Appendix J Water Supply Assessment

Appendices

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WATER SUPPLY ASSESSMENT

RANCHO SAN GORGONIO SPECIFIC PLAN

CITY OF BANNING

COUNTY OF RIVERSIDE

STATE OF CALIFORNIA

PREPARED BY:

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Prepared for:

Rancho San Gorgonio, LLC

September 30, 2015

Contents

1. Executive Summary

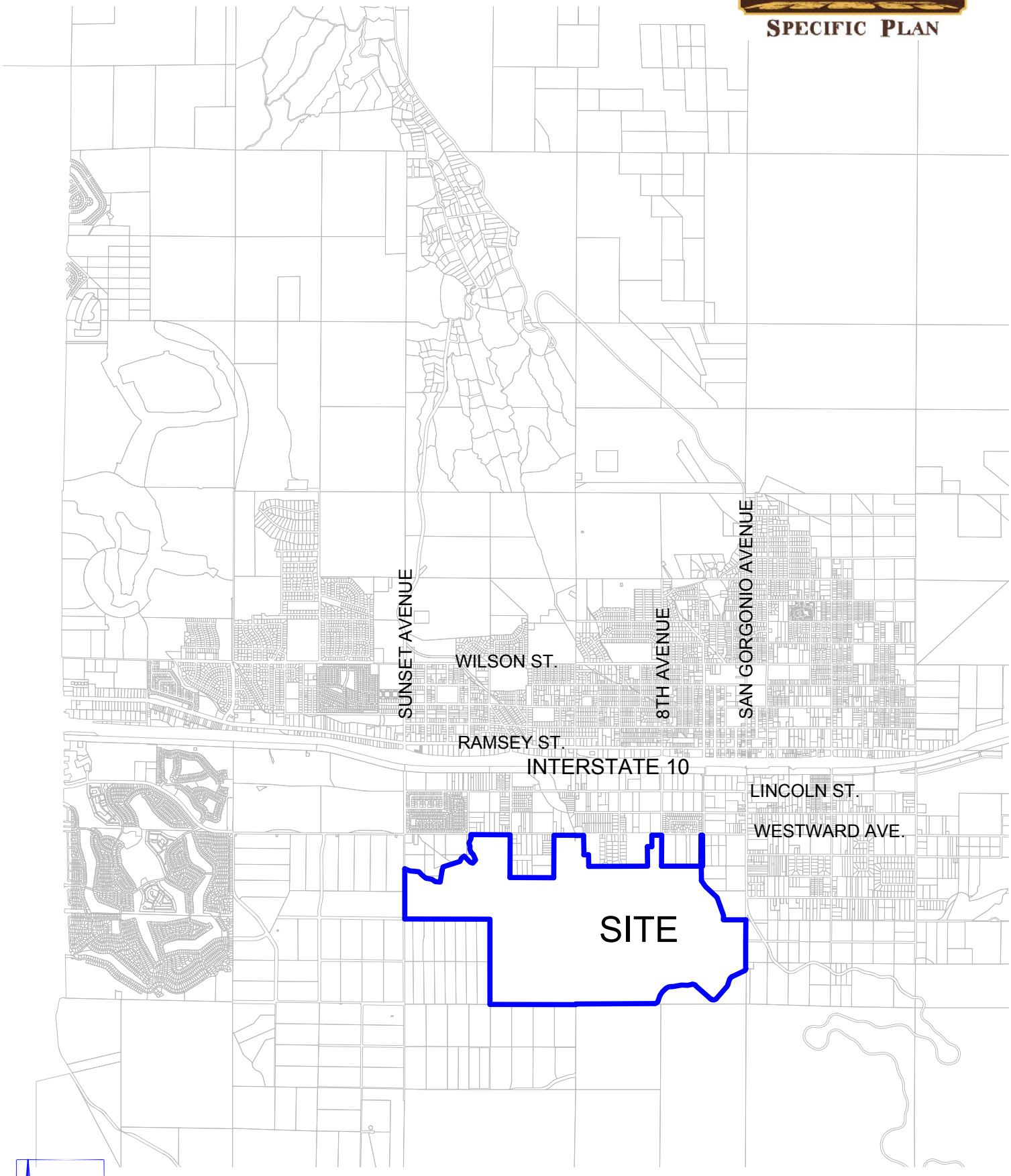
Rancho San Gorgonio is a master planned community proposed in the City of Banning, Riverside County, California. Located on approximately 831 acres on the south side of the city, including approximately 160 acres to be annexed from the county, up to 3385 dwelling units are anticipated, among other uses and amenities.

Due to the size of the project, state law requires a Water Supply Assessment be prepared to ensure there will be an adequate supply of water for the project and the city over the next twenty years.

Water purveyors, like the City of Banning, are required to prepare an Urban Water Management Plan (UWMP) every five years. The current 2010 UWMP, acknowledged by the state on July 1, 2013, describes in detail the various sources of water, the confidence in long-term reliability of those sources, the quality of those sources, and the projected demand for water within the city from now until build-out.

The UWMP was the primary resource and was used as a basis for this WSA. In addition, data from 2010 through 2014, the most current years available, has been obtained and incorporated into this WSA. Based on information provided in the UWMP and subsequent years, an assessment is made herein of the change this project will have on what was anticipated with the UWMP. Planning ahead to a built-out condition, there will be an estimated increase in population of up to 5991 due to this project (Table 4-4), resulting in an estimated increase in demand for water of up to 584 acre-feet/year (Table 4-11) as compared to the UWMP. This will be significantly offset by additional sources of water due to the project, amounting to an estimated 569 acre-feet/year (Table 4-11), including recharge of rainwater and return flows from irrigation, and by use of recycled water in place of potable water for irrigation throughout the city. As the city maintains a significant supply surplus, 605 acre-feet in 2014 (Tables 3-1 and 3-2), a drought year, and not including their ample water storage account, which is over 46,000 acre-feet (Section 3.2.1.5), the small balance of supply needed is well within the city's current and projected ability to deliver.

Therefore, it is determined with this WSA that the City of Banning's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the city's existing and planned future uses, including agricultural and manufacturing uses.



0' 4000' 8000'

Vicinity Map

2. Water Supply Assessment

2.1. Introduction

A Water Supply Assessment (WSA) is mandated by state law (see Public Resource Code 21080 and Water Code 10910), in general for any project proposing 500 or more new residences. These codes stipulate when WSA's are needed and how they shall be completed. As the City of Banning is both the land use agency and the water supplier for the proposed Rancho San Gorgonio Master Planned Community, and accompanying Specific Plan, the city is responsible for ensuring the WSA is prepared in accordance with state code. Madole & Associates, Inc., and Encompass Associates, Inc., were contracted to prepare the WSA by Rancho San Gorgonio, LLC, for the benefit of the City of Banning.

This WSA is based upon the City of Banning's 2010 Urban Water Management Plan (UWMP), which received acknowledgment from the Department of Water Resources on July 1, 2013 as meeting the requirements of the California Water Code. Data pertaining to historical supply and demand is taken from the UWMP. Projections can then be made for the increase in demand from the proposed Rancho San Gorgonio development.

Per Water Code 10910, this WSA "must address whether the projected supply for the next 20 years – based on normal, single dry, and multiple dry years – will meet the demand projected for the project plus existing and planned future use…" The following three issues must be addressed:

1. Assess water received in prior years from (and provide supporting documentation):
    a. Water supply entitlements
    b. Water rights
    c. Water service contracts
2. If no water received in prior years, identify other water suppliers
3. If the source includes groundwater, follow the related guidelines as applicable.

From these three inquiries, the City of Banning can determine if there is sufficient water supply for the proposed project. If there is insufficient supply, the WSA must set forth plans to acquire the necessary supply, including the estimated cost thereof, the permits required, and the estimated timeframe for supply acquisition.

2.2. Proposed Project Description

Rancho San Gorgonio is a master planned community proposed in the City of Banning, California, comprising approximately 830.8 acres. The site is south of Interstate 10, generally situated between Sunset Avenue and San Gorgonio Avenue, south of Westward Avenue. A portion of the property is in unincorporated Riverside County, and will be annexed into the city limits as part of the entitlement process.

The proposed project will consist of up to 3385 dwelling units, almost 49 acres of neighborhood and community parks, over 160 acres of paseos and open space, and 81 acres of right-of-way and utility easements. (Exhibit 2-1)

A mix of residential properties is proposed, including single-family detached in a variety of lot sizes up to half-acre lots, as well as multi-family residences. Numerous parks are planned throughout, with amenities anticipated to include a community center, picnic areas, pedestrian, bicycle and equestrian trails, and athletic fields. See Table 2-1 for a description of land uses, dwelling units, and acreages.

With a projected build-out population of 8936, Rancho San Gorgonio will need an estimated potable water supply of 1411 acre-feet per year per Table 4-9. However, as discussed further in Section 4.2, the project area is already included in the UWMP calculations, which assumes development will occur per current General Plan zoning densities. Further, the Butterfield Specific Plan has been reduced in total dwelling units from what was included in the UWMP. Therefore, this project will only require a net increase in water supply of up to 48 acre-feet per year (Table 4-11).

The increase in potable water demand is offset by new sources of water resulting from the project, including rainwater recharge and recycled water in lieu of potable water for irrigation both in the project and elsewhere in the city.

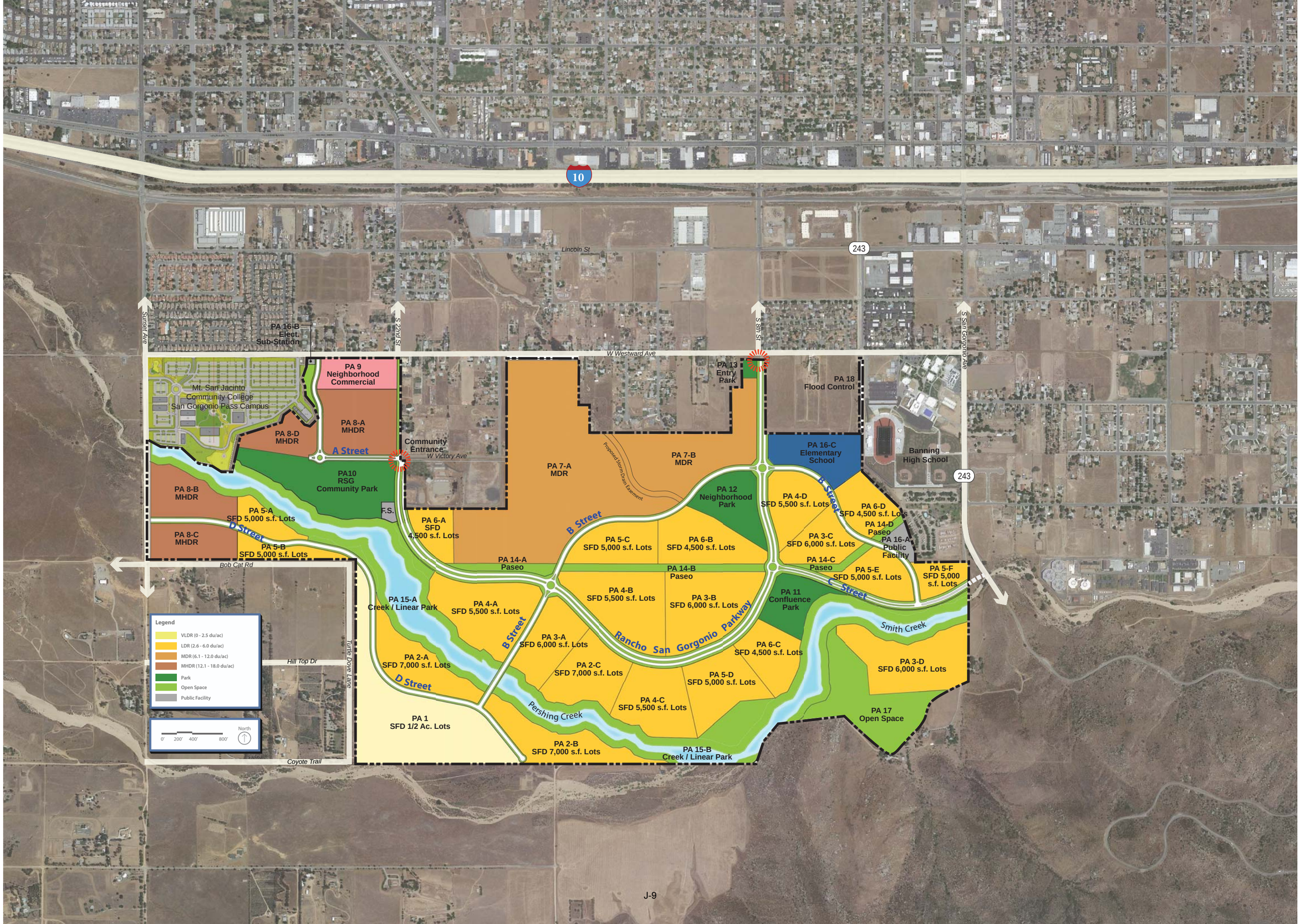
For rainwater recharge, the project will construct a system of retention basins, required to ensure storm flows discharged downstream do not exceed the existing condition, and that pollutants in runoff are captured prior to discharge downstream. Due to these basins, the project will capture approximately 199 acre-feet more rainfall per year than in the current condition (See Section 4.3.1), and this captured rain will recharge the underlying aquifer.

Recycled water will be generated by the project or at the city's treatment plant from the project sewer collection system, and then distributed for irrigation usage throughout the area through the city's recycled water system, partially complete at this time (see Section 5). The project will utilize 218 acre-feet per year for irrigation on-site, and will generate an

additional 252 acre-feet per year, at build-out, for use elsewhere in the city, offsetting current potable water demand (Section 5).

In addition, approximately 25% of irrigation is recharged back into the aquifer, termed return flows, resulting in an additional supply of 117 acre-feet per year (Section 4.3.3).

The net water balance for this project in 20 years (2035) is therefore estimated to result in an increase in demand of 16 acre-feet/year (Table 4-11).


10
243
Lincoln St
S Suncrest Ave
S 22nd St
S 16th St
S San Gorgonio Ave
W Westward Ave
PA 16-B
Elect.
Sub-Station
PA 9
Neighborhood
Commercial
Mt. San Jacinto
Community College
San Gorgonio Pass Campus
PA 8-A
MHDR
PA 8-D
MHDR
A Street
Community
Entrance
W Victory Ave
PA 13
Entry
Park
PA 18
Flood Control
PA 16-C
Elementary
School
Banning
High School
PA 7-A
MDR
PA 7-B
MDR
Proposed Storm Drain Easement
PA10
RSG
Community Park
F.S.
PA 8-B
MHDR
PA 8-C
MHDR
PA 5-A
SFD 5,000 s.f. Lots
PA 5-B
SFD 5,000 s.f. Lots
D Street
PA 6-A
SFD
4,500 s.f. Lots
B Street
PA 12
Neighborhood
Park
PA 4-D
SFD 5,500 s.f. Lots
C Street
PA 6-D
SFD 4,500 s.f. Lots
PA 14-D
Paseo
PA 16-A
Public
Facility
PA 3-C
SFD 6,000 s.f. Lots
PA 14-C
Paseo
PA 5-E
SFD 5,000 s.f. Lots
PA 5-F
SFD 5,000
s.f. Lots
PA 5-C
SFD 5,000 s.f. Lots
PA 6-B
SFD 4,500 s.f. Lots
PA 14-A
Paseo
PA 14-B
Paseo
Bob Cat Rd
PA 15-A
Creek / Linear Park
PA 4-A
SFD 5,500 s.f. Lots
PA 4-B
SFD 5,500 s.f. Lots
PA 3-B
SFD 6,000 s.f. Lots
PA 11
Confluence
Park
Rancho San Gorgonio Parkway
Smith Creek
PA 3-A
SFD 6,000 s.f. Lots
PA 6-C
SFD 4,500 s.f. Lots
PA 2-A
SFD 7,000 s.f. Lots
PA 2-C
SFD 7,000 s.f. Lots
PA 5-D
SFD 5,000 s.f. Lots
PA 3-D
SFD 6,000 s.f. Lots
Hill Top Dr
Turtle Cove Lane
PA 4-C
SFD 5,500 s.f. Lots
Pershing Creek
PA 17
Open Space
PA 1
SFD 1/2 Ac. Lots
PA 2-B
SFD 7,000 s.f. Lots
PA 15-B
Creek / Linear Park
Coyote Trail
Legend
VLDR (0 - 2.5 du/ac)
LDR (2.6 - 6.0 du/ac)
MDR (6.1 - 12.0 du/ac)
MHDR (12.1 - 18.0 du/ac)
Park
Open Space
Public Facility
North
0'
200'
400'
800'

Planning Area	Land Use	Density Range	Target Density	Acreage	DU
PA 1	VLDR - Single Family Detached 1/2 Acre Lots	0-2.5	2.0	47.05	94
PA 2-A	LDR - Single Family Detached 7000 Lots	2.6-6.0	3.4	15.51	53
PA 2-B	LDR - Single Family Detached 7000 Lots	2.6-6.0	3.4	17.57	60
PA 2-C	LDR - Single Family Detached 7000 Lots	2.6-6.0	3.4	16.33	56
PA 3-A	LDR - Single Family Detached 6000 Lots	2.6-6.0	3.8	13.96	53
PA 3-B	LDR - Single Family Detached 6000 Lots	2.6-6.0	3.8	23.81	90
PA 3-C	LDR- Single Family Detached 6000 Lots	2.6-6.0	3.8	10.63	40
PA 3-D	LDR - Single Family Detached 6000 Lots	2.6-6.0	3.8	24.00	91
PA 4-A	LDR - Single Family Detached 5500 Lots	2.6-6.0	4.4	23.19	102
PA 4-B	LDR - Single Family Detached 5500 Lots	2.6-6.0	4.4	23.11	102
PA 4-C	LDR - Single Family Detached 5500 Lots	2.6-6.0	4.4	17.73	78
PA 4-D	LDR - Single Family Detached 5500 Lots	2.6-6.0	4.4	12.34	54
PA 5-A	LDR - Single Family Detached 5000 Lots	2.6-6.0	5.2	5.90	31
PA 5-B	LDR - Single Family Detached 5000 Lots	2.6-6.0	5.2	6.50	34
PA 5-C	LDR - Single Family Detached 5000 Lots	2.6-6.0	5.2	12.60	66
PA 5-D	LDR - Single Family Detached 5000 Lots	2.6-6.0	5.2	16.43	85
PA 5-E	LDR - Single Family Detached 5000 Lots	2.6-6.0	5.2	10.41	54
PA 5-F	LDR - Single Family Detached 5000 Lots	2.6-6.0	5.2	5.87	31
PA 6-A	LDR - Single Family Detached 4500 Lots	2.6-6.0	6.0	7.26	44
PA 6-B	LDR - Single Family Detached 4500 Lots	2.6-6.0	6.0	16.83	101
PA 6-C	LDR - Single Family Detached 4500 Lots	2.6-6.0	6.0	11.72	70
PA 6-D	LDR - Single Family Detached 4500 Lots	2.6-6.0	6.0	10.05	60
PA 7-A	MDR - 6.5	6.1-12.0	6.5	85.36	555
PA 7-B	MDR - 6.5	6.1-12.0	6.5	30.58	199
PA 8-A	MHDR - 18	12.1-18.0	18.0	18.50	333
PA 8-B	MHDR - 18	12.1-18.0	18.0	12.90	232
PA 8-C	MHDR - 18	12.1-18.0	18.0	11.70	211
PA 8-D	MHDR - 18	12.1-18.1	18.0	8.60	154
PA 9	Neighborhood Commercial (MHDR-18 Residential Overlay)	12.1-18.0	18.0	9.33	168
PA 9	Neighborhood Commercial (0.25 FAR)				
PA 10	RSG Community Park			25.00	
PA 11	Confluence Park			10.15	
PA 12	Neighborhood Park			12.70	
PA 13	Entry Park			1.08	
PA 14-A	Village Paseo			3.25	
PA 14-B	Village Paseo			6.01	
PA 14-C	Village Paseo			2.26	
PA 14-D	Village Paseo			1.03	
PA 15-A	Creeks / Creek Edge Linear Parks (100' Width)			54.83	
PA 15-B	Creeks / Creek Edge Linear Parks (100' Width)			67.17	
PA 16-A	Public Facility			2.42	
PA 16-B	Electrical Sub-station			0.20	
PA 16-C	Elementary School LDR SFD 4,500SF Overlay		6.0	14.00	84
PA 17	Open Space			25.70	
PA 18	Flood Control			1.10	
	Fire Station			1.00	
	Right-of-Way (Include Landscape Corridor)			77.17	
	TOTAL			**830.84**	**3,385**

