pursuant to such agreements do not injure any Party.

T. Administration of Groundwater Storage Capacity: Except for the exercise by the Overlying Parties of their

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respective Overlying Water Rights described in Part III, above, in accordance with the provisions of the Physical Solution, all Groundwater Storage Capacity in the Beaumont Basin shall be subject to the Watermaster's rules and regulations, which regulations shall ensure that sufficient storage capacity shall be reserved for local projects. Any Person or entity may apply to the Watermaster to store water in the Beaumont Basin.

U. Accounting for Stored Water: The Watermaster shall calculate additions, extractions and losses and maintain an annual account of all stored water in the Beaumont Basin, and any losses of water supplies or Safe Yield resulting from such stored water.

V. Accounting for New Yield: Recharge of the Beaumont Basin with New Yield water shall be credited to the Party that creates the New Yield. The Watermaster shall make an independent scientific assessment of the estimated New Yield created by each proposed project. New Yield will be allocated on an annual basis, based upon monitoring data and review by the Watermaster.

W. Accounting for Acquisitions of Water Rights: The Watermaster shall maintain an accounting of acquisitions by Appropriators of water otherwise subject to Overlying Water Rights as the result of the provision of water service thereto by an Appropriator.

X. Annual Administrative Budget: The Watermaster shall prepare an annual administrative budget for public review, and shall hold a public hearing on each such budget

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prior to adoption. The budget shall be prepared in sufficient detail so as to make a proper allocation of the expenses and receipts. Expenditures within budgeted items may thereafter be made by the Watermaster as a matter of course.

Y. Redetermining the Safe Yield: The Safe Yield of the Beaumont Basin shall be redetermined at least every 10 years beginning 10 years after the date of entry of this Judgment.

6. Reports and Accounting

(a) Production Reports: Each Pumper shall periodically file, pursuant to Watermaster rules and regulations, a report showing the total production of such Pumper from each well during the preceding report period, and such additional information as the Watermaster may reasonably require.

(b) Watermaster Report and Accounting: The Watermaster shall prepare an annual report of the preceding year's operations, which shall include an audit of all assessments and Watermaster expenditures.

7. Replenishment

Supplemental Water may be obtained by the Watermaster from any source. The Watermaster shall seek the best available quality of Supplemental Water at the most reasonable cost for recharge in the Basin. Sources may include, but are not limited to:

(a) Recycled Water;

(b) State Water Project Water;

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(c) Other imported water.

Replenishment may be accomplished by any reasonable method including:

(a) Spreading and percolation, or injection of water in existing or new facilities; and/or

(b) In-lieu deliveries for direct surface use, in lieu of groundwater extraction.

VII. MISCELLANEOUS PROVISIONS

1. Designation of Address for Notice and Service

Each Party shall designate, in writing to the plaintiff, the name and address to be used for purposes of all subsequent notices and service herein, such designation to be delivered to the plaintiff within 30 days after the Judgment has been entered. The plaintiff shall, within 45 days after judgment has been entered, file the list of designees with the Court and serve the same on the Watermaster and all Parties. Such designation may be changed from time-to-time by filing a written notice of such change with the Watermaster. Any Party desiring to be relieved of receiving notices of Watermaster activity may file a waiver of notice on a form to be provided by the Watermaster. The Watermaster shall maintain, at all times, a current list of Parties to whom notices are to be sent and their addresses for purposes of service. The Watermaster shall also maintain a full current list of names and addresses of all Parties or their successors, as filed herein. Copies of such lists shall be available to any Person. If no designation is made, a Party's designee shall be deemed to be, in order of priority: (i) the Party's attorney of record; or (ii) if the Party does not have an

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attorney of record, the Party itself at the address on the Watermaster list.

2. Intervention After Judgment

Any Person who is neither a Party to this Judgment nor a successor or assignee of a Party to this Judgment may seek to become a party to this Judgment by filing a petition in intervention.

3. Interference with Pumping

Nothing in this judgment shall be deemed to prevent any party from seeking judicial relief against any other party whose pumping activities constitute an unreasonable interference with the complaining party's ability to extract groundwater.

4. Successors and Assigns

This Judgment and all provisions herein shall be binding on and shall inure to the benefit of the heirs, executors, administrators, successors and assigns of the parties hereto.

5. Severability

The provisions of this Judgment are severable. If any provision of this Judgment is held by the Court to be illegal, invalid or unenforceable, that provision shall be excised from the Judgment. The remainder of the terms of the Judgment shall remain in full force and effect and shall in no way be affected, impaired or invalidated by such excision. This Judgment shall be reformed to add, in lieu of the excised provision, a provision as similar in terms to the excised provision as may be possible and be legal, valid and enforceable.

