APPENDIX 5.14

DRAFT

WATER SUPPLY ASSESSMENT AND VERIFICATION for the EAST GATEWAY PROJECT

July 2012

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EXECUTIVE SUMMARY

The purpose of this water supply assessment (WSA) and verification is to document the sufficiency of the local water supply to meet the demand associated with the land uses that would be permitted by the proposed East Gateway Project. The City of Santa Paula is proposing to annex portions of the East Area 2 Planning Area as designated in the City's General Plan. The annexation project includes a series of related actions, including amendment of the General Plan Land Use Element and pre-zoning of the annexation area. In addition, adoption of the Santa Paula East Gateway Specific Plan is proposed for a portion of the annexation area and adjacent land already located within the City. These actions are collectively referred to as the East Gateway Project.

The East Gateway Project includes approximately 899,500 square feet of planned commercial and industrial buildout and approximately 10 single family dwelling units for the east side of the City of Santa Paula. In addition, Santa Paula Creek will be designated as open space – passive and the railroad will be designated as open space – parks and recreation. East Area 2 is identified as an urban expansion area in the City of Santa Paula General Plan. The City's General Plan requires the preparation and adoption of a Specific Plan for any identified expansion area prior to the City initiating annexation of the area to the City. Prior to considering the proposed Specific Plan for approval, the City is required to comply with the California Environmental Quality Act (CEQA). The City is currently preparing an Environmental Impact Report (EIR) to comply with CEQA.

The California Water Code (Sections 10910 through 10915) requires the preparation of a WSA by the public water system supplier that would provide water to the proposed project for all projects as defined in Section 10912 of the Water Code. This includes any mixed-use project including more than 250,000 floor area of commercial space. The goal of a WSA is to provide information on the availability of water supplies to be included in EIRs.

The City of Santa Paula Public Works Department, Water Division, provides water service in the City of Santa Paula and would provide water service to the East Gateway Project after annexation of the site to the City. Currently the Santa Paula Groundwater Basin (Santa Paula Basin) is the City's sole source of water supply. Rights to withdraw groundwater from the Santa Paula Basin have been adjudicated, and the Santa Paula Basin is managed in accordance with this adjudication to ensure a safe groundwater yield. Recent demand for water for the existing agricultural uses on the East Gateway Specific Plan site has averaged approximately 608 acre-feet per year (afy). The existing uses within the annexation areas demand approximately 39 acre-feet.

The eastern boundary of the Santa Paula Basin also demarcates the western boundary of the Fillmore Groundwater Basin (Fillmore Basin), which is generally located to the northeast of the Santa Paula Basin and "upstream" in relation to the Santa Clara River, which flows across both basins.

The City is required under California Water Code (Sections 10610 to 10656) to assess citywide water supply and demand over the next 20 years in 5-year increments in its Urban Water Management Plan (UWMP). The City completed its most recent update in 2010. The 2010 UWMP accomplishes water planning, including recycled water, over a 20-year period in 5-year increments; identifies and quantifies adequate water supplies for existing and future water demands in normal, dry, and multiple dry years; identifies actions to prepare for and implement during a catastrophic interruption of water supplies; and implements conservation and efficient use of urban water supplies. No decrease in availability of groundwater supplies is anticipated through the year 2035.

Conservative assumptions concerning future water demand are used in this WSA. The City's 2010 UWMP provides per capita and specific use (commercial, industrial, and residential) demand rates for estimating future water demand. This WSA utilizes the commercial, industrial, and residential rates provided in the UWMP.

The City has constructed a new Water Recycling Facility (WRF). The City WRF will produce recycled water that meets California Title 22 regulations. The capacity of the City WRF is 4.2 million gallons per day (mgd), of which 1,622 AFY is anticipated to produce recycled water. Recycled water is anticipated to be available for irrigation of landscape areas in 2015.

In order to estimate water demand for the type and amount of land uses that would be permitted by the East Gateway Project, the water demand factors contained in the City's 2010 UWMP were used. Based on these factors, the annual average water demand for the East Gateway Project would be 38.5 afy.

The total demand would be lesser than the amount of water currently used for agricultural purposes, approximately 607 afy, and similar to existing water use for the project area.