Land Use	Acreage	DU	% of Total Ac.
VLDR	47.05	94	6%
LDR	301.75	1355	36%
MDR	115.94	754	14%
MHDR	51.70	930	6%
Neighborhood Commercial with Residential overlay*	9.33	168	1%
Elementary School with Residential Overlay**	14.00	84	2%
Parks & Open Space	209.18		25%
Right-of-way	77.17		9%
Public Facility	2.62		0%
Flood Control	1.10		0%
Fire Station	1.00		0%
TOTAL	**830.84**	**3,385**	**100%**

Distribution of Product Type	Density Range	Target Density	Acreage	DU	% of Total DU
Single Family Detached 1/2 Acre Lots	0 - 2.5	2.0	47.05	94	3%
Single Family Detached 7000 Lots	2.6 - 6.0	3.4	49.41	169	5%
Single Family Detached 6000 Lots	2.6 - 6.0	3.8	72.40	274	8%
Single Family Detached 5500 Lots	2.6 - 6.0	4.4	76.37	336	10%
Single Family Detached 5000 Lots	2.6 - 6.0	5.2	57.71	301	9%
Single Family Detached 4500 Lots	2.6 - 6.0	6.0	45.86	359	11%
Age Qualified	6.1 - 12.0	6.5	115.94	754	22%
Multi-Family Attached-18 *	12.1 - 18.0	18.0	61.03	1098	32%
TOTAL			**525.77**	**3,385**	**100%**

** 168 dwelling units (9.33 ac.) are dedicated to the residential overlay within PA 9.*

** * 84 dwelling units (14 ac.) are dedicated to the residential overlay within PA 16-C.*

Table 2-1: Proposed Land Use with Maximum Build-out Density

Type	Zoning Density	Target Dwelling Units per Acre	Acres	Maximum Dwelling Units
Single-Family Residential**	0.5-6	2-6	362.8	1533
Multi-Family Residential	12.1-18.0	18	51.7	930
Age-Qualified Residential	6.1-12.0	6.5	115.94	754
Mixed Use *	12.1-18.0	18	9.33	168
Parks & Open Space	n/a	n/a	209.18	0
Right-of-way	n/a	n/a	77.17	0
Public Facility	n/a	n/a	3.62	0
Storm Drain Easement	n/a	n/a	1.1	0
			830.84	3385

*Neighborhood Commercial with Residential Overlay (9.33 ac dedicated to MFR)
**84 du (14 ac) are dedicated to the residential overlay within PA 16-C

3. Existing Water System and Supply

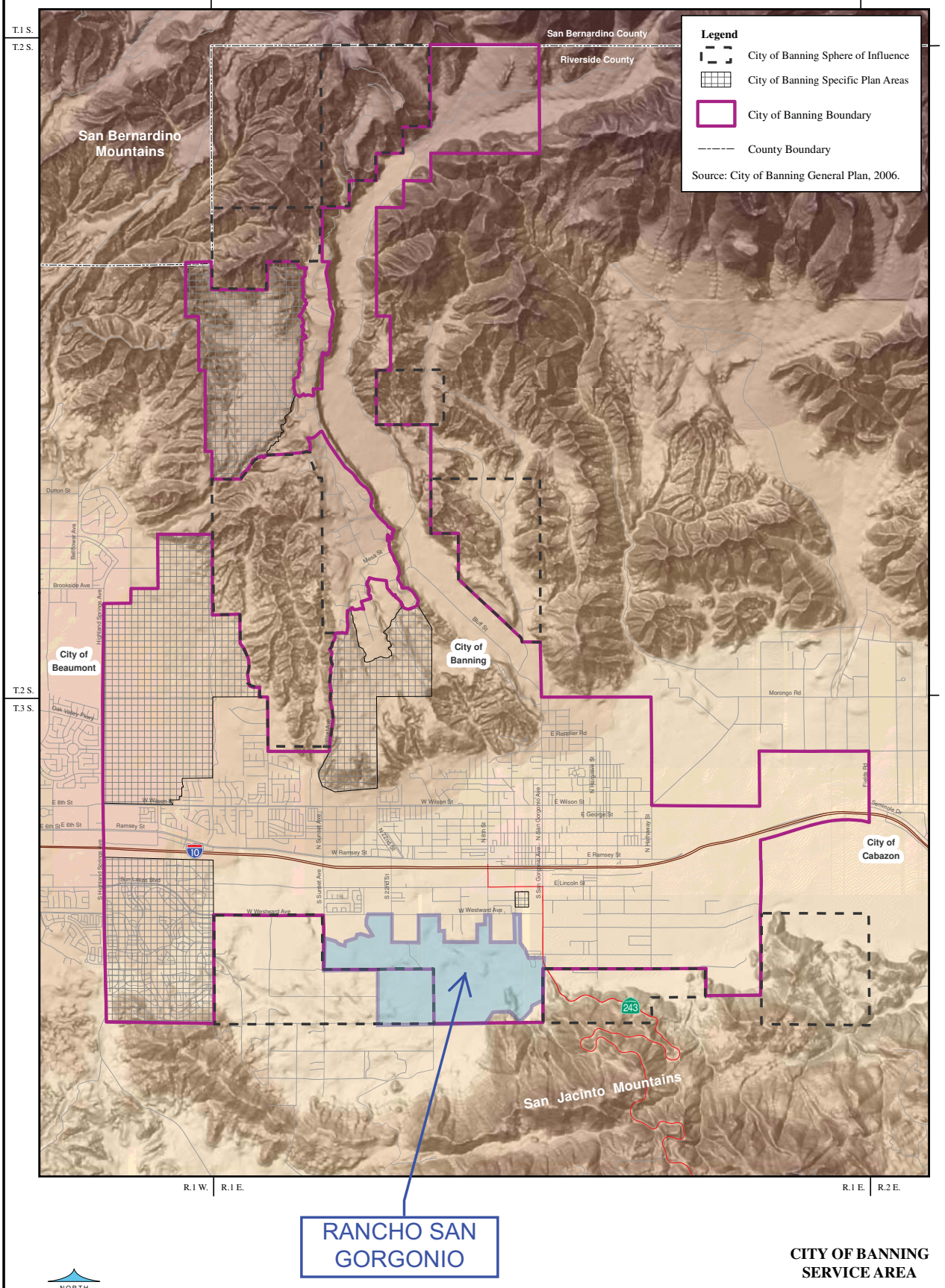
3.1. City of Banning Water System

The City of Banning is the utility provider of water and sewer services throughout the city, including areas outside city limits but within the sphere of influence (see Exhibit 3-1). All water is pumped from the various underground water basins via a network of wells. The city owns 21 wells outright, and co-owns 3 wells with the Beaumont Cherry Valley Water District (BCVWD).

The pipeline system connects these wells and tank reservoirs together, including an interconnection with BCVWD for the co-owned wells. In order to serve all parts of the city, the system is organized naturally by actual elevation differences and with pressure regulating devices into four pressure zones (see Exhibit 3-2). Refer to Section 4 of the UWMP for additional information on the city's water system.

To augment natural groundwater sources, the city replenishes water conjunctively in a number of ways. In partnership with BCVWD, the city purchases State Water Project (SWP) water and recharges it into the Beaumont Basin via BCVWD's spreading ground facility. And, as the city further develops existing and planned wells over the Cabazon Basin, additional water will be available from the recovery of treated wastewater that is recharged into the aquifer from the percolation ponds at the city's WWTP.

These sources of water are further described below in this section.



CITY OF BANNING SERVICE AREA

NORTH
0 0.5 1 Miles

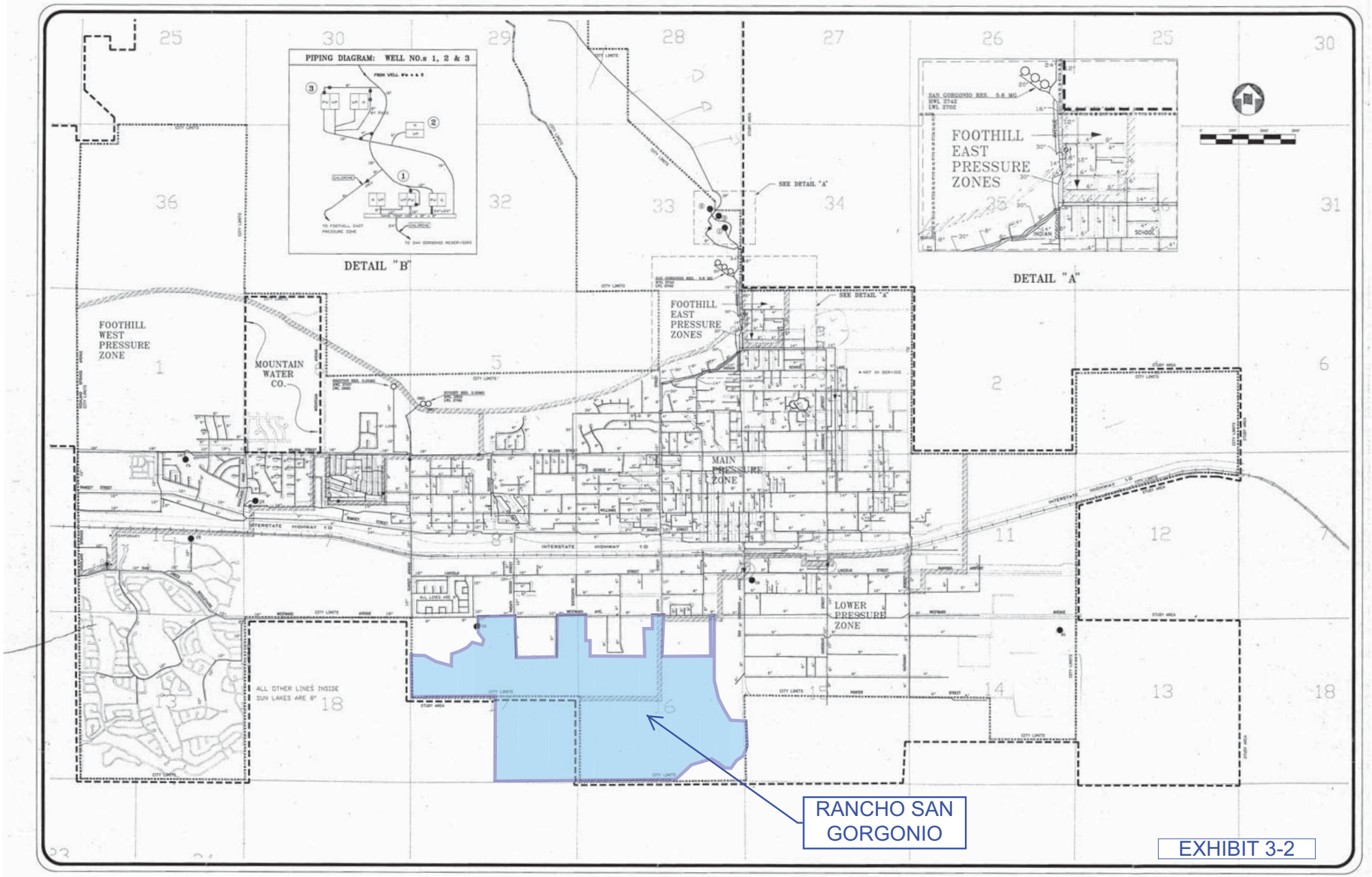
22-Jul-11

Prepared by: DWB. Map Projection: UTM 1927, Zone 11.

GEOSCIENCE
GEOSCIENCE Support Services, Inc.
P.O. Box 220, Claremont, CA 91711
Tel: (909) 451-6650 Fax: (909) 451-6638
www.gsiwater.com

EXHIBIT 3-1
Figure 2-1

GIS_proj/city_of_banning_2010_UWMP_7-11/0_Fig_2-1_portrait_service_area_7-11.mxd



NBS LOWRY ENGINEERS & PLANNERS

EXISTING WATER SYSTEM

SOUTH AREA

J-14

LEGEND

STUDY AREA BOUNDARY	PELTON WHEEL
CITY LIMITS	WELL PUMP
WATERLINE (WITH DIAMETER)	MOTOR
RESERVOIR (WITH VOLUME, HIGH AND LOW WATER LEVELS)	GENERATOR
WELL	PRESSURE REDUCING VALVE (POINTS IN DIRECTION OF FLOW)
SECTION LINE	VALVE (NORMALLY CLOSED)
SECTION NO.	CHECK VALVE (DIRECTION OF FLOW INDICATED)

PLATE A

M-R9-1129

3.2. Current Sources of Water

All water enters the city system via pumping operations from the underground basins. All groundwater basins are geologic formations that, in one way or another, collect and retain water that percolates into the ground. There are different means of replenishing the underground water basin storage. Surface water naturally percolates into the ground during rainfall events, snow melt from the surrounding mountains and higher elevations, and from urban sources, "return flows", such as excess irrigation runoff. The city also purchases State Water Project (SWP) water through the San Gorgonio Pass Water Agency (SGPWA). Finally, the city has plans to utilize recycled water for nonpotable, irrigation demands, and by doing so, will free up the water supply for additional potable needs.

Table 4-1 from the UWMP summarizes current and future water supplies, and that table is replicated here. The various sources will be discussed further below, as summarized from Section 4 of the UWMP. Water supply data is projected for years 2015 through 2035. Actual supplies used by the city are shown for years 2010-2014.

Table 3-1 - Current and Projected Water Supplies (Table 4-1 from the 2010 UWMP) [acre-ft]										
Water Supply Source	2010*	2011*	2012*	2013*	2014*	2015	2020	2025	2030	2035
Banning Storage Unit[1]	1218	1486	1380	1806	1535	1130	1130	1130	1130	1130
Banning Bench Storage Unit[1]	1472	1319	1644	1701	1001	1960	1960	1960	1960	1960
Banning Canyon Storage Unit[1]	3726	3808	4046	3147	2558	4070	4070	4070	4070	4070
Beaumont Storage Unit[2]	1144	1342	1038	2101	2585	2514	2514	2514	2514	2514
Cabazon Storage Unit[3]	565	499	455	11	787	787	1405	1648	1916	2212
Recycled Water Supply[4]	0	0	0	0	0	0	1680	1680	1680	1680
Return Flows from Recycled Water Irrigation[5]	0	0	0	0	0	0	420	420	420	420
Return Flows from Potable Residential Irrigation[6]	0	0	0	0	0	9	18	28	38	48
SWP Table A Entitlement[7]	1338	800	1200	1200	608	608	2595	2595	2595	2595
Total	9463	9254	9764	9967	9073	11078[8]	15792	16045	16323	16629

* 2010-2014 values are actual supplies utilized by the City.

1) Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units, and Available Water Supply from the Beaumont Basin,Geoscience 2011.

2 City of Banning average annual production from City of Banning Wells within the Beaumont Storage Unit since the basin was adjudicated in 2004

3) Cabazon production supply includes approximately 710 acre-ft/yr, which has been the average annual production from the City of Banning Well C-6, and additional water which may be utilized by the City as described in Maximum Perennial Yield Estimates Report, Geoscience, 2011 (see Appendix F). See Section 4.2.7 for explanation of estimates. These values assume that Phase I of the WWTP Expansion will be completed by 2020, and 1,680 acre-ft/yr will be treated to Tertiary standards and used to offset potable demand, therefore the 1,680 acre-ft/yr is excluded from these estimates. 2015 production is assumed to be at 2014 levels

4) Values from Initial Study/Mitigated Negative Declaration, Wastewater Treatment Plant Expansion and Phase I Recycled Water System, May2008 prepared by the City of Banning Water/Wastewater Utilities Department. Assumes WWTP Phase I will be completed by 2020. It is assumed that supply will increase by 1.5 MGD/ 1,680 AFY every ten years.

5) Values include 25% return flow from all irrigation purposes inside and outside the BMZ for Phase I and Phase II WWTP expansion project. Assumes Phase I will be completed in 2020. See Section 4.8 of the UWMP for more information.

6) Values include 25% return flow from all irrigation purposes where potable water is used (50% of residential water use is used for landscape irrigation). Returns flows for Beaumont Storage Unit are not counted, as the City has an allotment of the Safe Yield. All return flows within the Beaumont Basin from imported water are dedicated for overdraft mitigation. Return flows in the Banning Storage Units are considered for developments projected for construction which will add new recharge to the storage units (total of 1,044 EDUs at build out - assumed to be 2061) along with 20X2020 conservation.

7) Assumes 60% SGPWA SWP average reliability per DWR's Final Reliability Report 9/27/10; Assumes Banning's allocation of available SWP water is 25% of SGPWA Allotment, assumes EBX-II is on line by 2020. 2015 is assumed to be at 2014 levels.

8) The sizable increase in total water supply from 2014 to 2015 represents current, actual production levels (up to and including 2014), compared with the maximum production level under safe yield operating conditions (2015 onward). The actual production for 2015 likely will not approach the total supply stated, due to current drought conditions and the Governor's 2015 mandate to reduce usage.

3.2.1. Groundwater

The project and the City of Banning, among other cities in the area, are situated over the San Gorgonio Pass Ground Water Basin. The basin includes five sub-units, which are not totally independent from each other (see Exhibit 3-3).

3.2.1.1. Banning Storage Unit

The Banning Storage Unit is located substantially within the city limits, comprising the downtown area and beyond on both sides of Interstate 10. It is about 3.9 square miles in size, with an average thickness of 600 feet and up to 240,000 acre-feet of capacity (Geoscience 2011).

The City of Banning has exclusive pumping rights to the Banning Storage Unit. With the four wells currently installed within this unit, the city has pumping capacity up to 3,500 gpm, or 5,646 acre-ft/year. The Geoscience study (2011) determined the safe yield to be 1,130 acre-ft/year, which is what the UWMP includes for future production projections.

3.2.1.2. Banning Bench Storage Unit

The Banning Bench Storage Unit is located north of the Banning Storage Unit, mostly within the city limits, up to Banning Canyon. It is approximately 5.9 square miles in size, with an average thickness of 30 feet and up to 1500 acre-feet of capacity (Geoscience 2011).

The City of Banning also has exclusive pumping rights to the Banning Bench Storage Unit. Three wells within this unit can produce up to 3,650 gpm, or 5,888 acre-ft/year. The safe yield was determined to be 1,960 acre-ft/year.