6. Review Procedures

Any action, decision, rule or procedure of the Watermaster

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pursuant to this Judgment shall be subject to review by the Court on its own motion or on timely motion by any Party, as follows:

A. Effective Date of Watermaster Action: Any order, decision or action of the Watermaster pursuant to this Judgment on noticed specific agenda items shall be deemed to have occurred on the date of the order, decision or action.

B. Notice of Motion: Any Party may, by a regularly-noticed motion, petition the Court for review of the Watermaster's action or decision pursuant to this Judgment. The motion shall be deemed to be filed when a copy, conformed as filed with the Court, has been delivered to the Watermaster, together with the service fee established by the Watermaster sufficient to cover the cost to photocopy and mail the motion to each Party. The Watermaster shall prepare copies and mail a copy of the motion to each Party or its designee according to the official service list which shall be maintained by the Watermaster according to Part VII, paragraph 1, above. A Party's obligation to serve the notice of a motion upon the Parties is deemed to be satisfied by filing the motion as provided herein. Unless ordered by the Court, any petition shall not operate to stay the effect of any Watermaster action or decision which is challenged.

C. Time for Motion: A motion to review any Watermaster action or decision shall be filed within 90 days after such Watermaster action or decision, except that motions to review Watermaster assessments hereunder shall be filed within 30 days of mailing of notice of the assessment.

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D. De Novo Nature of Proceeding: Upon filing of a petition to review a Watermaster action, the Watermaster shall notify the Parties of a date when the Court will take evidence and hear argument. The Court's review shall be de novo and the Watermaster decision or action shall have no evidentiary weight in such proceeding.

E. Decision: The decision of the Court in such proceedings shall be an appealable Supplemental Order in this case. When the same is final, it shall be binding upon the Watermaster and the Parties.