The East Gateway Specific Plan does include a conceptual point of connection to the proposed 12-inch distribution main called for by the City's Recycled Water Plan and per the East Area 1 Specific Plan. This will allow the project to use recycled water when the City extends a recycled water line to the site and the plant is producing sufficient recycled water to supply the site. The project does not require or need recycled water to ensure an adequate supply.

In accordance with the City of Santa Paula Municipal Code, landowners or developers are required to either provide water rights sufficient to serve the property or pay an equivalent in-lieu fee as a condition of

project approval or when the property is annexed. Upon annexation, the applicants will transfer a portion of these rights in sufficient quantity to meet all of the anticipated water demands of the project.

In summary, this Water Supply Assessment for the East Gateway Project concludes that the City of Santa Paula's projected water supply for the next 20 years is adequate to meet the demand projected for the project, existing and planned future uses in the City in normal, single dry, and multiple dry years.

Finally, in accordance with Senate Bill (SB) 221, this report verifies that sufficient water supply will exist to meet the City of Santa Paula's total water requirements during normal, singe-dry, and multiple-dry years within a 20-year project that will meet the projected demand associated with the proposed East Gateway Project, in addition to existing and planned future use, including, but not limited to, agricultural and industrial uses.

1.0 INTRODUCTION

The purpose of this water assessment is to document the sufficiency of the local water supply to meet the demand associated with the proposed land uses of the East Area 2 Annexation Area and the East Gateway Specific Plan (East Gateway Project). In order to adequately address the sufficiency of water supply sources for future developments and in an attempt to prevent major development projects from being approved without a water supply evaluation, the State of California passed into law Senate Bills 221 (Subdivision Act, California Government Code Section 66437.7 et seq.) and 610 (California Water Code Section 10910 et seq.).

In October 2001, the Governor of the State of California signed into law Senate Bill (SB) 610, which requires preparation of a WSA as part of the environmental review process for new development projects. A project is defined in the California Water Code as:

- any proposed residential development having more than 500 dwelling units,
- a proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space,
- a proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space,
- a proposed hotel or motel, or both, having more than 500 rooms,
- a proposed industrial manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area,
- a mixed-use project that includes one or more of the projects specified above,
- a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project, or
- a public water system that has fewer than 5,000 connections with a proposed project that will account for a 10 percent or greater increase in the number of service connections.