3.2.1.3. Banning Canyon Storage Unit

Extending a few miles north from Banning Bench, the Banning Canyon Storage Unit comprises the canyon area of the city. About 1.6 square miles, it has an average thickness of 161 feet and can store up to about 13,500 acre-feet (Geoscience 2011).

The Banning Canyon Storage Unit is the largest source of water for the city. The San Gorgonio River, and a diversion system from the Whitewater River, provide recharge for Banning Canyon. Eight wells within this unit can produce up to 8,600 gpm, or 13,873 acre-ft/year. The safe yield has been determined to be 4,070 acre-ft/year, which is what is utilized in projections in the UWMP and this WSA.

In the near future, it is anticipated that the US Forest Service will negotiate a reduction in the amount of water diverted from the Whitewater River. As the diversion accounts for only about 500 ac-ft/year, a reduction would not be significant. While details are still pending, any reductions in these historical rights will be replaced by SGPWA, as a requirement of their management of the Pass area water, therefore the values in Table 3-1 above are unchanged from 4,070 ac-ft/year.

3.2.1.4. Cabazon Storage Unit

Underlying the eastern portion of the city, the Cabazon Storage Unit extends easterly to the City of Cabazon. The Cabazon Storage Unit is about 27 square miles in size, has an average thickness of 350 feet, and can store up to 1,000,000 acre-feet.

The city does not have exclusive pumping rights for the Cabazon Storage Unit. One well within this unit, C-6, can produce up to 900 gpm, or 1,452 acre-ft/year. The city produced 786 acre-feet from C-6 in 2014. With the installation of additional wells and pipeline, the city could safely extract 2,515 acre-ft/year per the UWMP, well above the projections used in the UWMP and the WSA.

The city is also anticipating utilizing the Cabazon Storage Unit to supplement the recycled water production capacity of the WWTP. Existing Well R-1 could begin extraction with the installation of pumping equipment, and a second well, designated R-2, could be installed to bring total nonpotable water from the Cabazon unit to 2,655 acre-ft/year, the average amount of treated wastewater infiltrated into the Cabazon unit.

3.2.1.5. Beaumont Storage Unit

Located mostly in the City of Beaumont, part of the Beaumont Storage Unit does underlie the western portion of the City of Banning. It is approximately 20 square miles in size (2010 UWMP).

Extraction of water from the Beaumont Storage Unit has been adjudicated (see Section 6), with rights shared amongst the City of Banning, the Beaumont Cherry Valley Water District, the South Mesa Water District, and the Yucaipa Valley Water District.

Five wells within this unit, plus the city's share of three additional wells, can produce up to 7,650 gpm, or 12,340 acre-ft/year. The judgment has given the city the right to pump 5,910 acre-feet annually through the year 2014. The basin Watermaster is required by law to re-evaluate the safe yield from the storage unit every ten years, and the technical study, *Draft-Final 2013 Reevaluation of the Beaumont Basin Safe Yield*, dated January 16, 2015, was completed by Thomas Harder & Co, in association with Alda, Inc. (see Section 6). The overall safe yield was reduced from 8,650 ac-ft/yr to 6,700 ac-ft/yr. The city's controlled overdraft allotment has been eliminated, as projected in the 2010 UWMP. The city's appropriative rights are estimated from a study prepared by Wildemuth Environmental, Inc., dated March 18, 2011, titled *Projected Allocation of Pumping Rights for the 2004 Beaumont Basin Judgment*, shown in column 2 on UWMP Table 4-4, revised and included below.

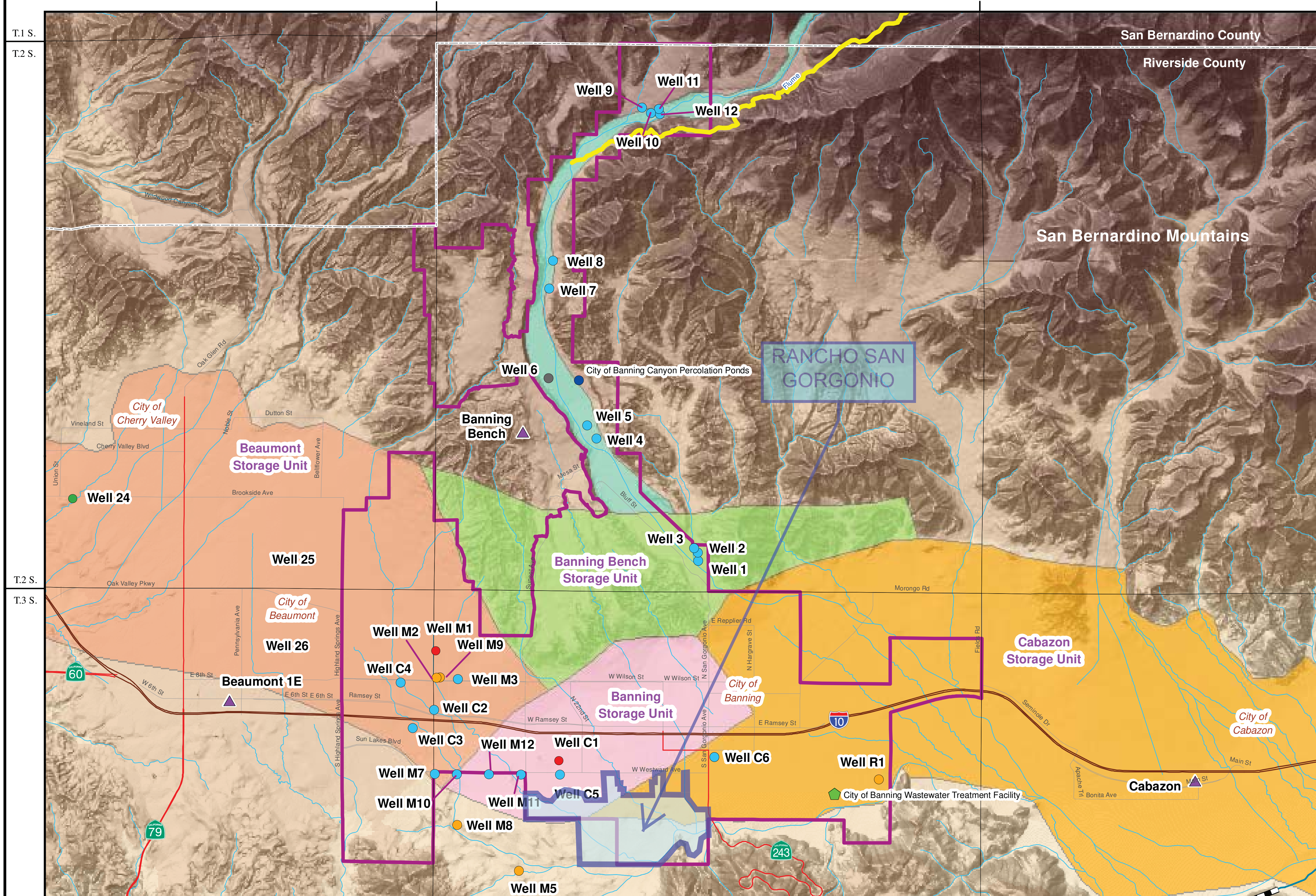
The city purchases SWP water for the purpose of replenishing the Beaumont Basin (See Section 3.2.3).

To date, the city has not pumped all of what is allotted, and therefore maintains a water account balance. The Watermaster is required to maintain and validate the water account balances in the Beaumont Basin. The City of Banning has been allocated a storage volume of 80,000 ac-ft.

Table 4-4 in the UWMP summarizes this account, and that table is included below. Adjustments have been made to include actual production and recharge values from 2011-2014. Therefore, the account balances have deviated from those shown in the 2010 UWMP.

A summary of the historical well production, organized by year and by Storage Unit, is included in Section 4.2.2 and Table 4-3 of the UWMP.

CITY OF BANNING WELL LOCATIONS


T.1 S.
T.2 S.
T.2 S.
T.3 S.
San Bernardino County
Riverside County
San Bernardino Mountains
Well 9
Well 11
Well 12
Well 10
Flume
Well 8
Well 7
Well 6
City of Banning Canyon Percolation Ponds
RANCHO SAN GORGONIO
Banning Bench
Well 5
Well 4
City of Cherry Valley
Beaumont Storage Unit
Well 24
Well 25
Banning Bench Storage Unit
Well 3
Well 2
Well 1
City of Beaumont
Well 26
Well M2
Well M1
Well M9
Well C4
Well M3
Beaumont 1E
Well C2
Banning Storage Unit
City of Banning
Cabazon Storage Unit
Well C3
Well M12
Well C1
Well C6
Well R1
Well M7
Well C5
Well M10
Well M11
Well M8
Well M5
City of Banning Wastewater Treatment Facility
Cabazon
City of Cabazon
Oak Glen Rd
Dutton St
Vineland St
Cherry Valley Blvd
Brookside Ave
Oak Valley Pkwy
Morongo Rd
E Ramsey St
W Ramsey St
Sun Lakes Blvd
Main St
Bonita Ave
60
79
10
243
R.1 W.
R.1 E.
R.1 E.
R.2 E.

EXPLANATION

City of Banning Well Classification

- Active Well
- Active Wells Co-Owned by the City of Banning and Beaumont Cherry Valley Water District
- Inactive Well
- Abandoned Well
- Destroyed Well

Cabazon — Riverside County Flood Control and Water Conservation District Weather Station

- City of Banning Boundary
- Colorado River Aqueduct
- San Jacinto Tunnel
- SCE Trans-Basin Diversion from the Upper Whitewater River Watershed

Ground Water Storage Unit Boundary (Source: USGS, 2006)

- Banning Bench
- Banning
- Beaumont
- Cabazon

22-Jul-11

Prepared by: DWB. Map Projection: UTM 1927, Zone 11.

NORTH

0 0.5 1 Miles

GEOSCIENCE

GEOSCIENCE Support Services, Inc.
P.O. Box 220, Claremont, CA 91711
Tel: (909) 451-6650 Fax: (909) 451-6638
www.gssiwater.com

EXHIBIT 3-3

Figure 4-3

GIS_proj/city_of_banning_2010_UWMP_7-11/0_Fig_4-3_well_locations_7-11.mxd

UWMP Table 4-4 - Ground Water in Storage within the Beaumont Basin (Production Right) – Updated with 2011-2014 actual data (underlined) [acre-ft]						
Year	City's Appropriative Rights After Overlying Producers (excluding storage)[1]	Controlled Overdraft of Annual Operating Yield[2]	Recharge of SWP[3]	Banning Production from Beaumont Storage Unit[4]	Transfers Among Appropriators[5]	Estimated Total Water in Storage[6] (Production Right)
2004	0	5,029	0	3,397.3		1,972
2005	0	5,029	0	1,808.6		5,192
2006	0	5,029	0	1,827.5		8,394
2007	0	5,029	0	2,772.6	1500	12,150
2008	592.2	5,029	1534	2,933.6		16,372
2009	1594.7	5,029	2,741	2,095.0		23,642
2010	1,683.8	5,029	1,338	1,143.6		30,549
2011	1,588.2	5,029	800	1,341.7		36,625
2012	1,679.5	5,029	1,200	1,038.3		43,495
2013	1,816.1	2,514.5	1,200	2,100.7		46,925
2014	1,826.7	0	608	2,585.1		46,774
2015	2,000.4	0	608	2,514		46,869
2016	2,002.0	0	2,595	2,514		48,952
2017	1,966.2	0	2,595	2,514		50,999
2018	1,992.6	0	2,595	2,514		53,072
2019	2,114.6	0	2,595	2,514		55,268
2020	1,635	0	2,595	2,514		56,984
2021	1,613	0	2,595	2,514		58,678
2022	1,591	0	2,595	2,514		60,350
2023	1,569	0	2,595	2,514		62,000
2024	1,547	0	2,595	2,514		63,628
2025	1,478	0	2,595	2,514		65,187
2026	1,456	0	2,595	2,514		66,724
2027	1,434	0	2,595	2,514		68,239
2028	1,411	0	2,595	2,514		69,731
2029	1,389	0	2,595	2,514		71,201
2030	1,328	0	2,595	2,514		72,610
2031	1,306	0	2,595	2,514		73,997
2032	1,284	0	2,595	2,514		75,362
2033	1,262	0	2,595	2,514		76,705
2034	1,240	0	2,595	2,514		78,026
2035	1,194	0	2,595	2,514		79,301

1 Projected allocation of pumping rights per Appendix A-3 ("Projected Allocation of Pumping Rights for the 2004 Beaumont Basin Judgment") of the Draft Beaumont Management Zone Maximum Benefits Program Modeling Scenarios, prepared by Wildemuth Environmental, Inc. dated March 18, 2011. Actual and projected data is included for 2009-2019 based on 2014 Beaumont Basin Watermaster Annual Report

2 Controlled overdraft assigned by the Beaumont Basin Judgment for the ten year period 2004 through 2012 (see Appendix G).

3 State Water Project purchases reported by Watermaster through 2014. 2015 purchases are estimated to be similar to 2014 due to current drought conditions. Projected Purchases (2016-2035) assumed to be 25% of annual delivery to SGPWA anticipated by the SWP Reliability Report (60% of the maximum annual delivery starting in 2016, when EBXII is assumed to be online, SGPWA full Table A entitlement of 17,300 will be accessible).

4 City of Banning production as reported by the City of Banning for years 2004-2014, production includes water received from BCVWD. For years 2015 through 2020, City of Banning pumping is assumed at the average annual pumping value of 2,514 acre-ft/yr.

5 Transfer reported by Watermaster in the Sixth Annual Report of the Beaumont Basin Watermaster dated 2010, by the City from South Mesa Mutual Water Company.

6 Sum of columns 1, 2, 3 and 5 minus column 4, the product is added to the previous year Estimated Total Water in Storage.

This account balance is included in the supply projections for the proposed project in Section 4 below.

It should be noted that the excess pumping capacity in all five storage units provides the city with safeguards in case of emergencies and system maintenance.

3.2.2. Surface Water

As stated previously, surface water naturally recharges the underground water basin across the region, and most directly by the San Gorgonio River and the Whitewater River diversion.

Surface water is not listed as a separate source in Table 3-1 above because it merely recharges basin storage unit pumping production.

3.2.3. State Water Project Water

The SGPWA currently purchases water from the SWP, and sells it to the cities in the region as needed. The city purchases water for the sole purpose of recharging the basin storage units.

The SGPWA has a contract for 17,300 acre-ft/year, but currently only has facilities, called the East Branch Extension, that can deliver 8,650 acre-ft/year. Table 3-1 above includes the amount of SWP water the city expects to purchase from SGPWA in the future, based in part on long-term delivery reliability estimates, established by the Department of Water Resources. SWP deliveries have been reduced in the past few years due to the severe drought conditions effecting the state. As this WSA is a long-range planning document, year-by-year fluctuations in water deliveries are accounted for by utilizing long-range actual and projected delivery levels, estimated to be 60% in the Department of Water Resources Final Reliability Report dated 9/27/10.

The SGPWA is nearing completion of EBX II, the East Branch Extension Phase II, which will bring the Agency's capacity to its full contract amount of 17,300 acre-ft/year. The Crafton Reservoir Expansion project and the Citrus Reservoir have been completed. Six miles of pipeline are installed. The new Citrus Pump Station is completed, and expansion finished at the Crafton Hills Pump Station. Pumps are to be installed in 2016 as part of the expansion of the Cherry Valley Pump Station, at which point full capacity will exist.

In addition, the SGPWA is expecting to double water deliveries (an additional 17,300 acre-ft/year) by purchasing additional SWP water, and is planning to construct spreading ground facilities by which to store surplus imported water, piped in during wet years, for use as needed. Conveyances from the SWP system to this spreading ground are already installed.

The city purchases 25% of what is available from the SGPWA, and the supply projections in the UWMP and the WSA include this as 2,595 acre-ft/year, which is the city's portion of the estimated reliable delivery amount for SGPWA (25% of 60% of full capacity). In partnership with BCVWD, the city's SWP water is discharged into a spreading ground in order to recharge the Beaumont Basin.

3.2.4. Recycled Water

The City of Banning currently has no facilities to provide recycled water, however such facilities are under way and anticipated to be in service by 2020. The city anticipated a phased approach to providing recycled water, with the first phase providing 1,650 acre-ft/year, with similar capacities being added roughly every ten years thereafter, as demand increases. See Section 5 below for additional information about the recycled water system.

Additional sources of recycled water are discussed in Section 4 below.

Use of recycled water displaces what would have been domestic, potable water demand, and therefore is treated as a supply, up to the limit of the demand displacement.

3.3. Water Quality

Section 5.9 of the UWMP summarizes historical water quality data, and reaches the conclusion that current water quality is excellent. However, subsequent to completion of the 2010 UWMP, the state established a new standard for Chromium-6. The city's wells all met the previous standard of 50 ppb, however 7 of 21 wells currently do not meet the newly established level of 10 ppb. Concentrations of Chromium-6 in these 10 wells range from 10.0 ppb up to 22.5 ppb.

The city is currently evaluating options to address Chromium-6 treatment, which is believed to be naturally occurring. One possible solution is to block out the source layer in the wells, and, if viable, this would be a relatively inexpensive and feasible solution. There would be a loss in pumping capacity, as water from the impacted layer could not be drawn. A second alternative is with well-head treatment, which is more expensive but effective. Finally, as discussed further below, the product of impacted wells could be used as nonpotable water, which would displace current potable uses and effectively increase supply by reducing demand.

The City of Banning is required to resolve the Chromium-6 issue, and to that end the city is proactively researching alternatives. Regardless of the means necessary to remedy the existing condition, Chromium-6 does not represent a potential loss in supply, simply a potential loss in existing pumping capacity. Chromium-6 is not impacting all of the water in any given basin unit, just at particular levels within some of the deeper wells. New wells could be installed as needed to maintain supply by pumping from levels not affected by the presence of above acceptable concentrations.. And, as discussed in Section 4.7.1, wells exceeding Chromium-6 standards for potable water could be used for irrigation purposes, such as for golf courses, freeing up potable water currently used for that purpose.

3.4. Water shortage/emergency contingencies

The city has adopted a Water Storage Contingency Plan in order to address emergency and disaster planning as related to water supply and fire suppression. Details are discussed in Sections 5.4 through 5.6 of the UWMP.

In response to the current, prolonged drought conditions, Governor Jerry Brown declared a State of Emergency in January 2014, followed by Executive Orders in April 2014, September 2014, and January 2015, encouraging a concerted effort towards voluntary reductions in water usage state-wide. Due to record-low snow pack levels this spring, and due to less than desired levels of water use reduction, the Governor issued an Executive Order on April 1,

2015, directing the State Water Board to issue mandatory water reductions, with the goal of achieving a 25% reduction in urban potable water use state-wide.

In order to accommodate conservation levels already achieved by some water agencies, the Board assigned tiered reduction requirements for each agency, based on the varying levels of reduction they had already achieved. As such, the City of Banning was assigned a required water use reduction of 32%. The basis of this water reduction is the actual residential water usage for the period July through September of 2014. That level was 181.2 gallons per capita per day (residential uses only), and therefore the target is 123.2 gpcd. (Note that a higher projected rate is utilized in both the UWMP and this WSA, in order to assess whether or not there will be adequate water supply. See the next section for more discussion.)

In addition to the water use reduction targets, the following provisions are also required:

1. Prohibition on using potable water for irrigation of ornamental turf in street medians
2. Prohibition on using potable water for outdoor irrigation of new home construction without drip or microspray systems.