Dated: FEB - 4 2004

GARY TRANBARGER

JUDGE OF THE SUPERIOR COURT

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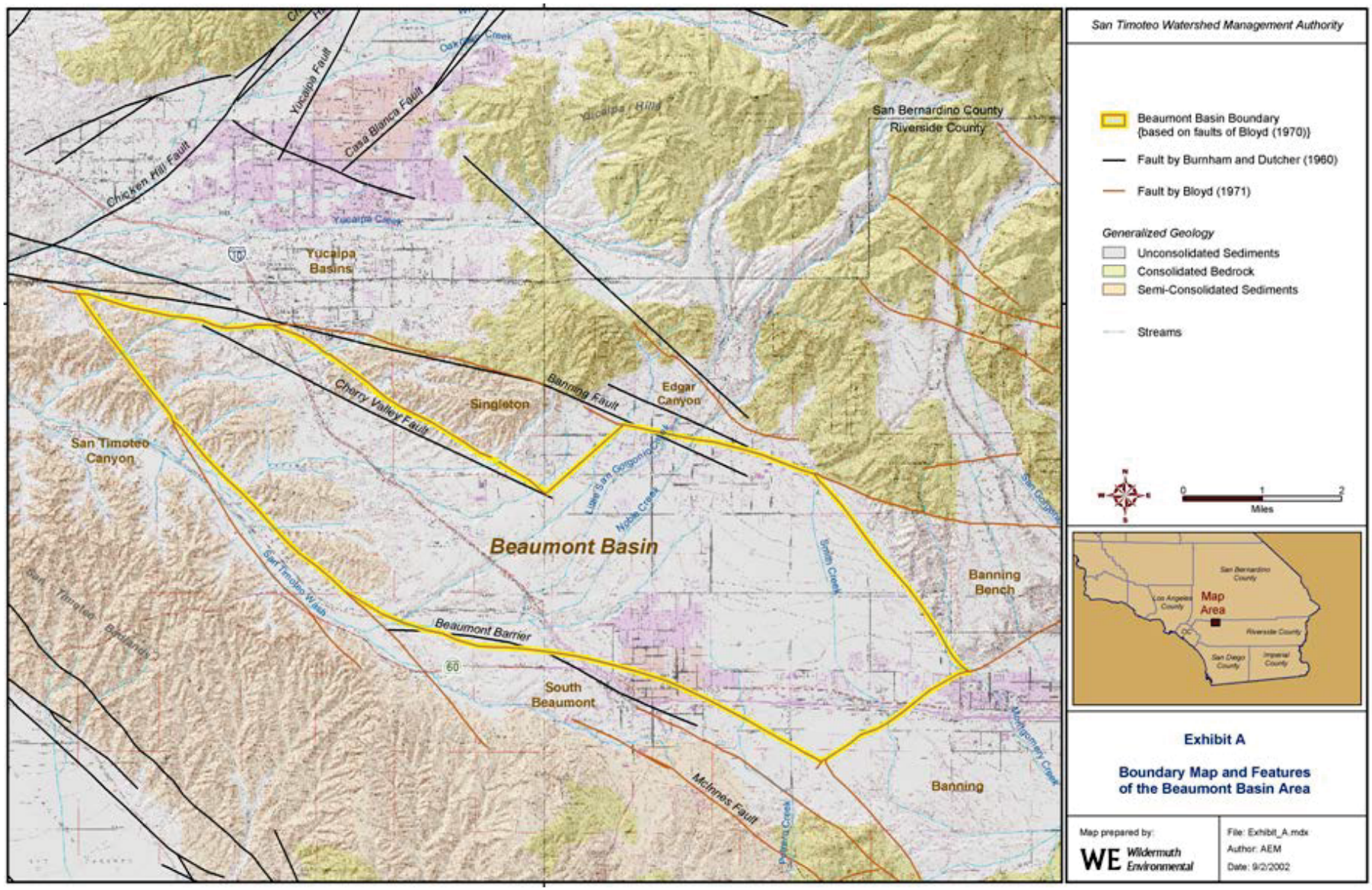
San Timoteo Watershed Management Authority
Beaumont Basin Boundary
(based on faults of Bloyd (1970))
Fault by Burnham and Dutcher (1960)
Fault by Bloyd (1971)
Generalized Geology
Unconsolidated Sediments
Consolidated Bedrock
Semi-Consolidated Sediments
Streams
0
1
2
Miles
Map Area
San Bernardino County
Riverside County
Los Angeles County
San Diego County
Imperial County
Exhibit A
Boundary Map and Features of the Beaumont Basin Area
Map prepared by:
Wildermuth Environmental
File: Exhibit_A.mdx
Author: AEM
Date: 9/2/2002
Yucaipa Fault
Casa Blanca Fault
Chicken Hill Fault
Yucaipa Hills
San Bernardino County
Riverside County
Yucaipa Creek
Yucaipa Basins
Cherry Valley Fault
Banning Fault
Singleton
Edgar Canyon
San Timoteo Canyon
Lower San Gorgonio Creek
Noble Creek
Beaumont Basin
San Timoteo Badlands
San Timoteo Wash
Beaumont Barrier
Smith Creek
Banning Bench
South Beaumont
McInnes Fault
Potrero Creek
Montgomery Creek
Banning

Exhibit B
Overlying Producers and Their Rights

(1) Producer	(2) Average Production during 1997-2001 (acre-ft/yr)	(3) Exercised Rights[1] (acre-ft/yr)	(4) Projected Maximum Production (acre-ft/yr)
Beckman, Walt	0	0	75
Roman Catholic Bishop of San Bernardino	104	114	154
Rancho Calimesa Mobile Home Park	60	150	150
Merlin Properties, LLC.	540	550	550
Sunny-Cal Egg and Poultry Company[2]	1,340	1,340	1,439.5
Sunny-Cal North - Manheim, Manheim & Berman[2]			300
Nick Nikodinov[3]			20
Ronald L. McAmis[4]			5
Nicolas and Amalia Aldama[5]			7
Hector Gutierrez, Luis Gutierrez and Sebastian Monroy[6]			10
Boris and Miriam Darmont[7]			2.5
California Oak Valley Golf and Resort LLC	692	950	950
Leonard Stearn	0	0	200
Oak Valley Partners	510	553	1,806
So. California Professional Golf Association	680	1,688	2,200
Sharondale Mesa Owners Association	184	200	200
Plantation on the Lake	271	300	581
Totals	4,381	5,845	8,650

Note 1 -- Maximum Reported Production during 1997-2001

Note 2 -- The *Exercised Right* and *Projected Maximum Production* were an aggregate right for defendents *Sunny-Cal Egg and Poultry* , and *Manheim, Manheim and Berman(MMB). As requested, Watermaster action designated 300 af of the aggregate right to MMB aka Sunny-Cal North on February 7, 2006.*

Note 3 -- The *Exercised Right* and *Projected Maximum Production* were an aggregate right for defendents *Sunny-Cal Egg and Poultry* , and *Manheim, Manheim and Berman(MMB). As requested, Watermaster action designated 20 af of aggregate right to Nick Nikodinov on April 17, 2006.*