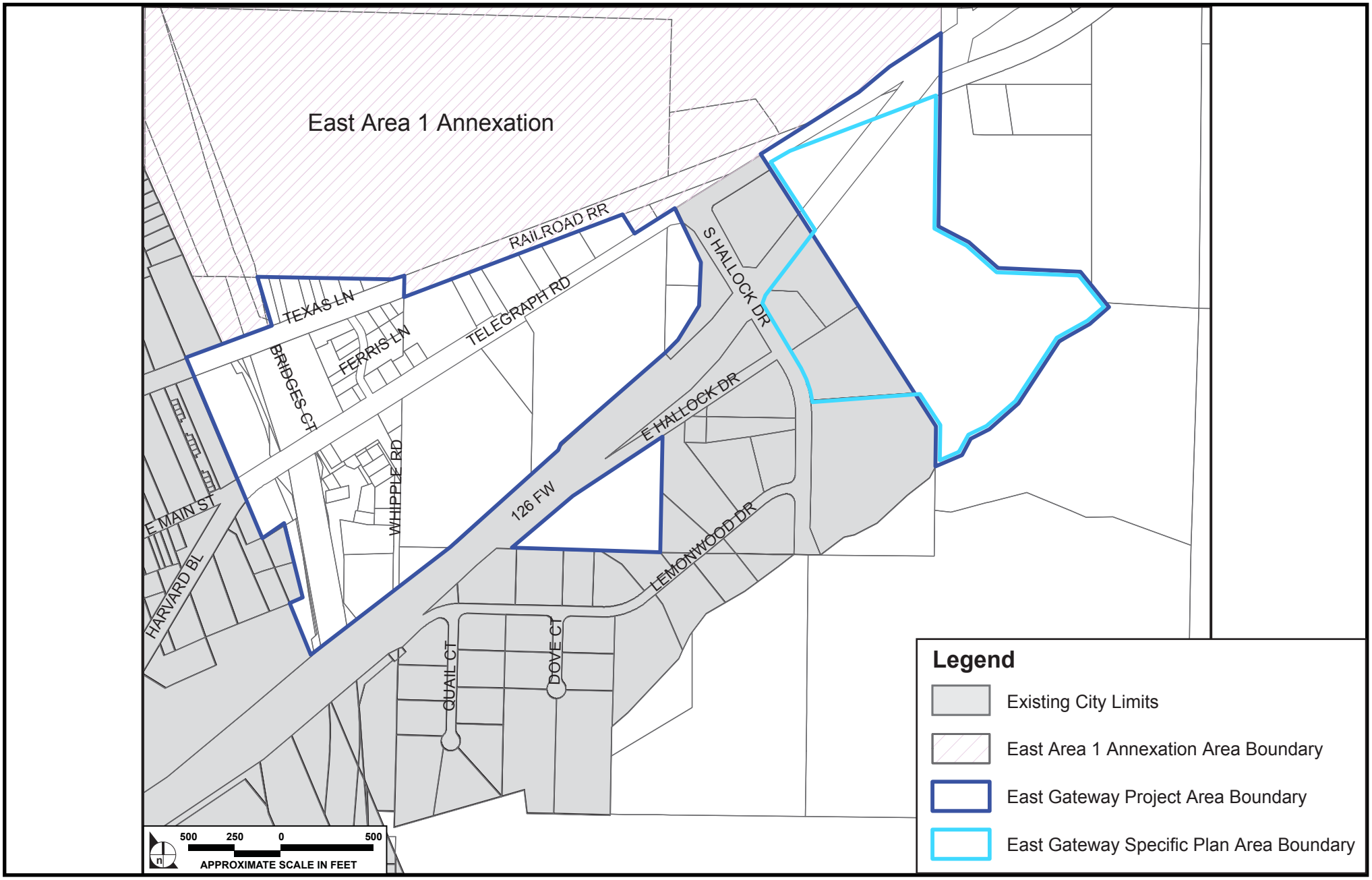
In addition to adopting SB 610 in October 2001, the Governor of the State of California signed into law SB 221 in the same year. This law requires a city, county, or local agency to condition, as part of the tentative map process, preparation of a WSA documenting the availability of a water supply to serve a subdivision. Although the standards for compliance with SB 221 are essentially identical to those identified above for SB 610, this law uses a different set of requirements to determine the sufficiency of a water supply.

SB 221 requires that the verification of a water supply take into consideration the following issues:

- water supply must be based on the historical record for at least 20 years;

- preparation of an urban water shortage contingency analysis;
- identify supply reduction for "specific water use sector" per water supplier's resolution, ordinance, or contract; and
- the amount of water that can be reasonably relied upon from specific projects is subject to the determinations of Government Code section 66473.7(d) et seq.

The East Gateway Project encompasses approximately 112 acres of land in unincorporated Ventura County east of the City of Santa Paula. The East Gateway Project would permit the development of up to 560,000 square feet of retail commercial uses, 283,500 square feet of light industrial uses, and 56,000 square feet of industrial uses. **Figure 1, East Gateway Project Area**, identifies the location of the project area. For purposes of the water supply assessment and consistent with SB 610, buildout projection for water supply are for 20 years to the year 2035.



SOURCE: Meridian Consultants, LLC - June 2012

FIGURE **1**

Meridian Consultants

East Gateway Project Area

007-002-12

2.0 STATE WATER CODE REPORT REQUIREMENTS

2.1 WATER SUPPLY ASSESSMENT

California Water Code (Section 10910 *et seq.*) requires the preparation of a WSA for all projects meeting the definition of a project as stated in the Water Code. The goal of a WSA is to identify available water supplies that may be used to meet water demand for a project and to determine the adequacy of those supplies during critical periods, such as a drought.

2.2 URBAN WATER MANAGEMENT PLAN

Section 10610 et seq. of the California Water Code, known as the Urban Water Management Planning Act, calls for creation and periodic update of Urban Water Management Plans (UWMP) by all urban water suppliers and sets forth the requirements for such plans, including definition of relevant terms.

Under the definition given in Section 10617, an urban water supplier is an entity "providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually." Water for this development will be supplied from the City of Santa Paula's existing water system which is supplied via groundwater wells throughout the City.