These emergency requirements are not permanent, however there is no expiration date, and depending on climate conditions and actual conservation levels, these requirements will last for an extended and indefinite duration.

3.5. Current and Projected Demand

The methodology used to determine city-wide water demand in the UWMP was followed in this WSA. Table 3-8 in the UWMP defines the projected water use through 2035, broken down by land use type, as was determined based upon historical data.

Projected demand in UWMP is based on population growth and estimated per capita water use. The current city General Plan projects build-out in 2061, with a population of 80,226. This reflects a 2% population growth rate. Note that population projections in the UWMP included the project area, determined to be 3693 persons based on 1399 dwelling units as shown in Section 4.2 below.

Current (2010) city water usage is calculated to be 229 gallons per capita per day. The projections follow state guidelines, which calculates to 315 gallons per capita per day (UWMP, page 37). However, state law currently in effect will require a 20% reduction in water use by the year 2020, which is reflected in the calculations in Table 3-2. Note that actual population and total water production (delivered supply) are included as provided by the city for 2010 through 2014. The additional mandatory water use reduction levels discussed above are not included in the projections in this WSA because it is unknown how long those requirements will remain in place.

Table 3-2 Current Projected City-wide Water Demand - Based on Land Use Factors[1] [acre-ft]											
(Table 3-8, 2010 UWMP, with 20x2020 factored) – Actual Data from 2010-2014											
Water Use Sectors	Average % Use of Water Supply 2005-2010	2010*	2011*	2012*	2013*	2014*	2015	2020	2025	2030	2035
Population[2]		29603	29721	29982	30137	30306	30491	36086	39842	43989	48567
Per Capita Water Use [gpcd] [3]		229	254	255	259	249	283	252	252	252	252
Single Family Residential	56.2%	4412	4751	4819	4914	4759	5440	5724	6320	6978	7704
Multi-family Residential	2.3%	120	194	197	201	195	223	236	260	288	317
Commercial/Institutional	26.2%	1908	2215	2247	2291	2219	2536	2669	2947	3254	3593
Industrial	1.2%	95	101	103	105	102	116	119	131	145	160
Irrigation	11.9%	939	1006	1020	1040	1008	1152	1211	1337	1476	1629
Other	1.1%	31	93	94	96	93	106	111	122	135	149
Sales to other Agencies	1.1%	82	93	94	96	93	106	113	125	138	153
Total [acre-ft/yr]		7586	8454	8575	8743	8468	9680	10183	11243	12413	13705

*Actual population and total demand for 2010-2014

1 For more information regarding Land Use Factors and Water Use Sector percentages, refer to Section 3.1.2 of the 2010 UWMP

2 2010 population is from the US Census. Population for 2011-2015 is from the California Department of Finance, Report E-5.

3 Per capita water use for 2010-2014 is actual levels, based on total water delivered, divided by the population. There is a conversion factor of 892.7 gallons per day to per acre-feet per year. Per capita water use for 2015 and on is per the 2010 UWMP, and is based on a 10-year average, adjusted for the 20x2020 requirement. Refer to Section 3.2 of the 2010 UWMP.
Note that conservatively, the population for 2020 and on was not re-adjusted by the city's expected growth rate of 2%, even though actual population growth up to 2015 is well below the 2010 projections. The population projections include an ultimate buildout of 1399 dwelling units for the project area per section 4.2.

As can been seen in Table 3-2, actual data from 2010-2014 shows a trend of lower per capita use, and lower total water consumption, than was projected in the 2010 UWMP.

3.6. Assessment of Current Supply and Demand

Table 3-3 below is a summary of Tables 3-1, 3-2 and UWMP Table 4-4, providing an analysis of the city's projected surplus, as determined in the UWMP. Based on the current plan and projections, the city can meet future water needs.

Table 3-3: Supply and Demand (20x2020) Comparisons – Current City UWMP with Water Basin Account Balance – Actual Data from 2010-2014 [acre-ft]

Average Water Years										
	2010	2011	2012	2013	2014	2015	2020	2025	2030	2035
Total Supply*	37,530	43,737	51,020	53,591	52,654	54,824	67,667	76,123	83,824	90,821
Total Demand**	7,586	8,454	8,575	8,743	8,468	9,680	10,183	11,243	12,413	13,705
Supply Surplus* **	**29,944**	**35,283**	**42,445**	**44,848**	**44,186**	**45,145**	**57,484**	**64,880**	**71,411**	**77,116**

*Total Supply equals the account balance from the Beaumont Basin (per Table 4-4 in the UWMP, as provided in Section 3.2.1.5 above) plus the Supply from Table 4-1 of the UWMP (Table 3-1 above).

**Total Demand is from Table 3-8 of the UWMP (Table 3-2 above). The demand calculations include an ultimate buildout of 1399 dwelling units for the project area per section 4.2.

***The surplus is an accumulation of year-by-year net additions to the Beaumont Basin (not the amount shown being added in that year).

4. Proposed Project

4.1. Proposed Project Build-out Estimate

It is anticipated for planning purposes that project build-out will occur in 6 phases, one phase every three years, for a total duration of 18 years. Market conditions will dictate this pace and it is highly likely that build-out will occur at a slower pace. With construction estimated to commence in 2017, build-out would occur by 2035. Table 4-1 below reflects a linear build-out trend, with an average of 2.64 persons per dwelling, as per the city General Plan.

Table 4-1 - Forecasted Project Build-out

Phase	Year	Dwelling Units	Population
1	2017	108	285
	2018	215	568
	2019	323	853
2	2020	443	1170
	2021	563	1486
	2022	682	1800
3	2023	830	2191
	2024	978	2582
	2025	1126	2973
4	2026	1610	4250
	2027	2094	5528
	2028	2579	6809
5	2029	2817	7437
	2030	3055	8065
	2031	3294	8696
6	2032	3324	8775
	2033	3354	8855
	2034	3385	8936

4.2. Current UWMP Demand Comprising Project Area

The land comprising this proposed community is included in the current UWMP, including the 160 acres to be annexed into the city from the county (see Exhibit 3-1), however at lower densities than are proposed. Therefore, per Section 5 of Water Code 10910, it must first be determined if the existing 20-year projections can meet the proposed increased demands. This WSA relies upon the UWMP and updated actual data through 2014 and will only address the changes proposed with this master planned community.

Listed in Table 4-2 below is a summary of the land use zones that currently constitute the property being developed, from the city General Plan (see Exhibit 4-1). The total number of projected dwelling units will then be compared with what is proposed, and the increase in dwelling units is what will be used to assess the ability of the water supply, with future projections, to serve the proposed development. Note that as the City's General Plan assumes actual development will occur at about 75% of the maximum density, therefore, both the General Plan and the UWMP have already included development of the project area at 1399 dwelling units and the corresponding population of 3693 persons.

Table 4-2 - Existing Land Use with Projected Build-out Density

Type	Zoning Density	Dwelling Units per Acre	Acres	Maximum Dwelling Units	75% of Max. Density*
Ranch/Agriculture**	10 ac min.	0.10	149.49	8	6
Rural SFR	0-1 du/ac	1	26.78	26	20
Very Low SFR***	0-2 du/ac	2	545.57	1067	800
Low SFR	0-5 du/ac	5	0	0	0
Medium SFR	0-10 du/ac	10	14	140	105
Very High MFR	19-24 du/ac	24	26	624	468
Park	0 du/ac	0	0	0	0
Open Space (Resources)	0 du/ac	0	69	0	0
			830.84	1865	**1399**

*The City General Plan assumes 75% of maximum density for build-out conditions

**This Type is comprised of 8 parcels, all less than 20 acres each, therefore only 8 units max

***Maximum units calculated by parcel, not by gross acreage

In order to determine the change in projected water demand due to the proposed project, an estimate of the change in dwelling units, or population, is first required. Table 4-3 below shows an evaluation of the change in dwelling units.

Table 4-3: Proposed Land Use with Maximum Build-out Density				
Type	Zoning Density	Target Dwelling Units per Acre	Acres	Maximum Dwelling Units
Single-Family Residential**	0.5-6	2-6	362.8	1533
Multi-Family Residential	12.1-18.0	18	51.7	930
Age-Qualified Residential	6.1-12.0	6.5	115.94	754
Mixed Use *	12.1-18.0	18	9.33	168
Parks & Open Space	n/a	n/a	209.18	0
Right-of-way	n/a	n/a	77.17	0
Public Facility	n/a	n/a	3.62	0
Storm Drain Easement	n/a	n/a	1.1	0
			830.84	**3385**
			Increase over current zoning:	**1986**
(see Table 4-2 above: 75% of currently projected build-out)				

*Neighborhood Commercial with Residential Overlay (9.33 ac dedicated to MFR)

**84 du (14 ac) are dedicated to the residential overlay within PA 16-C

Table 4-4 below provides a comparison of current versus proposed population, organized in 5 year increments for inclusion in the calculations below. Note that the 2010 UWMP based population estimates on the city's 2008 Draft Housing Element Update, which included the Butterfield Ranch Specific Plan with 5387 dwelling units. As a result of the settlement to a legal challenge, the maximum proposed units were reduced by 525, equating to a reduction in population of 1386. Thus, the effective increase in dwelling units over that which was analyzed in the 2010 UWMP is 1461 (1986-525). This change is included in the population calculations below. The reduction is conservatively assumed to be realized starting in 2030.

Table 4-4 - Change in Population						
Year	2015	2020	2025	2030	2035	2061
Current	0	328	739	1149	1559	3693
Proposed*	0	1170	2973	6679	7550	7550
Increase	0	842	2234	5530	5991	3857

* includes a 525 dwelling unit (1386 population) reduction due to change in maximum units for the Butterfield Ranch SP starting in 2030

4.3. New Sources of Water Due to Project

There are three sources of water supply that will result from the development of Rancho San Gorgonio, including stormwater recharge, recycled water, and return flows from irrigation.

4.3.1. Stormwater Recharge

The project lies over the Banning and Cabazon Storage Units. The project is planning to implement various techniques that will increase percolation and recharge opportunities within the project area, which at a minimum will limit the decrease in percolation due to development. Furthermore, the proposed retention basins, pervious pavement and other storm water quality best management practices will result in an increase in recharge, as storm runoff will be captured and retained (see below).

Natural percolation from large storm events is generally not very high in relation to the volume of runoff, however when a significant portion of that runoff is captured and retained, recharge will be enhanced. An estimate of the average volume of runoff that could be recharged is included below.

The Rancho San Gorgonio master planned community will further augment surface water recharge, through the network of retention and detention basins, that will capture not only small and large storm runoff, but nuisance flows from other urban uses.

An estimate of the volume of stormwater recharge is included in Tables 4-5 and 4-6 below. This estimate conservatively assumes that most rainfall from typical events (not larger storms) either runs off, evaporates, or is absorbed by vegetation, with essentially none being infiltrated naturally. Table 4-5 shows the average rainfall and evapotranspiration rates for the area, and only for those months where rainfall exceeds evapotranspiration.

Table 4-5: Rainfall and Evapotranspiration				
	Jan	**Feb**	**Dec**	**Totals**
Rainfall (in)	3.1	3.0	2.4	
ET[1] (in)	1.55	2.52	1.55	
Infiltration (in) (Rainfall-ET)	1.55	0.48	0.85	2.88

[1] California Irrigation Management Information System. Data only shown for months where rainfall exceeds evapotranspiration.

It is assumed that the full balance of rainfall that does not evaporate will be captured by the retention basins proposed throughout the project. The retention basins are designed to contain the full 100-year 3-hour storm, which is a significant event and represents runoff in excess of typical, "average" storm events, therefore the provided storage volume will be sufficient to hold average storm events.

The estimated recharge is therefore 199 acre-feet per year per the table below. Per the MPD, over 90 acre-feet of retention capacity is proposed, sufficient to capture an average of 3 or more storm events per year.

Table 4-6: Estimate of Rainfall Recharge		
Project Area	830.8	acres
Infiltration	2.88	in
Recharge Volume **(infiltration converted to feet multiplied by area)**	199	**acre-ft**

4.3.2. Recycled Water generated from Project Effluent

Refer to Section 5 below for a discussion and calculation of irrigation demand for the project and the potential yield of recycled water from project effluent. The project will contribute flows sufficient to generate approximately 470 acre-feet per year of recycled water. The project will utilize approximately 218 acre-feet per year for common area irrigation, leaving 252 acre-feet per year for use elsewhere throughout the city, offsetting the use of potable water for irrigation and other allowed uses of recycled water.

4.3.3. Return flows from Irrigation

Refer to Section 4.8 of the 2010 UWMP for a discussion regarding return flows, which are defined to be 25% of irrigation water. These flows are not absorbed by plants, but instead infiltrate into the ground and eventually into the aquifer, replenishing basin storage. Only the recycled water generated from effluent from this project is included in the return flow analysis, as the private area irrigation will be minimized per water conservation ordinances and codes. From the analysis in Section 5 for recycled water yield from project effluent, approximately 470 acre-feet per year can be utilized for irrigation, with 25%, 118 acre-feet per year, recharging the aquifers as return flows.

4.4. Proposed Water Demand Factors

The UWMP establishes 315 gallons per day per capita as the baseline water demand. The baseline figure is prior to the impacts of the "20x2020" requirement. Table 4-7 below utilizes these projected city-wide demand rates for determining the impact from Rancho San Gorgonio, with a 10% reduction included for 2015 (283 gpd), and the full 20% reduction by 2020 and thereafter (252 gpd).

Table 4-7 - Total Project Water Demand - Based on City-wide Land Use Factors[1] (with 20x2020 factored) [acre-ft]

Water Use Sectors	Average % Use of Water Supply 2005-2010		2015	2020	2025	2030	2035
Project Population[2]			0	1170	2973	8065	8936
Per Capita Water Use [gpcd][3]			283	252	252	252	252
Single Family Residential	56.2%		0	185	472	1280	1417
Multi-family Residential	2.3%		0	8	19	52	58
Commercial/Institutional	26.2%		0	86	220	597	661
Industrial	1.2%		0	4	10	27	30
Irrigation	11.9%		0	39	100	271	300
Other	1.1%		0	4	9	25	28
Sales to other Agencies	1.1%		0	4	9	25	28
Total [acre-ft/yr][4]			0	330	839	2277	2522

1 For more information regarding Land Use Factors and Water Use Sector percentages, refer to Section 3.1.2 of the 2010 UWMP.

2 See Table 4-1. This is the total projected build-out population of the project, not including a reduction due to the General Plan population of 3693 (1399 dwelling units multiplied by 2.64 persons per unit) already included in population projections in the 2010 UWMP.

3 There is a conversion factor of 892.7 gallons per day to per acre-feet per year. Per capita water use for 2015 and on is per the 2010 UWMP, and is based on a 10-year average, adjusted for the 20x2020 requirement. Refer to Section 3.2 of the 2010 UWMP.

4 The total demand calculated in this table is inaccurate because the per capita water use rates are not realistic for projections of new demand, as existing water use city-wide does not linearly increase due to new development (see Section 4.4). Further, these totals do not allow for the population of 3693 already included in the 2010 UWMP for the project area.

The totals in Table 4-7 do not reflect realistic potable water demand for the project. First, these numbers cannot be added to the assessment in the 2010 UWMP because the project area was already included in those calculations (1399 dwelling units, resulting in a population of 3693, per Section 4.2). Further, the reduction in dwelling units for the Butterfield Specific Plan is not factored (525 dwelling units, for a population of 1386, per Section 4.2). Second, the water demand factors assume new development will result in an increase in water proportional to current use. However, additional golf courses relying on potable water for irrigation will not be built, new car washes will utilize recycled water, common area irrigation in the project area will be irrigated with recycled water, are just a few examples inflated demand factors used in Table 4-7.

Therefore, in order to assess the impact Rancho San Gorgonio will have over the current 2010 UWMP projections, Table 4-7 is revised to eliminate the population being included already for the project area and the reduced maximum for the Butterfield Specific Plan. These factors are included in Table 4-4 above. Table 4-8 below incorporates these adjusted figures to estimate the project water demand per current city-wide projected usage rates.

Table 4-8 - Project Water Demand (increase over General Plan) Based on City-Wide Land Use Factors[1] (with 20x2020 factored) [acre-ft]

Water Use Sectors	Average % Use of Water Supply 2005-2010		2015	2020	2025	2030	2035
Project Population[2]			0	842	2234	5530	5991
Per Capita Water Use [gpcd][3]			283	252	252	252	252
Single Family Residential	56.2%		0	134	355	877	950
Multi-family Residential	2.3%		0	5	15	36	39
Commercial/Institutional	26.2%		0	62	165	409	443
Industrial	1.2%		0	3	8	19	20
Irrigation	11.9%		0	28	75	186	201
Other	1.1%		0	3	7	17	19
Sales to other Agencies	1.1%		0	3	7	17	19
Increase over 2010 UWMP projections due to the net increase in dwelling units of 1461 [acre-ft/year] [2]			0	238	631	1561	1691

1 For more information regarding Land Use Factors and Water Use Sector percentages, refer to Section 3.1.2 of the 2010 UWMP

2 See Table 4-4. Not including demand calculated in the 2010 UWMP for the project area (at lower General Plan densities) and with the reduction in maximum dwelling units for Butterfield Ranch Specific Plan, taking effect in 2030. Increase in dwelling units is per Section 4.2.

3 There is a conversion factor of 892.7 gallons per day to per acre-feet per year. Per capita water use for 2015 and on is per the 2010 UWMP, and is based on a 10-year average, adjusted for the 20x2020 requirement. Refer to Section 3.2 of the 2010 UWMP.

Table 4-8 requires additional refinement to better estimate the expected water demand for Rancho San Gorgonio. As an assessment of recent, actual water use demonstrates, the City of Banning is already using water at the 20% (20x2020) reduction rate. However, this project will have a lower water usage than existing development in the city has, with new water conserving requirements and methods now in effect, as described below.

Most significantly, this project will utilize recycled water for common area landscaping. As shown in Section 5.7 below, there is a projected irrigation demand of 218 acre-feet per year at build-out, which will be supplied by nonpotable water (see Section 5 for a discussion on sources of recycled water). Further, it is anticipated that the project will generate effluent sufficient for 470 acre-feet per year of recycled water (Section 5.5 below), with the excess capacity of 252 acre-feet per year and/or contributing to recycled water demand throughout the city or being recharged back into the groundwater basins for reuse via the WWTP.

Potable water use for irrigation of private landscaping will be restricted by the Rancho San Gorgonio Specific Plan and by city ordinance, by requiring low-water-use and drought-tolerant species, and by requiring efficient irrigation. City Ordinance 1012 estimates a reduction in irrigation of two-thirds, and (conservatively) estimates outdoor irrigation at 50% of total urban water usage.

Regarding indoor water use, high efficiency-low water use appliances and plumbing fixtures are now required by building code, and will be incorporated into new building construction for this project. Per the California Green Building Code, and consistent with 20x2020, it is estimated that indoor water reduction of 20% will be attained, at a minimum.

Therefore, a more applicable water demand factor needs to be determined for Rancho San Gorgonio. The 2010 UWMP estimates residential water demand to be 0.52 acre-feet per dwelling unit per year, or 464 gallons per dwelling unit per day. In order to assure a level of conservation, this figure is just reduced by 20%, consistent with the UWMP and 20x2020, but is not further reduced as will likely be the case as discussed above. Therefore, 464 gpd is reduced to 371 gpd, and utilizing the General Plan estimate of 2.64 persons per dwelling unit, the demand is converted to 141 gallons per capita per day.