Note 4 -- The *Exercised Right* and *Projected Maximum Production* were an aggregate right for defendents *Sunny-Cal Egg and Poultry* , and *Manheim, Manheim and Berman(MMB). As requested, Watermaster action designated 5 af of aggregate right to Ronald L. McAmis on June 13, 2006.*

Note 5 -- The *Exercised Right* and *Projected Maximum Production* were an aggregate right for defendents *Sunny-Cal Egg and Poultry* , and *Manheim, Manheim and Berman(MMB). As requested, Watermaster action designated 7 af of aggregate right to Nicolas and Amalia Aldama on June 13, 2006.*

Note 6 -- The *Exercised Right* and *Projected Maximum Production* were an aggregate right for defendents *Sunny-Cal Egg and Poultry* , and *Manheim, Manheim and Berman(MMB). As requested, Watermaster action designated 10 af of aggregate right to Hector Gutierrez, Luis Gutierrez and Sebastian Monroy on June 13, 2006.*

Note 7 -- The *Exercised Right* and *Projected Maximum Production* were an aggregate right for defendents *Sunny-Cal Egg and Poultry* , and *Manheim, Manheim and Berman(MMB). As requested, Watermaster action designated 2.50 af of aggregate right to Boris and Miriam Dermont on June 13, 2006.*

Exhibit C
Appropriators and Their Water Rights

(1) Producer	(2) Average Production during 1997-2001 (acre-ft/yr)	(3) Share of Safe Yield Allocated to Appropriators	(4) Initial Estimate of Appropriate Rights[1] (acre-ft/yr)	(5) Controlled Overdraft and Supplemental Water Recharge Allocation [2] (acre-ft/yr)	(6) Operating Yield (acre-ft/yr)
Banning, City of	2,170	31.43%	882	5,029	5,910
City of Beaumont	0	0.00%	0	0	0
Beaumont Cherry Valley Water District	2,936	42.51%	1,193	6,802	7,995
South Mesa Water Company	862	12.48%	350	1,996	2,346
Yucaipa Valley Water District	938	13.58%	381	2,173	2,554
Totals	6,906	100.00%	2,805	16,000	18,805

Note 1 – Based on a 8,650 acre-ft/yr safe yield

Note 2-- Controlled overdraft will not exceed 160,000 acre-ft during for first ten years of operation under the physical solution.

Exhibit D

Overlying Producers and the Parcels Upon Which Their Overlying Rights are Exercised[1]

(1) Overlying Producer	(3) Assessors Parcel Number(s)	(4) Area (Acres)
Beckman, Walt	405250004	19.04
	405250005	19.00
Total Area		38.04
California Oak Valley Golf and Resort	406070041	209.71
Total Area		209.71
Manheim, Manheim & Berman[2]	407200009	20.35
	407200011	20.00
	407200012	20.04
	407210001	45.41
	407210002	12.04
	407210004	4.16
Total Area		122.00
Roman Catholic Bishop of San Bernardino	413280016	16.78
	413280030	2.06
	413280036	12.42
Total Area		31.26
Oak Valley Partners	406060010	115.82
	406060015	4.00
	406060017	19.03
	406230020	4.26
	411210003	2.40
	411210005	105.41
	411210010	15.14
	411210016	9.77
	411210017	8.94
	413030011	315.30
	413040001	493.40
	413040002	137.00
	413040003	74.48
	413040004	6.50
	413040005	80.02
	413040006	75.54
	413040007	76.22

(1) Overlying Producer	(3) Assessors Parcel Number(s)	(4) Area (Acres)
Oak Valley Partners (cont'd)	413040008	144.48
	413040009	10.00
	413040010	78.22
	413060003	1.70
	413160003	80.00
	413160004	106.92
	413160005	53.08
	413160006	64.47
	413160007	15.53
	413170020	40.26
	413170021	27.62
	413170023	12.38
	413170027	14.19
	413170028	4.11
	413170029	2.35
	413170030	20.28
	413170031	66.63
	413170033	2.79
	413170035	11.74
	413180017	556.91
	413180019	9.77
	413190001	111.31
	413190003	5.64
	413190005	10.35
	413190008	12.40
	413190011	138.92
	413200002	0.23
	413200003	0.15
	413200010	5.94
	413200014	10.61
	413200015	11.36
	413200020	5.00
	413200023	14.47
	413200024	5.00
	413200026	32.86
	413200027	42.90
	413200028	116.62
	413200029	6.39
	413200030	19.01
	413200034	2.18
	413200035	10.99
	413200036	10.42
	413200037	4.95
	413270021	0.31
	413280034	2.37
	413280039	13.61
	413280040	1.91