In 2011, the City of Santa Paula completed an UWMP[1] update that included the portions of the East Area 2 Annexation Area located east of the City, south of the Ventura County Transportation Commission railroad, surrounds Hallock Drive area, but excludes the triangle area north of Hallock Drive.[2] This UWMP did not discuss the specific development and activities contemplated by the East Gateway Project, although it did discuss, in general terms, the nature and extent of the long-term water supply for the City for the East Area and included an estimated 1,602,000 square feet of commercial/industrial/institutional uses on approximately 136 acres. Much of this general discussion is cited and paraphrased in this WSA. The UWMP contains an analysis of the factors required by Government Code section 66437.7 (a)(2), and such factors apply to this WSA.

Accordingly, this WSA, in concert with the UWMP prepared by the City, includes all necessary data and analyses required by California Water Code section 10910 et seq. and by Government Code section 66437.7 et seq.

The City of Santa Paula, 2010 Urban Water Management Plan, prepared by Milner-Villa Consulting, dated July 2011 is incorporated in total by reference in this WSA.

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1 City of Santa Paula, *2010 Urban Water Management Plan*, June 2011.

2 Ibid, General Plan, *Land Use Element*, (2011), LU-24.

3.0 WATER SUPPLY AND DISTRIBUTION

3.1 WATER SUPPLY

The City of Santa Paula currently has secured water rights from two sources: groundwater allocation from the Santa Paula Basin and a surface water wheeling agreement with the Canyon Irrigation Company. Surface water from Santa Paula Creek was a major source of potable water supply for the City's service area until wells were drilled into the Santa Paula Basin to augment the supply from Santa Paula Creek. Currently the Santa Paula Basin is the City's sole source of potable water supply.

The East Gateway Project area overlies the Santa Paula groundwater basin. Both the Department of Water Resources (DWR) and United Water Conservation District (UWCD) regularly report on the hydrogeologic conditions within the Santa Paula basin, and a summary of reported groundwater conditions is provided herein.

DWR's most recent publication discussing the basin is the 2003 edition of Bulletin 118.[3] Bulletin 118 describes the Santa Paula Basin as a subbasin of the larger Santa Clara River Valley Groundwater Basin, as shown in **Figure 2, Santa Paula Groundwater Basin Location Map**. Other subbasins within the Santa Clara River Valley Groundwater Basin include the Fillmore, Piru, Mound, and Oxnard Subbasins. Each of the five subbasins is an alluvial basin recharged, in part, by the Santa Clara River.[4] For the sake of simplicity, and because the subbasins are subject to varying forms of management, this WSA refers to the Santa Paula Basin as basin rather than subbasin.

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3 State of California, Resources Agency, Department of Water Resources, *California Groundwater*, Bulletin 118 Update 2003, October 2003.