These targets will be achieved in part through landscape and irrigation design standards included in the project Specific Plan. Furthermore, landscaping, irrigation, and building plumbing requirements will be enforced by the city at building permit issuance. As stated in the UWMP, the city has determined that current city ordinances, along with the building codes, will achieve at least a 20% reduction in water use. Again, as stated earlier, the additional emergency water use reductions are not being included in calculations in this WSA due to the unknown duration of those requirements. However, should those requirements remain for an extended period, actual water use will be significantly less than is projected herein.

4.5. Proposed Project Demands

From Table 4-3 above, the estimated increase in dwelling units is 1986 over what was analyzed in the 2010 UWMP. Per the City of Banning Water Master Plan (WMP, 1994), persons per dwelling is estimated at 2.64 across all residential density types. As discussed in Section 4.2, the Butterfield Ranch Specific Plan had a reduction of 525 units, resulting in a decrease in population of 1386. Therefore, the projected population increase at build-out will be 3857, changing the city-wide estimated build-out population to 84,083, using a 2.0% growth rate.

However, as the project is anticipated to be built out in 18 years, this population increase, as shown in Table 4-1 above, is utilized in the calculations. Note that projections in this WSA will follow the time horizon used in the UWMP for consistency.

Table 4-9 shows the estimated project demand, utilizing the adjusted demand of 141 gpcd from Section 4.3 and 4.4 above.

Table 4-9 – Total Project Water Demand
With Adjusted Demand Rates [acre-ft]

Water Use Sectors[1]	Expected Average % Use of Water Supply		2015	2020	2025	2030	2035
Project Population[2]			0	1170	2973	8065	8936
Per Capita Water Use [gpcd][3]			141	141	141	141	141
Single Family Residential	67.6%		0	223	567	1538	1704
Multi-family Residential	32.4%		0	107	272	739	818
Commercial/Institutional	0.0%		0	0	0	0	0
Industrial	0.0%		0	0	0	0	0
Irrigation	0.0%		0	0	0	0	0
Other	0.0%		0	0	0	0	0
Sales to other Agencies	0.0%		0	0	0	0	0
Total [acre-ft/yr]			0	185	469	1274	1411

1 Water Use Sectors based on Specific Plan Statistics. Mixed use PA included in Multi-family Residential. Common areas to be irrigated with nonpotable recycled water.

2 See Table 4-1.

3 There is a conversion factor of 892.7 gallons per day to per acre-feet per year. Per capita water use per City Ordinance 1012 for outdoor water use, and CalGreen Building Code for indoor water use (20% reduction). Refer to Section 4.3.

In order to assess the impact the project will have on the projections made in the 2010 UWMP, two methodologies are set forth below. First, projections are made based on city-wide demand factors, which conservatively, apply current city water use rates to all future development, including Rancho San Gorgonio. These numbers are shown in Table 4-10 below, and modify Table 3-2 (2010 UWMP Current Projected City-wide Water Demand) with the calculated increases from the project, shown in Table 4-8.

Table 4-10 – Proposed Projected City Water Demand - Based on City-wide Land Use Factors[1] (with 20x2020 factored) [acre-ft]

Water Use Sectors[1]	Average % Use of Water Supply 2005-2010		2015	2020	2025	2030	2035
Population[2]			30491	36928	42076	49519	54558
Per Capita Water Use [gpcd][3]			283	252	252	252	252
Single Family Residential	56.2%		5440	5858	6675	7856	8655
Multi-family Residential	2.3%		223	240	273	321	354
Commercial/Institutional	26.2%		2536	2731	3112	3662	4035
Industrial	1.2%		116	125	143	168	185
Irrigation	11.9%		1152	1240	1413	1663	1833
Other	1.1%		106	115	131	154	169
Sales to other Agencies	1.1%		106	115	131	154	169
Total [acre-ft/yr]			9679.8	10424	11878	13978	15400

1 For more information regarding Land Use Factors and Water Use Sector percentages, refer to Section 3.1.2 of the 2010 UWMP

2Population from Table 3-2 plus increase from Table 4-4. Not including population in the 2010 UWMP for the project area (at lower General Plan densities) and with the reduction in maximum dwelling units for Butterfield Ranch Specific Plan, taking effect in 2030.

3 There is a conversion factor of 892.7 gallons per day to per acre-feet per year. Per capita water use for 2015 and on is per the 2010 UWMP, and is based on a 10-year average, adjusted for the 20x2020 requirement. Refer to Section 3.2 of the 2010 UWMP.

Table 4-10 presents the city water demand projections from the 2010 UWMP with a net increase of 1461 dwelling units (3857 population increase) due to the project, but at unrealistic per capita rates and city-wide demand factors.

As discussed in Section 4.4 above, the city-wide water demand use factors misrepresent realistic water use demand rates expected for Rancho San Gorgonio. Therefore, the impact on projected city water demand is further assessed, with Table 4-11 below relying on the residential rate of 76 gpcd determined in Section 4.4 above.

Table 4-11 - Proposed Projected City Water Demand [acre-ft]
Non-Project Demand Based on City-wide Land Use Factors (with 20x2020)[1]
Project Demand Based on Residential Per Capita Usage Rates[2]

Water Use Sectors	Average % Use of Water Supply 2005-2010	2015	2020	2025	2030	2035
Population (per General Plan)[3]		30491	36086	39842	43989	48567
less RSG's current (General Plan) project area population and Butterfield SP Reduction[4]			-328	-739	-2535	-2945
Adjusted Population, without Project		30491	35758	39103	41454	45622
Per Capita Water Use [gpcd][1]		283	252	252	252	252
Single Family Residential	56.2%	5440	5673	6203	6576	7237
Multi-family Residential	2.3%	223	232	254	269	296
Commercial/Institutional	26.2%	2536	2645	2892	3066	3374
Industrial	1.2%	116	121	132	140	155
Irrigation	11.9%	1152	1201	1314	1392	1532
Other	1.1%	106	111	121	129	142
Sales to other Agencies	1.1%	106	111	121	129	142
Subtotal [acre-ft/yr][5]		9679.8	10094	11038	11701	12878
Project Population[6]			1170	2973	8065	8936
Per Capita Water Use [gpcd][2]			141	141	141	141
Subtotal, Project [acre-ft/yr][5]			185	469	1274	1411
Gross Total			10279	11507	12975	14289
Increase over (decrease from) current projections[7]			96	264	562	584
Additional infiltration recharge due to project[8]			(26)	(66)	(180)	(199)
Additional recycled water available to reduce potable use elsewhere in the city[9]			(33)	(84)	(227)	(252)
Return flows from irrigation (25% of recycled water generated)[10]			(15)	(39)	(106)	(118)
Net Total: Increase (decrease) in demand less project-generated sources[11]			22	75	49	16

1 For more information regarding Land Use Factors and Water Use Sector percentages, refer to Section 3.1.2 of the 2010 UWMP. Per capita water use for 2015 and on is per the 2010 UWMP, and is based on a 10-year average, adjusted for the 20x2020 requirement. Refer to Section 3.2 of the 2010 UWMP.

2 Project Per capita water use per City Ordinance 1012 for outdoor water use, and CalGreen Building Code for indoor water use (20% reduction). Refer to Section 4.3.

3 General Plan Population per 2010 UWMP Table 2-3, with 2015 population from California Department of Finance, Report E-5.

4 Removing population included in the 2010 UWMP for the project area (at lower General Plan densities) and the 1386 reduction in maximum population from the Butterfield Ranch Specific Plan. See Table 4-4.

5 There is a conversion factor of 892.7 gallons per day to per acre-feet per year.

6 See Table 4-1.

[7] Gross Total minus Total from Table 3-2.

[8] Additional stormwater captured and infiltrated above the existing condition . See Section 4-3 and Section 5.

[9] Project effluent treated and processed into recycled water for irrigation purposes elsewhere throughout the city. Recycled water use on-site is already factored by not increasing potable demand. See Section 4-3 and Section 5.

[10] See Section 4-3.

[11] Increase over (decrease from) current projections minus project stormwater recharge, recycled water use elsewhere in the city, and return flows from irrigation.

Table 4-11 represents the realistic demand Rancho San Gorgonio will have on city potable water. The projections in the 2010 UWMP are incorporated, modified to reflect the increase in population from the project, with water usage rates which are representative of how Rancho San Gorgonio will be developed, including the effects of indoor and outdoor water conservation measures, the use of recycled water for irrigation, and due to stormwater capture and recharge improvements. Based on the resulting net total water demand, the city will be able to provide potable water to the project.

4.6. Evaluation of UWMP to meet Project Demand

Current supply projections are included in the UWMP (Table 5-9), based on past record data, with projections based on the trends established by that actual data. Those projects have been modified to include the Water Basin Account Balance, as per the table on page 42 of "Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units, and Available Water Supply from the Beaumont Basin", Geoscience Support Services, Inc., 2011.

The basin account balance represents surplus water, annually, that the city does not draw but which it has the right to pump. The city has not been drawing its full allotment, therefore the water account balance has been increasing, and is projected to increase over time.

Table 4-12: Supply and Demand (20x2020) Comparisons – Current City UWMP - Without Project (UWMP Table 5-9) [acre-ft]						
Average Water Years						
	2010	2015	2020	2025	2030	2035
Total Supply	9,552	15,563	15,792	16,045	16,323	16,628
Total Demand	7,586	9,680	10,183	11,243	12,413	13,705
Supply Surplus	**1,966**	**5,883**	**5,609**	**4,802**	**3,910**	**2,923**
Single-dry Water Years						
Total Supply	N/A	12,043	12,314	12,608	12,928	13,235
Total Demand	N/A	9,162	9,638	10,642	11,749	12,972
Supply Surplus	**N/A**	**2,881**	**2,676**	**1,966**	**1,179**	**263**
Multiple-dry Water Years						
Total Supply	N/A	12,784	13,038	13,316	13,619	13,926
Total Demand	N/A	7,635	8,032	8,868	9,791	10,810
Supply Surplus	**N/A**	**5,149**	**5,006**	**4,448**	**3,828**	**3,116**

1 See Section 5.1 of the 2010 UWMP for the discussion of Average, Single-dry, and Multiple-dry Water Years.

With the proposed project, the table above has been revised below to include the project demands. Table 4-13 below conservatively uses the city-wide demand factors for the project as calculated in Table 4-8, and projected out including city demand in Table 4-10.**Table 4-13: Supply and Demand (20x2020) Comparisons – Current City UWMP With Project, Using Conservative City-Wide Demand Factors [acre-ft]**

Average Water Years						
	2010	2015	2020	2025	2030	2035
Total Supply	9,552	15,563	15,792	16,045	16,323	16,628
Total Demand	7,586	9,680	10,424	11,878	13,978	15,400
Supply Surplus	**1,966**	**5,883**	**5,368**	**4,167**	**2,345**	**1,228**
Single-dry Water Years						
Total Supply	N/A	12,043	12,314	12,608	12,928	13,235
Total Demand	N/A	9,162	9,866	11,242	13,230	14,576
Supply Surplus	**N/A**	**2,881**	**2,448**	**1,366**	**-302***	**-1,341***
Multiple-dry Water Years						
Total Supply	N/A	12,784	13,038	13,316	13,619	13,926
Total Demand	N/A	7,635	8,222	9,369	11,025	12,147
Supply Surplus	**N/A**	**5,149**	**4,816**	**3,947**	**2,594**	**1,779**

1 See Section 5.1 of the 2010 UWMP for the discussion of Average, Single-dry, and Multiple-dry Water Years.

* See "UWMP Table 4-4" revised in Section 3.2 above. Projected shortfalls will be mitigated by the city's water account balance.

In this worst-case scenario, utilizing conservative city-wide demand factors, Table 4-13 demonstrates that there will be sufficient supply to support the proposed project in all cases except for Single-dry Water Years starting in 2030. Table 4-14 provides a comparison of the projected water account balance with the Single-dry Water Year shortfalls, indicating that there is a substantial surplus of water.

Table 4-14: Single-dry Water Year Surplus or Shortfall and Water Account Balance - With Project using Conservative City-wide Demand Factors [acre-ft]						
Single-dry Water Years						
	2010	2015	2020	2025	2030	2035
Supply Surplus	N/A	2,881	2,448	1,366	-302*	-1,341*
Water Account Balance*	30,549	46,869	56,984	65,187	72,610	79,301
Sufficient Water Account Balance	**N/A**	**N/A**	**N/A**	**N/A**	**Yes**	**Yes**

* See "UWMP Table 4-4" revised in Section 3.2 above. Projected shortfalls will be mitigated by the city's water account balance.

A more realistic assessment of projected supply and demand is provided in Table 4-15 below, relying on a project water demand of 141 gpcd, expected to be the likely usage rate based on current water conservation ordinances and code, as discussed in Section 4.4.

Table 4-15: Supply and Demand Comparisons – Total of Non-Project Based on Land Use Factors (with 20x2020)[1] plus Project based on Residential Per capita usage rates[2][acre-ft]						
Average Water Years[3]						
	2010	2015	2020	2025	2030	2035
Total Supply	9,552	15,563	15,792	16,045	16,323	16,628
Total Demand	7,586	9,680	10,205	11,318	12,462	13,721
Supply Surplus	**1,966**	**5,883**	**5,587**	**4,727**	**3,861**	**2,908**
Single-dry Water Years						
Total Supply	N/A	12,043	12,314	12,608	12,928	13,235
Total Demand	N/A	9,162	9,658	10,713	11,795	12,987
Supply Surplus	**N/A**	**2,881**	**2,656**	**1,895**	**1,133**	**248**
Multiple-dry Water Years						
Total Supply	N/A	12,784	13,038	13,316	13,619	13,926
Total Demand	N/A	7,635	8,049	8,927	9,830	10,822
Supply Surplus	**N/A**	**5,149**	**4,989**	**4,389**	**3,789**	**3,104**

1 For more information regarding Land Use Factors and Water Use Sector percentages, refer to Section 3.1.2 of the 2010 UWMP

2 Population from Table 3-2 plus increase from Table 4-4. Not including population in the 2010 UWMP for the project area (at lower General Plan densities) and with the reduction in maximum dwelling units for Butterfield Ranch Specific Plan, taking effect in 2030.

3 See Section 5.1 of the 2010 UWMP for the discussion of Average, Single-dry, and Multiple-dry Water Years.

As summarized in Table 4-15 above, the increase in potable water demand from the project will be mitigated by increases in stormwater recharge, recycled water utilized for irrigation, and return flows from irrigation, such that the city will be able to adequately serve the project, consistent with the current projections in the 2010 UWMP.

This analysis reflects projected supplies that the city has physical access to and the legal right to acquire and provide.

An additional assessment is required to determine if the city has the current capacity, in terms of well production, to meet these demands on a daily basis. Table 4-2 of the UWMP summarizes the current system well capacity. The historical low capacity of 28,754 acre-feet per year exceeds the total city demand of 15,400 acre-feet per year in 2035. Therefore, there is current system pumping capacity.

4.7. Proposed Source of New Supply

As shown in Section 4.6 above, new sources of supply are not required to support the project. This is due largely to the following:

(1) As stated above, the city has taken measures to comply with the state-mandated "20 by 2020" water reduction program. The various water conservation measures taken by the city come into effect and are enforced during the building construction process. This is included in the projections made in this WSA.

(2) The pending completion of the State Department of Water Resources' (along with SGPWA) East Branch Expansion Phase II project, which will bring additional capacity for State Water Project water to the area. This capacity is included in the projections made in this WSA.

(3) The proposed use of recycled water for common area irrigation for the project. As shown above, the project will generate more effluent for generation of recycled water than can be utilized for irrigation on-site. The fact that potable water will not be used for common area irrigation is included in the projections made in this WSA, however the benefit provided due to the surplus recycled water, whether it is used elsewhere in the city, or by being recharged into the groundwater basin, is not included in the projections herein, and thereby adds a level of conservation to the supply calculations.

(4) Integrated Storm Water Quality provisions are proposed throughout the Rancho San Gorgonio master planned community. The primary concept is for all storm runoff to

be conveyed to a system of infiltration basins prior to discharge to the creek system. These infiltration basins not only capture storm runoff, but every day nuisance water as well, and in turn recharge the underlying groundwater basins. Per the project Preliminary (Storm) Water Quality Management Plan, the basin system has been designed for a WQ volume of 316,681 cubic feet, or 7.3 acre-feet, and over 90 acre-feet of retention capacity for the 100-year 3-hour storm

Even though new sources of water are not required for this project, there are additional opportunities to increase supply to the city's potable water system. Some of these sources are discussed below.

4.7.1. Recycled water "displacement" of potable use

Better utilization of recycled water for nonpotable water uses, such as irrigation, can effectively create additional sources of potable water by displacing (reducing) potable water demand. There are two general types of sources of recycled water potentially available to the City of Banning. The first type includes the city's plan to improve the existing WWTP to convert a portion of treated wastewater to recycled water. The second type is direct use of well water from underground sources not suitable for potable use, including portions of the Cabazon Basin such as Well R1, already impacted by the city's WWTP infiltration ponds, and other wells in the city not currently meeting potable drinking water standards. Using these sources for irrigation will free up potable water currently used for that purpose.

For example, city Well M12 currently exceeds the newly established Chromium-6 standards and if left untreated, will not be viable for potable water use. The city is designing a connection from M12 to the existing recycled water line. The recycled water line can already serve the Sun Lakes Golf Course. The golf course is currently supplied by potable sources for irrigation. The current irrigation demand of Sun Lakes is about 1100 ac-ft/year. If recycled or other sources replace this demand, the city's supply would increase.

4.7.2. Interagency connections

Another source of recycled water is from BCVWD to the west. BCVWD operates a recycled water line in Highland Springs Road at Sun Lakes Boulevard. A short gap of approximately three-quarters of a mile exists between the city's recycled water line and BCVWD's.

Connections already exist between the city potable water system and BCVWD's potable water system at Oak Valley Parkway and Highland Springs Road. This could leverage not only BCVWD's system, but also Yucaipa Valley Water District's (YVWD) system, as BCVWD and

YVWD are working on an agreement for YVWD to provide BCVWD with recycled water, thereby freeing up more potable water supply by displacing current nonpotable uses.

4.8. Permits Required for New Supply

As shown in Section 4.6 above, new sources of supply are not required to support the project.

4.9. Estimate of the Cost and Schedule for New Supply

As shown in Section 4.6 above, new sources of supply are not required to support the project.

4.10. Proposed Project Water System

A system of water main pipelines will be installed throughout the project, with larger lines serving as the backbone infrastructure, which in turn will serve smaller local waterlines distributed throughout the various planning areas.

There will be at a minimum two points of connection to the existing city water system. It is anticipated that the project will connect to the city's "Main" pressure zone in Sunset or Westward, at the westerly or northwesterly portion of the project. A second main connection will likely be on San Gorgonio Avenue, which is in the city's "Lower" pressure zone. It is anticipated that a pressure reducing valve will be required with at least the connection to the "Main" pressure zone in order to safely and efficiently serve the project. At this time, this new zone is titled "Intermediate Pressure Zone".

The project "Master Plan of Water" report estimates the size of the various pipelines, and assesses the need for emergency storage and fire suppression capacities.

An independent recycled water system is a proposed alternative to traditional irrigation from potable water sources for this master planned community. See Section 5 for a description of the recycled water system.