(1) Overlying Producer	(3) Assessors Parcel Number(s)	(4) Area (Acres)
Oak Valley Partners (cont'd)	413280041	2.24
	413280042	6.86
	413290003	510.57
	413290004	16.08
	413290006	8.40
	413290007	103.68
	413450019	74.85
	413450020	169.96
	413450021	146.99
	413450024	48.25
	413450025	50.83
	413450026	122.59
	413450029	108.92
	413460036	199.12
	413460037	23.51
	413460038	19.58
	413460039	45.23
	413460039	45.23
	414090005	1.59
	414090007	1.38
	414090013	31.60
	414090017	20.00
	414090018	4.50
	414100002	42.13
	414100003	65.00
Total Area		5,331.65
Plantation on the Lake	407230031	12.36
	407230010	1.25
	406050018	156.85
	406050002	5.12
	406050003	1.81
Total Area		177.39
Rancho Calimesa Mobile Home Park	413270001	29.66
Total Area		29.66
Merlin Properties, LLC.	407230014	48.52
Total Area		48.52
Sharondale Mesa Owners Association	413330014	1.55
	413330015	2.14
	413331022	0.48
	413331035	0.22
	413340021	0.04
	413340022	0.04
	413340023	1.53
	413340024	2.52
	413341033	0.29

(1) Overlying Producer	(3) Assessors Parcel Number(s)	(4) Area (Acres)
Sharondale Mesa Owners Association (cont'd)	413341034	0.81
	413341036	0.35
	413342004	0.35
	413350011	1.04
	413350012	1.44
	413351018	17.08
	413351019	0.16
	413360032	1.92
	413360033	2.30
	413360035	0.90
	413361001	0.14
	413361008	0.12
	413361010	0.18
	413370027	0.39
	413370028	5.34
	413370030	0.69
	413371018	2.07
	413372019	1.39
Total Area		45.48
So. California Professional Golf Association	406060011	146.59
	406060013	2.83
	406060014	4.58
	406060016	10.35
	413450016	99.66
	413450022	95.15
	413450023	2.89
	413450027	91.53
Total Area		453.58
Stearns, Leonard	413221001	0.25
	413221002	0.34
	413260018	49.33
	413260025	0.37
	413270007	10.58
	413280010	1.27
	413280018	9.37
	413280021	4.26
	413280027	3.80
	413280037	14.32
Total Area		93.89
Sunny-Cal Egg and Poultry Company[2]	406080013	0.07
	407190016	4.95
	407190017	31.32
	407230022	20.03
	407230023	20.03
	407230024	20.03
	407230025	21.99

(1) Overlying Producer	(3) Assessors Parcel Number(s)	(4) Area (Acres)
Sunny-Cal Egg and Poultry Company[2] (cont'd)	407230026	25.94
	407230027	21.63
	407230028	21.56
Total Area		187.55
Nikodinov, Nick[4]	407180004	9.35
Total Area		9.35
McAmis, Ronald L.[5]	407190018	0.93
Total Area		0.93
Aldama, Nicolas and Amalia[6]	407190015	1.35
Total Area		1.35
Hector Gutierrez, Luis Gutierrez and Sebastian Monroy[7]	407190013	2.01
Total Area		2.01
Darmont, Boris and Miriam[8]	407190014	0.50
Total Area		0.50
Total Area for All Overlying Producers[3]		**6,782.87**

Note 1 -- Parcels as of June 1, 2003; updated to include Nick Nikodinov per April 17, 2006 Watermaster action; updated to include Ronald L. McAmis, Nicolas and Amalia Aldama, Hector Gutierrez, Luis Guiterrez, and Sebastian Monroy, and Boris and Miriam Darmont per June 13, 2006 Watermaster actions.

Note 2 -- Parcels owned by Sunny-Cal Egg & Poultry Company include the overlying water rights of Manheim, Manheim and Berman (MMB) and is aggregated as shown in Column 4 of Exhibit B as attributable to Sunny-Cal Egg & Poultry Company. As requested, Watermaster designated a portion of these aggregated rights to MMB on February 7, 2006.