4.11. Summary

Based on current city supply and demand, the additional demand anticipated by this project will not impact the city's current, projected water supply, as demonstrated in Table 4-15 above. In an extremely conservative analysis, there may be a minor short fall in projected water supply for a particularly dry year (see Table 4-13 above, years 2030-2035), and for only a specific 5 to 10 year period. As demonstrated in Table 4-14 above, the city is projected to have a significant amount of water available in storage, confirming that even in a very conservative analysis, there will be a large surplus of potable water. And as set forth in Table 4-11, with project demand based on water conservation measures, with recycled water for common area irrigation, and with additional recharge of captured stormwater, the city will have an increase in net water balance of 16 acre-feet per year in year 2035 (a maximum increase of 75 acre-feet is estimated for 2025 due to the project being built faster than city growth was anticipated to occur in the UWMP).

The conservative analysis in the WSA assumes a higher per capita water use than has actually occurred on average in the city for the past 15 years.

The conservative analysis in the WSA does not allow for building codes which will require new homes to be constructed with water-saving fixtures and appliances, and that outdoor irrigation standards currently in effect and anticipated to be in effect for this project, will further reduce water usage.

The conservative analysis in the WSA does not allow for homes which will utilize less area for private landscaping than would be allowed per current city zoning. This will result in less demand for irrigation water.

The conservative analysis in the WSA does not allow for the use of storm water quality BMPs to retain storm runoff from both small and large storms, increasing surface water recharge of the underlying aquifers. For normal rainfall years, this can amount to 199 acre-feet per year, replenishing water storage at a potential rate of about 8% of conservative demand.

The conservative analysis in the WSA does not allow for the use of recycled water to irrigate common area landscaping, including street parkways and medians, parks and trails.

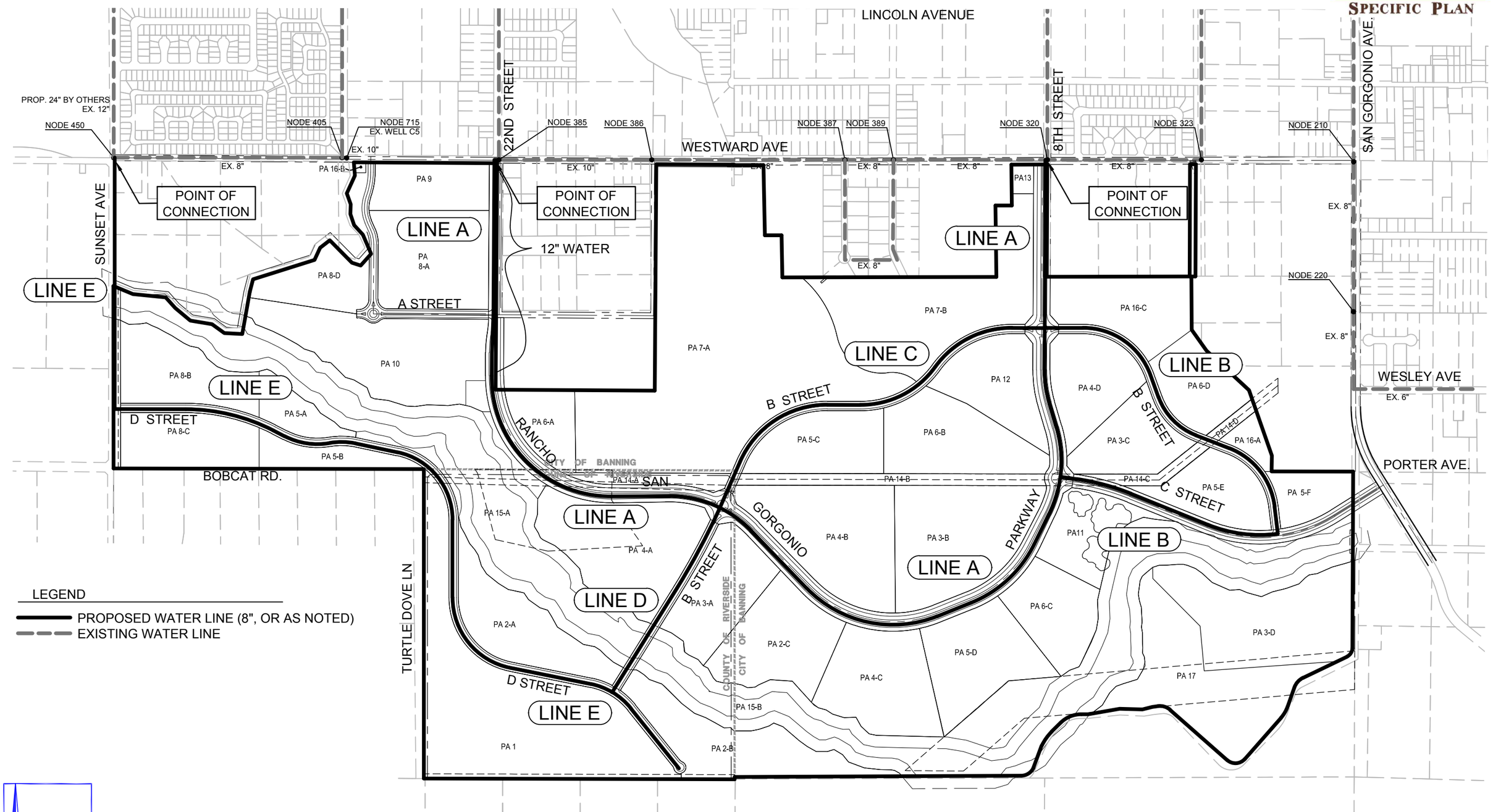
The procedures required to estimate the impact a new project will have on city water use go beyond quantifying the additional amount of water used in the new homes. The UWMP uses an estimated per capita water demand that is based on actual total city water usage, including water used to irrigate parks, street medians and parkways, water used in businesses, schools and city buildings. The total water needed for the city, not just from residences, is included in the per capita demand estimates.

New development places increased demands on city services, requiring more police and fire and similar personnel, and ultimately supporting more commercial and retail businesses. Additionally, with new development, more infrastructure, such as parks and streets, are

required. Therefore, the conservative analysis in the WSA extends the current condition and current demand rates; the total amount of water used in the city, divided by the population, results in a city-wide per person demand. This calculation is higher than just water use from residences. Applying this same methodology to Rancho San Gorgonio results in a substantial overage of the water demand projection, as this project will not irrigate common areas with potable water. As shown in the next section, the offset of recycled water for this project is estimated to be 218 acre-feet/year, which essentially amounts to an 8% reduction in potable water demand.

Therefore, even with the potential need to draw a small amount of water from the basin storage account for a particularly dry year sometime in the future, that would only occur if water usage within the project significantly exceeds what is expected. It is thus demonstrated with this WSA that the City of Banning's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the city's existing and planned future uses, including agricultural and manufacturing uses.

In regards to the current drought conditions, the Governor's Executive Order requires the city to reduce per capita water use by 32%, not total water use by 32%. A new project like Rancho San Gorgonio makes achieving a lower per capita water use level much more attainable, as outlined above. So while actual water use will increase, it will increase at a lower rate per person, thereby helping the city as a whole use less water per capita.



Encompass Associates, Inc.

Conceptual Potable Water Master Plan

EXHIBIT 4.9

5. Recycled Water System

5.1. Introduction

The Rancho San Gorgonio project is proposing to utilize recycled water for all common area irrigation demands. This includes median and parkway landscape areas along the major streets within the project, as well as at the various public parks and paseos throughout the master planned community. Landscaping on private property at residences will be irrigated with domestic, potable water.

A recycled water system would reduce the amount of potable water required to serve the proposed project, while at the same time reducing the impact to the existing sewer system and waste water treatment facility. There would be an added expense due to the additional facilities required to support a recycled water system.

5.2. Proposed (City) Recycled Water System

At present, the city is in the process of establishing a centralized recycled water system. Termed Segment A, pipelines have been installed in future Westward Avenue (unimproved portions) from Highland Home Road at Sun Lakes Boulevard to Sunset Avenue, then north on Sunset Avenue to Lincoln Street, and in Lincoln Street to 22nd Street. Segment B is planned to continue in Lincoln Street to San Gorgonio Avenue, and Segment C will continue in Lincoln Avenue easterly to Hathaway Street, south in Hathaway Street to Charles Street, and in Charles Street easterly to the WWTP. Expansion of the WWTP to generate recycled water has been approved and funded, with construction ready to commence, but work has not yet begun.

City of Banning
Recycled Water Master Plan

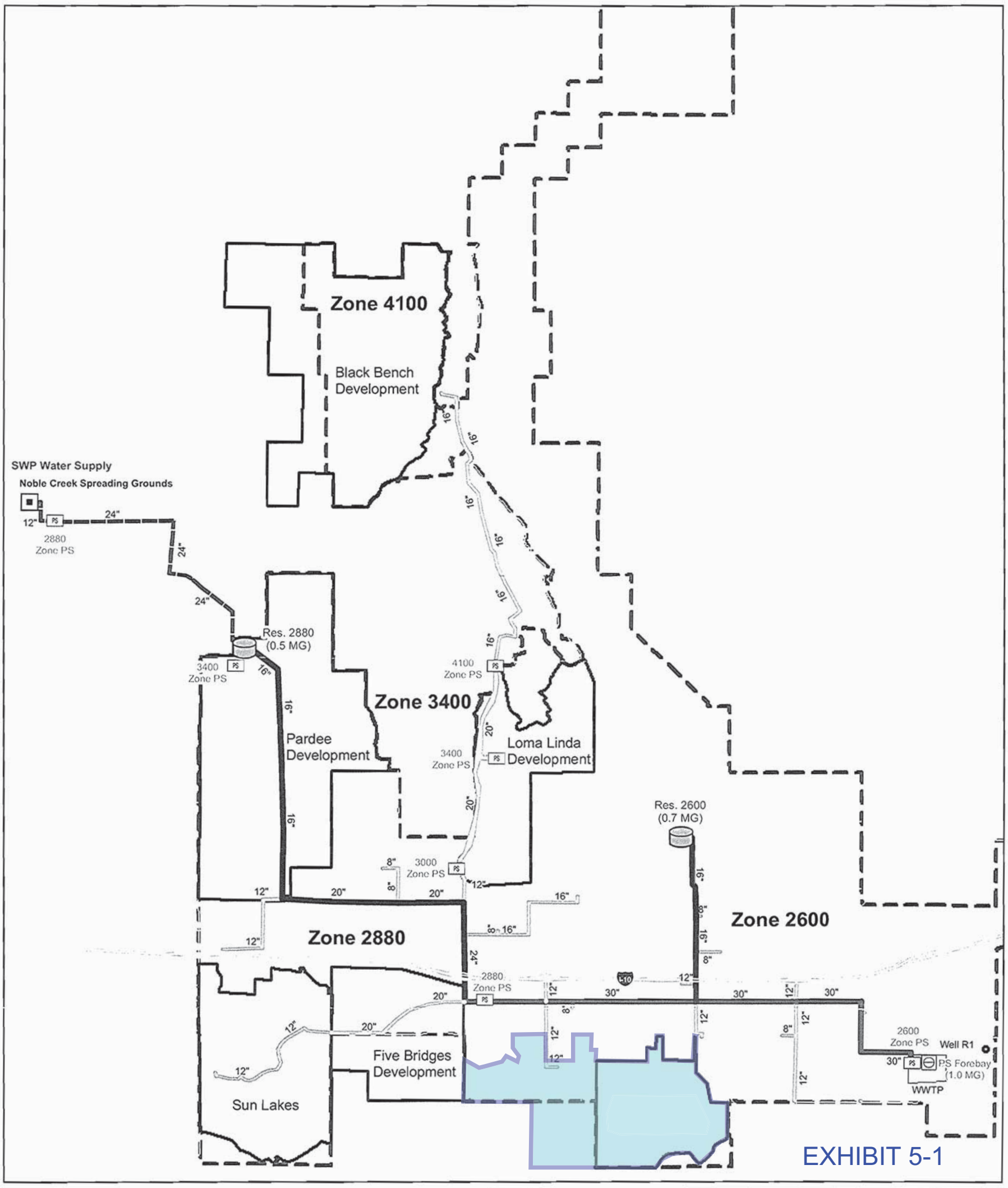


Figure 6.3 - Proposed Recycled Water System

Pipelines
Type
- State Water Project Pipeline
- Reservoir Feedlines
- Lincoln Street Backbone
- Distribution System Pipelines
- Existing Pipe

Pressure Zones
Zone
- 4100
- 3400
- 2880
- 2600

- Gravity Reservoirs
- Noble Creek SG
- Pump Stations
- PS Forebay
- Well R1
- I-10
- Streets
- Banning WWTP
- City Boundary

N

Feet: 0, 1,650, 3,300, 6,600

Note:
1. This map contains data from the City of Banning GIS.
2. This map is intended for display and planning purposes only.

carollo engineers

5.3. Recycled Water Delivery Options

A possible option is for a satellite package waste water treatment plant to be constructed, either somewhere within the limits of the community, such as PA 16-A, or at a strategic location nearby. Anticipated end-users of recycled water within the city are golf courses, schools, parks and Caltrans.

More likely, a connection would be made to the pipeline the city is currently constructing. The recycled water would be produced at the upgraded city WWTP. Connections could be made at Westward and Sunset Avenues, or up to Lincoln Avenue via 8th or 22nd Streets.

Regardless of the ultimate source of recycled water, a system of pipelines will be required throughout the project. See Exhibit 5-2 for the proposed location of the on-site recycled water system, as well as the location of the points of connection anticipated at this time.

5.4. Projected Collection of Sewage available for Recycled Water

Based on figures outlined in the city's Sewer Master Plan (2006), the project is estimated to generate 0.839 MGD of sewage, or a peak amount of 1.4 MGD.

Table 5.4-3: Estimated Increase In Required Sewer Capacity

Land Use	Factor	Unit	Existing "Build-out" DU	MGD	Proposed DU or AC	MGD
Residential	194	Gal/Capita/Day	1399	0.271406	3385	0.65669
Commercial	1500	Gal/Acre/Day				
Industrial	1000	Gal/Acre/Day				
Airport	250	Gal/Acre/Day				
Public Park	182448	Gal/day based on Fixture Units			1	0.18245
Prison (Rehab. Center)	2000	Gal/Acre/Day				
		Total Average Flow		0.271406		0.83914
		Total Peak Flow*		0.46139		1.42653
		Increase			0.96514	

Note: Park area includes PA 10, PA 11 and 12 only.
*Peaking factor is from 2006 SSS (see Section 3.1 of the MPS for the formula, dry weather)

5.5. Estimated amount of Recycled Water available for Landscape Irrigation

Per Section 5.4 above, the project could provide 0.839 MGD of sewage for treatment and conversion to recycled water. A membrane bioreactor (MBR) wastewater treatment plant is proposed and discussed in detail in the project Master Plan of Sewer (MPS). With a conservative yield of 50%, the plant could generate at least 470 acre-feet per year (50% of 0.839 MGD converted to acre-feet per year) of recycled water for common area landscape irrigation use.

As the peak demand for irrigation does not generally coincide with the peak generation of sewage, storage capacity would be required to accommodate peak irrigation needs. Alternatives to storage would be to supplement with domestic water as needed, tie into an off-site source of recycled water, or tie into an off-site sewerline to draw wastewater as needed.

5.6. Estimated demand for Recycled Water

Based on preliminary calculations in the project Master Plan of Water, there are approximately 78 acres of common area landscaping for which recycled water is anticipated to be utilized for irrigation. Those areas include street parkways and medians, Paseos and creek setback areas, and significant portions of the large proposed parks. There will be a mix of turf and drought-tolerant landscaping watered with recycled water. Per the MPW, an average demand of 194,356 gallons per day is estimated, or 218 acre-feet per year.

5.7. Projected Reduction in Potable Water Demand

A detailed study would be required to determine if all of the available wastewater could be used for irrigation purposes, depending on how the recycled water system is configured ultimately. It is assumed herein that all of the wastewater generated could be recycled into water for irrigation use (with a yield of 50%), therefore there would be a reduction of 470 acre-feet year in potable water demand for the city, and approximately 218 acre-feet year from the project, at build-out.

RANCHO SAN GORGONIO
SPECIFIC PLAN

LINCOLN AVENUE
22ND STREET
8TH STREET
SAN GORGONIO AVE.
WESTWARD AVE
SUNSET AVE
WESLEY AVE
PORTER AVE.
SUNSET-ST
D STREET
BOBCAT RD.
A STREET
B STREET
C STREET
RANCHO SAN GORGONIO
GORGONIO
PARKWAY
TURTLE DOVE LN
D STREET
C-ST

RSG-ST-1
RSG-ST-2-A
RSG-ST-2-B
RSG-ST-2-C
RSG-ST-2-D
RSG-ST-3
A-ST
B-ST-1
B-ST-2
B-ST-3
D-ST-N
D-ST-S

PA 16-B
PA 9
PA 8-A
PA 8-D
PA 10
PA 8-B
PA 8-C
PA 5-A
PA 5-B
PA 6-A
PA 7-A
PA 7-B
PA13
PA 12
PA 4-D
PA 6-D
PA 5-C
PA 6-B
PA 3-C
PA 14-D
PA 16-A
PA 14-A
PA 14-B
PA 14-C
PA 5-E
PA 5-F
PA 15-A
PA 4-A
PA 4-B
PA 3-B
PA11
PA 3-A
PA 2-A
PA 2-C
PA 6-C
PA 5-D
PA 3-D
PA 4-C
PA 17
PA 15-B
PA 1
PA 2-B

CITY OF BANNING
COUNTY OF RIVERSIDE

LEGEND

- PROPOSED 8" RECYCLED WATER LINE
- EXISTING RECYCLED WATER LINE
- D-ST-S NODE/AREA
- "WETLAND" Irrigation Hydrozone
- LOW Irrigation Hydrozone
- MODERATE Irrigation Hydrozone
- HIGH Irrigation Hydrozone
- No Irrigation (including Paseos and Creek Setbacks)
- Irrigation per Potable Water System

0' 800' 1600'

Encompass Associates, Inc.

Conceptual Recycled Water Master Plan

EXHIBIT 5-2

6. References

California Code of Regulations. California Water Code Division 6, Part 2.6. Urban Water Management Planning. 2010.

Carollo Engineers. City of Banning Recycled Water Master Plan Study, Final. September 2006.

Geoscience Support Services, Inc. City of Banning 2010 Urban Water Management Plan. July 22, 2011.

Geoscience Support Services, Inc. Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units, and Available Water Supply from the Beaumont Basin, Prepared for: City of Banning. March 29, 2011.

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RBF Consulting, Inc., & Brownstein Hyatt Farber Schreck. Water Supply Assessment for Butterfield Specific Plan. December 2011.

ALDA, Inc., and Thomas Harder & Co. Beaumont Basin Watermaster Draft Annual Report for Calendar Year 2013. August 2014.

Thomas Harder & Co. and ALDA, Inc. Beaumont Basin Watermaster Draft – Final 2013 Reevaluation of the Beaumont Basin Safe Yield. January 2015.

City Of Banning
Year End Water Production Report 2010

Prepared by
Pat Logan

Acre Feet				Average Percent		
Beaumont Basin				**Beaumont Basin**		
Well #	Acre Ft This Year	Acre Ft Last Year		Well	% This Year	% Last Year
C2	26.76	119.81		C2	0.32	1.37
C3	843.04	739.29		C3	10.08	8.47
C4	51.35	470.18		C4	0.61	5.39
M3	80.01	293.70		M3	0.96	3.36
Total	1001.16	1,622.98		Total	11.97	18.59
West Banning Basin				**West Banning Basin**		
C5	617.20	828.48		C5	7.38	9.49
M7	221.95	211.23		M7	2.65	2.42
M10	1.49	59.49		M10	0.02	0.68
M11	474.91	573.19		M11	5.68	6.57
M12	123.92	344.91		M12	1.48	3.95
Total	1,439.47	2,017.30		Total	17.21	23.11
East Banning Basin				**East Banning Basin**		
C6	564.61	982.05		C6	6.75	11.25
R1	0.00	0.00		R1	0.00	0.00
Total	564.61	982.05		Total	6.75	11.25
Banning Bench				**Banning Bench**		
1 E.	617.93	521.43		1 E.	7.39	5.97
2	0.00	46.31		2	0.00	0.53
3 E.	854.22	773.06		3 E.	10.21	8.86
Total	1,472.15	1,340.80		Total	17.60	15.36
Banning Water Canyon				**Banning Water Canyon**		
4P.	756.35	0.00		4	9.04	0.00
5P	0.00	0.00		5	0.00	0.00
7	2458.60	2,232.85		7	29.39	25.58
8	0.00	1.96		8	0.00	0.02
9	0.00	0.00		9	0.00	0.00
10	672.60	532.12		10	8.04	6.10
11	0.00	0.00		11	0.00	0.00
12	0.00	0.00		12	0.00	0.00
Total	3,887.54	2,766.93		Total	37.43	31.69
Received				**Received**		
BCVWD	148.41	1318.36		BCVWD @ S L Blvd	1.74	0.00
Total	148.41	1318.36		Total	1.74	0.00
Supplied				**Supplied**		
High Valley	82.20	88.86		High Valley	0.98	1.02
Sun Lakes Irrigation	789.01	0.00		Sun Lakes Irrigation	9.43	0.00
Total	871.21	88.86		Total	10.42	1.02
Lost						
4W	5.64	4.45		**Lost**		
Other	27.52	7.61		4W	0.07	0.05
Total	33.16	12.06		Other	0.33	0.09
Total Acre Feet	66.32	24.12		Total	0.40	0.14

City Of Banning
Year End Water Production Report 2011
Prepared by
Pat Logan

Acre Feet				Average Percent		
Beaumont Basin				**Beaumont Basin**		
Well #	Acre Ft This Year	Acre Ft Last Year		Well	% This Year	% Last Year
C2	32.50	26.76		C2	0.38	0.32
C3	776.62	843.04		C3	9.19	10.08
C4	197.46	51.35		C4	2.34	0.61
M3	335.06	80.01		M3	3.96	0.96
Total	1341.64	1,001.16		Total	15.87	11.97
West Banning Basin				**West Banning Basin**		
	873.58	617.20		C5	10.33	7.38
M7	140.76	221.95		M7	1.67	2.65
M10	1.69	1.49		M10	0.02	0.02
M11	376.17	474.91		M11	4.45	5.68
M12	93.78	123.92		M12	1.11	1.48
Total	1,485.97	1,439.47		Total	17.58	17.21
East Banning Basin				**East Banning Basin**		
C6	499.18	564.61		C6	5.90	6.75
R1	0.00	0.00		R1	0.00	0.00
Total	499.18	564.61		Total	5.90	6.75
Banning Bench				**Banning Bench**		
1 E.	1035.51	617.93		1 E.	12.25	7.39
2	0.00	0.00		2	0.00	0.00
3 E.	283.59	854.22		3 E.	3.35	10.21
Total	1,319.10	1,472.15		Total	15.60	17.60
Banning Water Canyon				**Banning Water Canyon**		
4P.	992.40	756.35		4	11.74	9.04
5P	0.00	0.00		5	0.00	0.00
7	2592.32	2,458.60		7	30.66	29.39
8	2.24	0.00		8	0.03	0.00
9	0.00	0.00		9	0.00	0.00
10	221.13	672.60		10	2.62	8.04
11	0.00	0.00		11	0.00	0.00
12	0.00	0.00		12	0.00	0.00
Total	3,808.09	3,887.54		Total	33.31	37.43
Received				**Received**		
BCVWD	0.00	0.00		BCVWD @ S L Blvd	0.00	0.00
Total	0.00	0.00		Total	0.00	0.00
Supplied				**Supplied**		
High Valley	76.10	82.20		High Valley	0.90	0.98
Sun Lakes Irrigation	813.01	0.00		Sun Lakes Irrigation	9.62	0.00
Total	889.11	82.20		Total	10.52	0.98
Lost						
4W	8.10	5.64		**Lost**		
Other	31.47	117.27		4W	0.10	0.07
Total	39.58	122.91		Other	0.37	1.40
Total Acre Feet	79.15	245.82		Total	0.47	1.47

City Of Banning
Year End Water Production Report 2012

Prepared by
Pat Logan

Acre Feet				Average Percent		
Beaumont Basin				**Beaumont Basin**		
Well #	Acre Ft This Year	Acre Ft Last Year		Well	% This Year	% Last Year
C2	13.09	32.50		C2	0.15	0.38
C3	565.69	776.62		C3	6.60	9.19
C4	83.51	197.46		C4	0.97	2.34
M3	387.38	335.06		M3	4.52	3.96
Total	1049.67	1,341.64		Total	12.24	15.87
West Banning Basin				**West Banning Basin**		
C5	634.80	873.58		C5	7.40	10.33
M7	120.52	140.76		M7	1.41	1.67
M10	4.06	1.69		M10	0.05	0.02
M11	436.05	376.17		M11	5.09	4.45
M12	184.65	93.78		M12	2.15	1.11
Total	1,380.09	1,485.97		Total	16.09	17.58
East Banning Basin				**East Banning Basin**		
C6	455.26	499.18		C6	5.31	5.90
R1	0.00	0.00		R1	0.00	0.00
Total	455.26	499.18		Total	5.31	5.90
Banning Bench				**Banning Bench**		
1 E.	1109.13	1035.51		1 E.	12.93	12.25
2	0.00	0.00		2	0.00	0.00
3 E.	534.61	283.59		3 E.	6.23	3.35
Total	1,643.74	1,319.10		Total	19.17	15.60
Banning Water Canyon				**Banning Water Canyon**		
4P.	732.42	992.40		4	8.54	11.74
5P	0.00	0.00		5	0.00	0.00
7	2402.33	2,592.32		7	28.01	30.66
8	0.00	2.24		8	0.00	0.03
9	0.00	0.00		9	0.00	0.00
10	911.54	221.13		10	10.63	2.62
11	0.05	0.00		11	0.00	0.00
12	0.07	0.00		12	0.00	0.00
Total	4,046.41	3,808.09		Total	38.65	33.31
Received				**Received**		
BCVWD	0.00	0.00		BCVWD @ S L Blvd	0.00	0.00
Total	0.00	0.00		Total	0.00	0.00
Supplied				**Supplied**		
High Valley	78.11	76.10		High Valley	0.91	0.90
Sun Lakes Irrigation	836.53	0.00		Sun Lakes Irrigation	9.76	0.00
Total	914.63	76.10		Total	10.67	0.90
Lost						
4W	1.42	8.10		**Lost**		
Other	36.66	31.47		4W	0.02	0.10
Total	38.08	39.58		Other	0.43	0.37
Total Acre Feet	76.16	79.15		Total	0.44	0.47

City Of Banning
Year End Water Production Report 2013
Prepared by
Pat Logan

Acre Feet				Average Percent		
Beaumont Basin				**Beaumont Basin**		
Well #	Acre Ft This Year	Acre Ft Last Year		Well	% This Year	% Last Year
C2	111.49	13.09		C2	1.28	0.15
C3	583.62	565.69		C3	6.68	6.60
C4	881.77	83.51		C4	10.09	0.97
M3	500.03	387.38		M3	5.72	4.52
Total	2076.92	1,049.67		Total	23.76	12.24
West Banning Basin				**West Banning Basin**		
C5	758.63	634.80		C5	8.68	7.40
M7	58.72	120.52		M7	0.67	1.41
M10	260.75	4.06		M10	2.98	0.05
M11	467.65	436.05		M11	5.35	5.09
M12	260.40	184.65		M12	2.98	2.15
Total	1,806.15	1,380.09		Total	20.66	16.09
East Banning Basin				**East Banning Basin**		
C6	11.33	455.26		C6	0.13	5.31
R1	0.00	0.00		R1	0.00	0.00
Total	11.33	455.26		Total	0.13	5.31
Banning Bench				**Banning Bench**		
1 E.	983.07	1109.13		1 E.	11.24	12.93
2	0.00	0.00		2	0.00	0.00
3 P.	718.28	534.61		3 P.	8.22	6.23
Total	1,701.35	1,643.74		Total	19.46	19.17
Banning Water Canyon				**Banning Water Canyon**		
4P.	349.63	732.42		4	4.00	8.54
5P	0.00	0.00		5	0.00	0.00
7	2048.61	2,402.33		7	23.43	28.01
8	0.00	0.00		8	0.00	0.00
9	0.00	0.00		9	0.00	0.00
10	748.98	911.54		10	8.57	10.63
11	0.00	0.05		11	0.00	0.00
12	0.00	0.07		12	0.00	0.00
Total	3,147.21	4,046.41		Total	32.00	38.65
Received				**Received**		
BCVWD	0.00	0.00		BCVWD @ S L Blvd	0.00	0.00
Total	0.00	0.00		Total	0.00	0.00
Supplied				**Supplied**		
High Valley	83.91	78.11		High Valley	0.96	0.91
Sun Lakes Irrigation	832.48	836.53		Sun Lakes Irrigation	9.52	0.00
Total	916.39	914.63		Total	10.48	0.91
Lost						
4W	7.21	1.42		**Lost**		
Other	39.99	36.66		4W	0.08	0.02
Total	47.19	38.08		Other	0.46	0.43
Total Acre Feet	94.39	76.16		Total	0.54	0.44

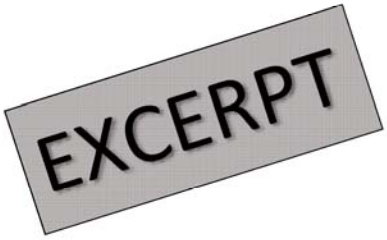
City Of Banning
Year End Water Production Report 2014
Prepared by
Mike Lynch

Acre Feet				Average Percent		
Beaumont Basin				**Beaumont Basin**		
Well #	Acre Ft This Year	Acre Ft Last Year		Well	% This Year	% Last Year
C2	533.62	111.49		C2	6.30	1.28
C3	527.07	583.62		C3	6.22	6.68
C4	856.88	881.77		C4	10.12	10.09
M3	670.01	500.03		M3	7.91	5.72
Total	2587.58	2,076.92		Total	30.56	23.76
West Banning Basin				**West Banning Basin**		
C5	580.91	758.63		C5	6.86	8.68
M7	141.36	58.72		M7	1.67	0.67
M10	301.37	260.75		M10	3.56	2.98
M11	342.82	467.65		M11	4.05	5.35
M12	168.30	260.40		M12	1.99	2.98
Total	1,534.77	1,806.15		Total	18.13	20.66
East Banning Basin				**East Banning Basin**		
C6	786.71	11.33		C6	9.29	0.13
R1	0.00	0.00		R1	0.00	0.00
Total	786.71	11.33		Total	9.29	0.13
Banning Bench				**Banning Bench**		
1 E.	987.67	983.07		1 E.	11.66	11.24
2	0.00	0.00		2	0.00	0.00
3 P.	13.09	718.28		3 P.	0.15	8.22
Total	1,000.76	1,701.35		Total	11.82	19.46
Banning Water Canyon				**Banning Water Canyon**		
4P.	0.00	349.63		4	0.00	4.00
5P	0.00	0.00		5	0.00	0.00
7	1781.74	2,048.61		7	21.04	23.43
8	0.00	0.00		8	0.00	0.00
9	0.00	0.00		9	0.00	0.00
10	776.06	748.98		10	9.17	8.57
11	0.00	0.00		11	0.00	0.00
12	0.00	0.00		12	0.00	0.00
Total	2,557.80	3,147.21		Total	30.21	32.00
Received				**Received**		
BCVWD	0.00	0.00		BCVWD @ S L Blvd	0.00	0.00
Total	0.00	0.00		Total	0.00	0.00
Supplied				**Supplied**		
High Valley	69.44	83.91		High Valley	0.82	0.96
Sun Lakes Irrigation	881.05	832.48		Sun Lakes Irrigation	10.40	0.00
Total	950.49	916.39		Total	11.22	0.96
Lost						
4W	0.00	7.21		**Lost**		
Other	33.68	39.99		4W	0.00	0.08
Total	33.68	47.19		Other	0.40	0.46
Total Acre Feet	67.36	94.39		Total	0.40	0.54

Beaumont Basin Watermaster

2014 Annual Report

DRAFT



2014 Watermaster Board

Duane Burk, City of Banning, **Chairman**
George Jorritsma, South Mesa Water Company, **Vice Chairman**
Eric Fraser, Beaumont Cherry Valley Water District, **Secretary**
Joseph Zoba, Yucaipa Valley Water District, **Treasurer**
David Dillon, City of Beaumont

Alvarado Smith, **Legal Counsel**
ALDA Inc. in Association with Thomas Harder & Company, **Engineering**
Rogers, Anderson, Malody, and Scott. LLP, **Financial Auditors**

June 2015

Table 3-6
Summary of Unused Overlying Water - Calendar Year Accounting (ac-ft)

Watermaster Accounting Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Annual Overlying Water Right	4,325.0	8,650.0	8,650.0	8,650.0	8,650.0	8,650.0	8,650.0	8,650.0	8,650.0	8,650.0	8,650.0	8,650.0
Annual Overlying Production	2,440.8	3,576.3	3,292.6	3,596.7	3,306.5	2,871.6	2,838.2	2,285.3	2,280.2	2,394.3	2,310.3	1,922.0
Annual Deliveries by Appropriators			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unused Overlying Water Right	**1,884.2**	**5,073.7**	**5,357.4**	**5,053.3**	**5,343.5**	**5,778.4**	**5,811.8**	**6,364.7**	**6,369.8**	**6,255.7**	**6,339.7**	**6,728.0**

Table 3-7
Allocation of Unused Overlying Water -- Calendar Year Accounting (ac-ft)

Appropriator Party	Share of Safe Yield	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Banning, City of	31.43%	592.2	1,594.7	1,683.8	1,588.2	1,679.5	1,816.1	1,826.7	2,000.4	2,002.0	1,966.2	1,992.6	2,114.6
Beaumont, City of	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beaumont Cherry Valley WD	42.51%	801.0	2,156.8	2,277.4	2,148.1	2,271.5	2,456.4	2,470.6	2,705.6	2,707.8	2,659.3	2,695.0	2,860.1
South Mesa Water Company	12.48%	235.2	633.2	668.6	630.6	666.9	721.1	725.3	794.3	795.0	780.7	791.2	839.7
Yucaipa Valley WD	13.58%	255.9	689.0	727.5	686.2	725.6	784.7	789.2	864.3	865.0	849.5	860.9	913.7
Total	**100.00%**	**1,884.2**	**5,073.7**	**5,357.4**	**5,053.3**	**5,343.5**	**5,778.4**	**5,811.8**	**6,364.7**	**6,369.8**	**6,255.7**	**6,339.7**	**6,728.0**

Table 3-8
Consolidation of Appropriator Production and Storage Accounts
Calendar Year Accounting (ac-ft) 2003 through 2014

Calendar Year	Storage Account Balance at Beginning of CY	Share of Surplus Water	Groundwater Production for CY	Additions to Storage Account								Ending Account Balance
				Under Production [1]	Overlying Users Parcel Conversion	Unused Overlying Production Allocation	Transfers Among Appropriators	Supplemental Water		Local Recharge	Total Additions to Storage Account	
								SWP Water Recharge	Recycled Water Recharge			
City of Banning - Authorized Storage Account: 80,000 ac-ft												
2003	0.0	2,514.5	2,174.2	340.3	0.0	0.0	0.0	0.0	0.0	0.0	340.3	340.3
2004	340.3	5,029.0	3,397.3	1,631.7	0.0	0.0	0.0	0.0	0.0	0.0	1,631.7	1,972.0
2005	1,972.0	5,029.0	1,808.6	3,220.4	0.0	0.0	0.0	0.0	0.0	0.0	3,220.4	5,192.5
2006	5,192.5	5,029.0	1,827.5	3,201.5	0.0	0.0	0.0	0.0	0.0	0.0	3,201.5	8,393.9
2007	8,393.9	5,029.0	2,772.6	2,256.4	0.0	0.0	1,500.0	0.0	0.0	0.0	3,756.4	12,150.3
2008	12,150.3	5,029.0	2,933.6	2,095.4	0.0	592.2	0.0	1,534.0	0.0	0.0	4,221.6	16,371.9
2009	16,371.9	5,029.0	2,095.0	2,934.0	0.0	1,594.7	0.0	2,741.2	0.0	0.0	7,269.8	23,641.8
2010	23,641.8	5,029.0	1,143.6	3,885.4	0.0	1,683.8	0.0	1,338.0	0.0	0.0	6,907.2	30,549.0
2011	30,549.0	5,029.0	1,341.7	3,687.3	0.0	1,588.2	0.0	800.0	0.0	0.0	6,075.6	36,624.5
2012	36,624.5	5,029.0	1,038.3	3,990.7	0.0	1,679.5	0.0	1,200.0	0.0	0.0	6,870.2	43,494.7
2013	43,494.7	2,514.5	2,100.7	413.8	0.0	1,816.1	0.0	1,200.0	0.0	0.0	3,430.0	46,924.7
2014	46,924.7	0.0	2,585.1	-2,585.1	0.0	1,826.7	0.0	608.0	0.0	0.0	-150.4	46,774.3
Beaumont Cherry Valley Water District - Authorized Storage Account: 80,000 ac-ft												
2003	0.0	3,401.0	3,511.9	-110.9	0.0	0.0	0.0	0.0	0.0	0.0	-110.9	-110.9
2004	-110.9	6,802.0	6,873.9	-71.9	0.0	0.0	0.0	0.0	0.0	0.0	-71.9	-182.8
2005	-182.8	6,802.0	7,025.6	-223.6	0.0	0.0	0.0	0.0	0.0	0.0	-223.6	-406.4
2006	-406.4	6,802.0	9,054.1	-2,252.1	0.0	0.0	0.0	3,501.0	0.0	0.0	1,248.9	842.5
2007	842.5	6,802.0	11,383.3	-4,581.3	0.0	0.0	1,500.0	4,501.0	0.0	0.0	1,419.7	2,262.2
2008	2,262.2	6,802.0	10,710.5	-3,908.5	0.0	801.0	2,500.0	2,399.0	0.0	0.0	1,791.5	4,053.7
2009	4,053.7	6,802.0	10,133.9	-3,331.9	0.0	2,156.8	2,000.0	2,741.2	0.0	0.0	3,566.1	7,619.8
2010	7,619.8	6,802.0	9,421.3	-2,619.3	0.0	2,277.4	0.0	5,727.0	0.0	0.0	5,385.1	13,004.9
2011	13,004.9	6,802.0	9,431.3	-2,629.3	0.0	2,148.1	3,500.0	7,979.0	0.0	0.0	10,997.8	24,002.8
2012	24,002.8	6,802.0	10,162.0	-3,360.0	0.0	2,271.5	0.0	7,783.0	0.0	0.0	6,694.5	30,697.3
2013	30,697.3	3,401.0	11,097.4	-7,696.4	0.0	2,456.4	0.0	7,403.0	0.0	0.0	2,163.0	32,860.3
2014	32,860.3	0.0	10,805.5	-10,805.5	0.0	2,470.6	0.0	4,405.0	0.0	0.0	-3,929.9	28,930.4
City of Beaumont - Authorized Storage Account: 30,000 ac-ft												
2003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2004	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2005	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2006	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