Note 3 -- The Watermaster shall recognize adjustments in parcel boundaries that result in de minimus changes in water use

Note 4 -- Parcels owned by Sunny-Cal Egg & Poultry Company include the overlying water rights of Manheim, Manheim and Berman (MMB) and is aggregated as shown in Column 4 of Exhibit B as attributable to Sunny-Cal Egg & Poultry Company. As requested, Watermaster designated a portion of these aggregated rights to Nick Nikodinov on Aprin 17, 2006.

Note 5 -- Parcels owned by Sunny-Cal Egg & Poultry Company include the overlying water rights of Manheim, Manheim and Berman (MMB) and is aggregated as shown in Column 4 of Exhibit B as attributable to Sunny-Cal Egg & Poultry Company. As requested, Watermaster designated a portion of these aggregated rights to Ronald L. McAmis on June 13, 2006.

Note 6 -- Parcels owned by Sunny-Cal Egg & Poultry Company include the overlying water rights of Manheim, Manheim and Berman (MMB) and is aggregated as shown in Column 4 of Exhibit B as attributable to Sunny-Cal Egg & Poultry Company. As requested, Watermaster designated a portion of these aggregated rights to Nicolas and Amalia Aldama on June 13, 2006.

Note 7 -- Parcels owned by Sunny-Cal Egg & Poultry Company include the overlying water rights of Manheim, Manheim and Berman (MMB) and is aggregated as shown in Column 4 of Exhibit B as attributable to Sunny-Cal Egg & Poultry Company. As requested, Watermaster designated a portion of these aggregated rights to Hector Gutierrez, Luis Gutierrez and Sebastian Monroy on June 13, 2006.

Note 8 -- Parcels owned by Sunny-Cal Egg & Poultry Company include the overlying water rights of Manheim, Manheim and Berman (MMB) and is aggregated as shown in Column 4 of Exhibit B as attributable to Sunny-Cal Egg & Poultry Company. As requested, Watermaster designated a portion of these aggregated rights to Boris and Miriam Durmont on June 13, 2006.

Appendix H: Water Shortage Contingency Plan Ordinance

SAN GORGONIO PASS WATER AGENCY

ORDINANCE NO. XX

ORDINANCE ADOPTING A WHOLESALE WATER SHORTAGE CONTINGENCY PLAN FOR PURPOSES OF THE URBAN WATER MANAGEMENT PLANNING ACT

WHEREAS, the San Gorgonio Pass Water Agency ("Agency") is a public water agency organized and operating pursuant to the San Gorgonio Pass Water Agency Law, California Water Code Appendix 101-1 et seq., and is authorized to, among other things, supply water on a wholesale basis to retail water suppliers and other entities within the San Gorgonio Pass area; and

WHEREAS, the Agency is an urban wholesale water supplier for purposes of the Urban Water Management Planning Act (Water Code section 10610 et seq.) and the Water Conservation Act of 2009 (Water Code Section 10608 et seq.), commonly referred to as SBX7-7, and as such the Agency is required to provide a water shortage contingency analysis as part of its Urban Water Management Plan, which must include, among other things, a final or draft water shortage contingency resolution or ordinance that includes stages of action to be undertaken by the Agency in response to water supply shortages, including up to a 50 percent reduction in water supply; and

WHEREAS, the Agency is a State Water Project ("SWP") Contractor and has rights and access to multiple sources of water that it may supply on a wholesale basis to retail water agencies and other entities in the San Gorgonio Pass area, which sources of water include, but are not limited to, annual contractual supplies from the SWP, and surplus water from the Yuba County Water Agency; and

WHEREAS, the State of California recently experienced record multiple dry-year conditions and many portions of the state continue to face ongoing drought conditions, wherein such conditions have affected the availability and reliability of the Agency's wholesale water supplies and water supplies throughout the San Gorgonio Pass area, and wherein future drought conditions will continue to affect the availability and reliability of water supplies available to the Agency; and

WHEREAS, in addition to being subject to drought conditions, water supplies available to the Agency are subject to environmental, regulatory, legal, and other constraints, and are further subject to shortages and reductions caused by catastrophic conditions such as regional power outages, earthquakes, or other disasters; and

WHEREAS, in response to California's recurring drought conditions, Governor Jerry Brown and the prior Governor have issued various emergency drought declarations requiring

immediate actions by state agencies and calling upon local agencies and all Californians to take aggressive and immediate actions to reduce water consumption statewide, regionally, and locally, and to prevent the waste of water; and

WHEREAS, the Agency is authorized by law, including but not limited to, Water Code section 350 et seq., Water Code section 375 et seq., and the San Gorgonio Pass Water Agency Law, to take various actions in response to reductions in water supply, including but not limited to: declaring a water shortage emergency; adopting regulations and restrictions regarding the delivery, distribution and allocation of water; and adopting, implementing, and enforcing a wholesale water conservation program; and