JOSEPH S. AKLUFI (Bar No. 68619)
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Attorneys for Plaintiff, SAN TIMOTEO WATERSHED MANAGEMENT AUTHORITY

NO FILING FEE REQUIRED PER GOVERNMENT CODE, SEC. 6103

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

STIPULATION FOR ENTRY OF JUDGMENT ADJUDICATING GROUNDWATER RIGHTS IN THE BEAUMONT BASIN

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. STIPULATING PARTIES IDENTIFIED

The following parties, and each of them, agree to the terms of this Stipulation:

Plaintiff:

SAN TIMOTEO WATERSHED MANAGEMENT AUTHORITY

Overlying Defendants:

1. SHARONDALE MESA OWNERS ASSOCIATION, an unincorporated association
2. CALIFORNIA OAK VALLEY GOLF AND RESORT LLC, a California limited liability company
3. OAK VALLEY PARTNERS LP, a Texas limited partnership
4. SOUTHERN CALIFORNIA SECTION OF THE PROFESSIONAL GOLFERS ASSOCIATION OF AMERICA, a California corporation
5. SUNNY-CAL EGG AND POULTRY COMPANY, a California corporation
6. MANHEIM, MANHEIM & BERMAN, a California general partnership
7. WALTER M. BECKMAN, individually, and as Trustee of the BECKMAN FAMILY TRUST dated December 11, 1990
8. THE ROMAN CATHOLIC BISHOP of San Bernardino, a California corporation
9. MERLIN PROPERTIES, LLC
10. LEONARD M. STEARNS and DOROTHY D. STEARNS, individually and as Trustees of the LEONARD M. STEARNS FAMILY TRUST OF 1991
11. PLANTATION ON THE LAKE LLC, a California limited liability company

Appropriating Defendants:

1. CITY OF BANNING, a municipal corporation
2. BEAUMONT-CHERRY VALLEY WATER DISTRICT, an irrigation district
3. SOUTH MESA MUTUAL WATER COMPANY, a mutual water company
4. YUCAIPA VALLEY WATER DISTRICT, a county water district

///

AKLUFI AND WYSOCKI
3403 TENTH ST, SUITE 610
RIVERSIDE, CALIFORNIA 92501
(909) 682-5480

II. RECITALS

WHEREAS, plaintiff is a joint powers public agency, formed in 2001 for the purpose, among others, of preparing and implementing a Water Resources Management Plan for the San Timoteo Watershed and the waters tributary thereto, including the Beaumont Basin, in order to conserve local water supplies, improve surface and subsurface water quality and quantity, and to protect and enhance groundwater storage, for the benefit of the public;

WHEREAS, the Beaumont Basin, also known as the Beaumont Storage Unit, is the common source of water supply for appropriative water uses within the communities of Banning, Beaumont, Cherry Valley and Calimesa, and for various overlying uses including, but not limited to, golf courses and related facilities and agricultural production, including egg production and related agricultural irrigation uses;

WHEREAS, the maximum quantity of water which can be produced from the Beaumont Basin, at safe yield, is currently estimated to be 8650 acre feet per year, and the total groundwater production from the Beaumont Basin has exceeded and continues to exceed its safe yield;

WHEREAS, much of the land area within and adjacent to the Beaumont Basin is proposed to be intensively developed with residential, commercial and industrial uses, which will place additional demands on local water resources;

WHEREAS, it is estimated that the Beaumont Basin has the capability of storing more than 200,000 acre feet of water for overlying and appropriative use by water users within and

RIVERSIDE, C. ORNIA 92501
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adjacent to the Beaumont Basin;

WHEREAS, the plaintiff proposes to invest substantial public funds to construct facilities that will enable the storage of water within the Beaumont Basin, in addition to the storage that occurs naturally;

WHEREAS, the Overlying and Appropriating Defendants wish to secure the provision and availability of a reliable, affordable, long-term water supply for the area within plaintiff's jurisdiction, making reasonable and beneficial use of the native groundwater in the Beaumont Basin, and other local water resources, promoting the importation of water into the area, and storage of such water, and local surface waters, in the Beaumont Basin;

WHEREAS, the Overlying Defendants believe that it is in their best interest to enter into this Stipulation and be subject to the attached Judgment, rather than continue to litigate the safe yield of the Beaumont Basin, the quantity of their overlying rights, both historical and unexercised, the rights they may have to use the storage volume existing beneath their respective lands, and other issues;

WHEREAS, in order to protect existing overlying and appropriative uses and to justify and protect the public investment necessary to utilize the available groundwater storage capacity in the Beaumont Basin, it is necessary to adjudicate the Beaumont Basin and to define the respective water rights of the overlying and appropriative producers of groundwater.

NOW, THEREFORE, the undersigned parties, and each of them, hereby agree to the following Stipulated Terms.

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RIVERSIDE, CALIFORNIA 92501
(909) 682-5480

III. STIPULATED TERMS

1. Form of Judgment: Judgment may be filed and entered in the form attached hereto as Exhibit "1" and made a part hereof.

2. Fees and Costs: Each party shall bear its own costs, attorneys fees and litigation expenses arising out of this adjudication.

3. Waiver: Notice of entry of judgment, the right to trial, stay of execution and appeal, is hereby waived, except as expressly set forth in the Judgment.

4. Binding Effect: This Stipulation and all obligations herein, shall be binding on and shall inure to the benefit of the heirs, executors, administrators, successors and assigns of the parties hereto.

5. Construction and Interpretation: No adverse construction or interpretation of this Stipulation shall be made under the Civil Code simply because the parties drafted or participated in the drafting of this Stipulation. The terms of the Judgment shall be interpreted to further the purposes of this Stipulation.

6. Jurisdiction and Venue: The Superior Court of California in and for the County of Riverside shall have jurisdiction of this matter. In the event of any litigation arising out of this Stipulation, venue shall conclusively be deemed to lie in the County of Riverside.

7. Advice of Counsel: The undersigned each have had the opportunity to consult with or have consulted with their own legal counsel regarding this Stipulation and all matters set forth herein, or have knowingly waived the right to do so.

K F N O
3403 TENTH ST, SUITE 610
RIVERSIDE, CALIFORNIA 92501
(909) 682-5480

8. Authority: Each person executing this Stipulation on behalf of any of the undersigned has been fully empowered to execute this Stipulation and that all necessary action for the execution of this Stipulation has been taken.

IT IS SO STIPULATED:

SAN TIMOTEO WATERSHED MANAGEMENT AUTHORITY

Dated: 1/6/04

By _____
President, Board of Directors

CITY OF BANNING

Dated: 12/23/03

By _____
Mayor

BEAUMONT-CHERRY VALLEY WATER DISTRICT

Dated: _____

By _____
President, Board of Directors

YUCAIPA VALLEY WATER DISTRICT

Dated: _____

By _____
President, Board of Directors

PLANTATION ON THE LAKE LLC

Dated: _____

By _____
President, Board of Directors

SHARONDALE MESA OWNERS ASSOCIATION

Dated: _____

By _____
President, Board of Directors

ARLUFI AND WYSOCKI
3403 TEN REET, SUITE 610
RIVERSIDE, LIFORNIA 92501
(909) 682-5480

8. Authority: Each person executing this Stipulation on behalf of any of the undersigned has been fully empowered to execute this Stipulation and that all necessary action for the execution of this Stipulation has been taken.

IT IS SO STIPULATED:

SAN TIMOTEO WATERSHED MANAGEMENT AUTHORITY

Dated: _____ By _____
President, Board of Directors

CITY OF BANNING

Dated: _____ By _____
Mayor

BEAUMONT-CHERRY VALLEY WATER DISTRICT

Dated: July 3, 2003 By _____
President, Board of Directors

YUCAIPA VALLEY WATER DISTRICT

Dated: _____ By _____
President, Board of Directors

PLANTATION ON THE LAKE LLC

Dated: _____ By _____
President, Board of Directors

SHARONDALE MESA OWNERS ASSOCIATION

Dated: _____ By _____
President, Board of Directors

RIVERSIDE, FORNIA 92501
(909) 682-5480

8. Authority: Each person executing this Stipulation on behalf of any of the undersigned has been fully empowered to execute this Stipulation and that all necessary action for the execution of this Stipulation has been taken.

IT IS SO STIPULATED:

SAN TIMOTEO WATERSHED MANAGEMENT AUTHORITY

Dated: _____ By _____
President, Board of Directors

CITY OF BANNING

Dated: _____ By _____
Mayor

BEAUMONT-CHERRY VALLEY WATER DISTRICT

Dated: _____ By _____
President, Board of Directors

YUCAIPA VALLEY WATER DISTRICT

Dated: 10/1/03 By _____
President, Board of Directors

PLANTATION ON THE LAKE LLC

Dated: _____ By _____
President, Board of Directors

SHARONDALE MESA OWNERS ASSOCIATION

Dated: _____ By _____
President, Board of Directors

AKLUFI AND WYSOCKI
3403 TENTH ST, SUITE 610
RIVERSIDE, CALIFORNIA 92501
(909) 682-5480

8. Authority: Each person executing this Stipulation on behalf of any of the undersigned has been fully empowered to execute this Stipulation and that all necessary action for the execution of this Stipulation has been taken.

IT IS SO STIPULATED:

SAN TIMOTEO WATERSHED MANAGEMENT AUTHORITY

Dated: _____ By _____
President, Board of Directors

CITY OF BANNING

Dated: _____ By _____
Mayor

BEAUMONT-CHERRY VALLEY WATER DISTRICT

Dated: _____ By _____
President, Board of Directors

YUCAIPA VALLEY WATER DISTRICT

Dated: _____ By _____
President, Board of Directors

PLANTATION ON THE LAKE LLC

Dated: 7/30/03 By James H Krueger
~~President, Board of Directors~~
Manager of Meadows Management Company LLC, Manager

SHARONDALE MESA OWNERS ASSOCIATION

Dated: _____ By _____
President, Board of Directors

RIVERSIDE, C. ORNIA 92501
(909) 682-5480

8. Authority: Each person executing this Stipulation on behalf of any of the undersigned has been fully empowered to execute this Stipulation and that all necessary action for the execution of this Stipulation has been taken.

IT IS SO STIPULATED:

SAN TIMOTEO WATERSHED MANAGEMENT AUTHORITY

Dated: _____ By _____
President, Board of Directors

CITY OF BANNING

Dated: _____ By _____
Mayor

BEAUMONT-CHERRY VALLEY WATER DISTRICT

Dated: _____ By _____
President, Board of Directors

YUCAIPA VALLEY WATER DISTRICT

Dated: _____ By _____
President, Board of Directors

PLANTATION ON THE LAKE LLC

Dated: _____ By _____
President, Board of Directors

SHARONDALE MESA OWNERS ASSOCIATION

Dated: June 27, 2003 By Lenardo Alexander
President, Board of Directors

ARLUFI AND WYSOCKI
3403 TENTH ST, SUITE 610
RIVERSIDE, CALIFORNIA 92501
(909) 682-5480

SOUTH MESA MUTUAL WATER COMPANY

Dated: 6-27-03

By _____
President, Board of Directors

CALIFORNIA OAK VALLEY GOLF AND RESORT LLC

Dated: _____

By _____
President, Board of Directors

OAK VALLEY PARTNERS LP,
A Texas Limited Partnership

By: Oak Valley-Hunt, Inc.
a Texas Corporation
Managing General Partner

Dated: _____

By _____
D. CRAIG MARTIN

Its: President

SOUTHERN CALIFORNIA SECTION OF THE PROFESSIONAL GOLFERS ASSOCIATION OF AMERICA

Dated: _____

By _____
President, Board of Directors

SUNNY-CAL EGG AND POULTRY COMPANY

Dated: _____

By _____
President, Board of Directors

MANHEIM, MANHEIM & BERMAN

Dated: _____

By _____

RIVERSIDE, CALIFORNIA 92501
(909) 682-5480

SOUTH MESA MUTUAL WATER COMPANY

Dated: _____

By _____
President, Board of Directors

CALIFORNIA OAK VALLEY GOLF AND RESORT LLC

Dated: 7-31-2003

By _____
President, Board of Directors

OAK VALLEY PARTNERS LP,
A Texas Limited Partnership

By: Oak Valley-Hunt, Inc.
a Texas Corporation
Managing General Partner

Dated: _____

By _____
D. CRAIG MARTIN

Its: President

SOUTHERN CALIFORNIA SECTION OF THE PROFESSIONAL GOLFERS ASSOCIATION OF AMERICA

Dated: _____

By _____
President, Board of Directors

SUNNY-CAL EGG AND POULTRY COMPANY

Dated: _____

By _____
President, Board of Directors

MANHEIM, MANHEIM & BERMAN

Dated: _____

By _____

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3403 TENTH ...FT, SUITE 610
RIVERSIDE, C... ORNIA 92501
(909) 682-5480

SOUTH MESA MUTUAL WATER COMPANY

Dated: _____ By _____
President, Board of Directors

CALIFORNIA OAK VALLEY GOLF AND RESORT LLC

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President, Board of Directors

OAK VALLEY PARTNERS LP,
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a Texas Corporation
Managing General Partner

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President, Board of Directors

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Dated: _____ By _____

RIVERSIDE, CALIFORNIA 92501
(909) 682-5480

SOUTH MESA MUTUAL WATER COMPANY

Dated: _____

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President, Board of Directors

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Dated: _____

By _____
President, Board of Directors

OAK VALLEY PARTNERS LP,
A Texas Limited Partnership

By: Oak Valley-Hunt, Inc.
a Texas Corporation
Managing General Partner

Dated: _____

By _____
D. CRAIG MARTIN

Its: President

SOUTHERN CALIFORNIA SECTION OF THE PROFESSIONAL GOLFERS ASSOCIATION OF AMERICA

Dated: July 8, 2003

By Thomas C. Gustafson
~~President, Board of Directors~~
CHIEF Executive Officer

SUNNY-CAL EGG AND POULTRY COMPANY

Dated: _____

By _____
President, Board of Directors

MANHEIM, MANHEIM & BERMAN

Dated: _____

By _____

3403 TENTH STREET, SUITE 610
RIVERSIDE, CALIFORNIA 92501
(909) 782-5480

SOUTH MESA MUTUAL WATER COMPANY

Dated: _____

By _____
President, Board of Directors

CALIFORNIA OAK VALLEY GOLF AND RESORT LLC

Dated: _____

By _____
President, Board of Directors

OAK VALLEY PARTNERS LP,
A Texas Limited Partnership

By: Oak Valley-Hunt, Inc.
a Texas Corporation
Managing General Partner

Dated: _____

By _____
D. CRAIG MARTIN

Its: President

SOUTHERN CALIFORNIA SECTION OF THE PROFESSIONAL GOLFERS ASSOCIATION OF AMERICA

Dated: _____

By _____
President, Board of Directors

SUNNY-CAL EGG AND POULTRY COMPANY

Dated: _____

By Michael Marboim
President, Board of Directors

MANHEIM, MANHEIM & BERMAN

Dated: _____

By Dottie Berman

Dated: 7-23-03

Walter M. Beckman
WALTER M. BECKMAN

Dated: 7-23-03

Walter M. Beckman
WALTER M. BECKMAN, Trustee of the BECKMAN FAMILY TRUST dated December 11, 1990

Dated: _____

_____
CECIL MERLE MURRAY

MERLIN PROPERTIES, LLC

Dated: _____

By _____

Dated: _____

_____
LEONARD M. STEARNS, individually and as Trustee of the LEONARD M. STEARNS FAMILY TRUST OF 1991

Dated: _____

_____
DOROTHY D. STEARNS, individually and as Trustee of the LEONARD M. STEARNS FAMILY TRUST OF 1991

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RIVERSIDE, CA 92501
(909) 682-5480

APPROVAL AND ORDER

The foregoing Stipulation is hereby approved and is so ordered.

Dated: _____

_____
JUDGE OF THE SUPERIOR COURT

Dated: _____

WALTER M. BECKMAN

Dated: _____

WALTER M. BECKMAN, Trustee of the BECKMAN FAMILY TRUST dated December 11, 1990

THE ROMAN CATHOLIC BISHOP of San Bernardino, a California corporation

Dated: 9/18/03

By Msgr. Gerald M. Fogg

MERLIN PROPERTIES, LLC

Dated: _____

By _____

Dated: _____

LEONARD M. STEARNS, individually and as Trustee of the LEONARD M. STEARNS FAMILY TRUST OF 1991

Dated: _____

DOROTHY D. STEARNS, individually and as Trustee of the LEONARD M. STEARNS FAMILY TRUST OF 1991

APPROVAL AND ORDER

The foregoing Stipulation is hereby approved and is so ordered.

Dated: _____

_____

JUDGE OF THE SUPERIOR COURT

RIVERSIDE, CALIFORNIA 92501
(909) 682-5480

Dated: _____

WALTER M. BECKMAN

Dated: _____

WALTER M. BECKMAN, Trustee of the BECKMAN FAMILY TRUST dated December 11, 1990

THE ROMAN CATHOLIC BISHOP of San Bernardino, a California corporation

Dated: _____ By _____

MERLIN PROPERTIES, LLC

Dated: July 31, 2003 By Paul L Rushmer

Dated: _____

LEONARD M. STEARNS, individually and as Trustee of the LEONARD M. STEARNS FAMILY TRUST OF 1991

Dated: _____

DOROTHY D. STEARNS, individually and as Trustee of the LEONARD M. STEARNS FAMILY TRUST OF 1991

APPROVAL AND ORDER

The foregoing Stipulation is hereby approved and is so ordered.

Dated: _____

JUDGE OF THE SUPERIOR COURT

3403 TENTH STREET, SUITE 610
RIVERSIDE, CALIFORNIA 92501
(909) 6[illegible]-5480

Dated: _____

WALTER M. BECKMAN

Dated: _____

WALTER M. BECKMAN, Trustee of the BECKMAN FAMILY TRUST dated December 11, 1990

Dated: _____

CECIL MERLE MURRAY

MERLIN PROPERTIES, LLC

Dated: _____ By _____

Dated: 7-23-03

Leonard M. Stearns

LEONARD M. STEARNS, individually and as Trustee of the LEONARD M. STEARNS FAMILY TRUST OF 1991

Dated: 7-23-03

Dorothy D. Stearns

DOROTHY D. STEARNS, individually and as Trustee of the LEONARD M. STEARNS FAMILY TRUST OF 1991

APPROVAL AND ORDER

The foregoing Stipulation is hereby approved and is so ordered.

Dated: FEB - 4 2004

GARY TRANBARGER

JUDGE OF THE SUPERIOR COURT

JOSEPH S. AKLUFI (Bar No. 68619)
AKLUFI AND WYSOCKI
3403 Tenth Street, Suite 610
Riverside, California 92501
(909)682-5480 Office
(909)682-2619 Fax

Attorneys for Plaintiff, SAN TIMOTEO WATERSHED MANAGEMENT AUTHORITY

NO FILING FEE REQUIRED PER GOVERNMENT CODE, SEC. 6103

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

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 8610 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

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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RIVERSIDE, CALIFORNIA 92501
(909) 682-3480

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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(909) 682-5480

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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(909) 682-5480

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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RIVERSIDE, CALIFORNIA 92501
(909) 682-5480

(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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(909) 682-5480

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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