WHEREAS, on July 21, 2014, the Agency adopted Ordinance No. 10 which established a Water Shortage Plan which sets forth a policy regarding how the Agency will allocate wholesale water supplies available for purchase by the Agency during a Water Shortage Year(s); and

WHEREAS, in accordance with the requirements of the Urban Water Management Planning Act, the Agency desires to enact this Water Shortage Contingency Ordinance for purposes of its 2015 Urban Water Management Plan to include stages of action to be undertaken by the Agency in response to shortages in wholesale water supplies available for purchase by the Agency, including up to a 50 percent reduction in those supplies, and to provide an outline of the specific water supply conditions that are applicable to each stage of action by reference to the allocation scenarios established in Agency Ordinance No. 10.

NOW, THEREFORE, BE IT ORDAINED by the Board of Directors of the San Gorgonio Pass Water Agency as follows:

1. Incorporation of Recitals. The Recitals set forth above are incorporated herein and made an operative part of this Resolution.

2. Purpose and Scope. This Water Shortage Contingency Ordinance is adopted pursuant to the authorities of the Agency under the San Gorgonio Pass Water Agency Law and in accordance with the Urban Water Management Planning Act to include stages of action to be undertaken by the Agency in response to shortages in wholesale water supplies available for purchase by the Agency, including up to a 50 percent reduction in those supplies, and to provide an outline of the specific water supply conditions that are applicable to each stage of action by reference to the allocation scenarios established in Agency Ordinance No. 10. As such, implementation of this Ordinance shall be carried out in conjunction with Ordinance No. 10.

3. Notice and Public Hearing. The Agency's Board of Directors has conducted a noticed public hearing on _____ to allow public agencies, members of the public, and other interested stakeholders to review, submit comments, and have an opportunity to be heard on or protest this Ordinance prior to it being adopted by the Board of Directors. Notice of the

public hearing was published on _____ in the _____, a newspaper of general circulation within the Agency.

4. Water Shortage Contingency Principles. In addition to the scope and purpose of this Water Shortage Contingency Ordinance as described in Section 2, above, a guiding principle of this Ordinance is to assist in managing the Agency's water resources and water supply planning efforts to minimize the effects of water shortages or water supply reductions. Additional supporting principles include:

- Encourage and promote efficient water use throughout the San Gorgonio Pass area;
- Coordinate the Agency's water supply planning efforts and water supply operations with retail water supply agencies and other entities in the San Gorgonio Pass area to the greatest extent practicable;
- Pursue innovative programs to secure additional imported water supplies for use in dry years and during water shortage conditions;
- Prepare for potential catastrophic interruption of water supplies, including, but not limited to, a regional power outage, earthquake, or other disaster scenario; and
- Increase public awareness about water supply issues.

5. Implementation. On an ongoing basis, the Agency evaluates its water supply conditions to determine the appropriate stage of action under this Ordinance. Each stage is associated with specific water resource management considerations designed to: (1) avoid shortages to the maximum extent practicable; and (2) coordinate with retail agencies and others to minimize the effects of reductions in water supply or water shortage conditions.

6. Stage 0 Water Supply Condition.

a. A Stage 0 Water Supply Condition may be declared in the Agency's sole discretion in any calendar year or portion thereof when the Agency determines that (1) at least 62 percent of its contractual SWP Table A imported water supplies ("Average SWP Supplies") are available for purchase by the Agency, and (2) that amount exceeds the total amount of imported water needed to satisfy all First, Second, Third, and Fourth Priority Water Deliveries as set forth by Agency Ordinance No. 10. When the Agency determines in its sole discretion that the foregoing conditions exist, the Agency is considered to be in a Stage 0 Water Supply Condition, and extraordinary water supply management actions are not required. Notwithstanding a Stage 0 Water Supply Condition, the following actions may continue to be undertaken by the Agency:

i. Coordination. Meet and coordinate with retail water agencies and other entities in the San Gorgonio Pass area regarding current and projected water supplies and demands.
ii. Public Messaging. Encourage the public to avoid water waste and increase water use efficiency.
iii. Manage Water Supplies in Excess of Demands. Pursue programs and projects to manage water supplies in excess of demands, including, but not limited to, placing such water in storage or water banking or exchange programs.

7. Stage 1 Water Supply Condition

a. A Stage 1 Water Supply Condition may be declared in the Agency's sole discretion in any calendar year or portion thereof when the Agency determines that due to drought, regulatory, legal, catastrophic, or other conditions, the amount of the Agency's Average SWP Supplies will be reduced by up to 25 percent. The Agency's declaration of a Stage 1 Water Supply Condition will trigger the following water management actions by the Agency:
i. Water Shortage Plan. The Agency will determine whether a Water Shortage Year exists in accordance with Ordinance 10 and the extent to which imported water supplies available for purchase by the Agency will need to be allocated in accordance with Ordinance No. 10.
ii. Coordination. Meet and coordinate with retail water agencies and other entities in the San Gorgonio Pass area regarding current and projected water supplies and demands, and the extent to which other agencies may implement the appropriate stages and actions under their respective water shortage contingency plans.
iii. Continue to undertake other applicable actions identified above under a Stage 0 Water Supply Condition.

8. Stage 2 Water Supply Condition

a. A Stage 2 Water Supply Condition may be declared in the Agency's sole discretion in any calendar year or portion thereof when the Agency determines that due to drought, regulatory, legal, catastrophic, or other conditions, the amount of the Agency's Average SWP Supplies will be reduced by between 26 and 45 percent. The Agency's declaration of a Stage 2 Water Supply Condition will trigger the following water management actions by the Agency:
i. Water Shortage Plan. The Agency will determine whether a Water Shortage Year exists in accordance with Ordinance 10 and the extent

to which imported water supplies available for purchase by the Agency will need to be allocated in accordance with Ordinance No. 10.

ii. Shift and Increase in Public Messaging. The Agency will utilize its own website and other local media and communication efforts to educate the public on the shortage and to encourage greater conservation on the part of individuals, businesses, and institutions.

iii. Dry Year Supplies. Determine from its customers if they desire additional dry-year supplies at an additional cost and, if so, to make reasonable and practicable attempts to obtain and deliver such supplies to customers who request and ensure payment for them.

iv. Continue to undertake other applicable actions identified above under Stage 0 and Stage 1 Water Supply Conditions.

9. Stage 3 Water Supply Condition

a. A Stage 3 Water Supply Condition may be declared in the Agency's sole discretion in any calendar year or portion thereof when the Agency determines that due to drought, regulatory, legal, catastrophic, or other conditions, the amount of the Agency's Average SWP Supplies will be reduced by more than 45 percent. The Agency's declaration of a Stage 3 Water Supply Condition will trigger the following water management actions by the Agency:

i. Water Shortage Plan. The Agency will determine whether a Water Shortage Year exists in accordance with Ordinance 10 and the extent to which imported water supplies available for purchase by the Agency will need to be allocated in accordance with Ordinance No. 10.

ii. Shift and Increase in Public Messaging. The Agency will utilize its own website and other local media and communication efforts to educate the public on the shortage and to encourage greater conservation on the part of individuals, businesses, and institutions.

iii. Dry-Year Supplies. Determine from its customers if they desire additional dry-year supplies at an additional cost and, if so, to make reasonable and practicable attempts to obtain and deliver such supplies to customers who request and ensure payment for them.

iv. Transfers. Evaluate and solicit input from its customers whether the Agency should pursue any transfers to augment supplies during the Stage 3 Condition, including related considerations of potential impacts to future water supplies.

v. Continue to undertake other applicable actions identified above under Stage 0, Stage 1, and Stage 2 Water Supply Conditions.

10. Exemption from the California Environmental Quality Act (CEQA). The Board of Directors determines that the adoption of this Ordinance, for the purposes of addressing

potential reductions in water supply or water supply shortages, is exempt from the requirements for the California Environmental Quality Act in accordance with applicable law, including, but not limited to, Sections 15378(b)(2) and (b)(5) of the State CEQA Guidelines, and Section 10652 of the Urban Water Management Planning Act.

11. Effective Date. This Ordinance shall be effective immediately upon adoption and shall be presumed to continue in effect unless or until a contrary finding is made by applicable action by the Board of Directors. Within ten (10) days after adoption of this Ordinance No. __, a copy of this Ordinance shall be published one time in a newspaper of general circulation with the names of the Directors voting for and against this Ordinance.

12. Severability. If any section, subsection, clause or phrase in this Ordinance No. __ is for any reason held invalid, the validity of the remainder of this Ordinance shall not be affected thereby.

ADOPTED AND APPROVED this ____th day of _____, [Year].

_____

President, Board of Directors

San Gorgonio Pass Water Agency

ATTEST:

_____

Secretary, Board of Directors