4 Ibid.

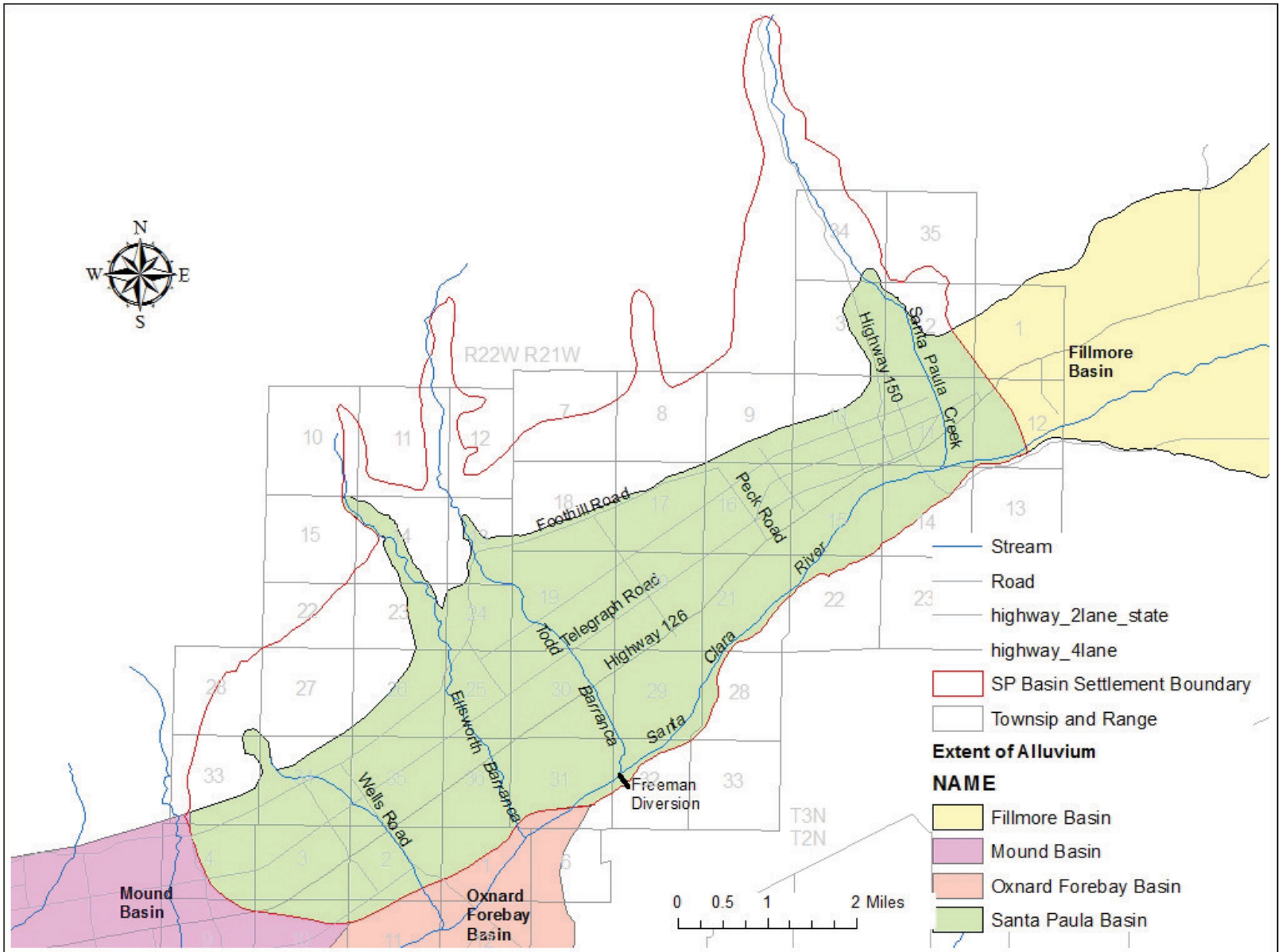

Figure 1. Santa Paula Basin Location Map

SOURCE: UWCD, 2009-2010 Santa Paula Basin Annual Report, October 2011

FIGURE **2**

Meridian Consultants

Santa Paula Groundwater Basins Location Map

007-002-12

3.1.1 Santa Paula Basin

The Santa Paula Basin underlies the City of Santa Paula and unincorporated areas to the southwest of the City within the Santa Clara River Valley. The basin is bounded by the impervious rocks of the Topatopa Mountains to the north, impervious rocks of Oak Ridge and South Mountain, the Oak Ridge fault, and Saticoy fault on the south.[5] The eastern edge of the basin is marked by a bedrock constriction, with the boundary placed at the position of maximum rising water.[6] The western boundary separates the Santa Paula basin from the Mound and Oxnard subbasins, with the western boundary placed where there is a distinct change in the slope of the water table.[7] Ground surface elevations range from 140 feet above sea level in the west to about 1,000 feet above sea level along the Santa Paula Creek drainage.[8] The Santa Clara River and Santa Paula Creek drain the valley westward toward the Pacific Ocean. Average annual precipitation ranges from 14 to 18 inches.[9]

The 2009 water year (October 1, 2008 to September 30, 2009) had a recorded precipitation of 11.67 inches, which was 5.79 inches below the average water year precipitation of 17.46 inches from 1890 to 2010.[10] The 2009 water year precipitation was 3.40 inches below the median water year precipitation of 15.07 inches from 1890 to 2010. The data indicates that 2009 was a dry precipitation year. The 2010 water year (October 1, 2009 to September 30, 2010) had a recorded precipitation of 19.33 inches, which was 1.87 inches above the average water year precipitation of 17.46 inches from 1890 to 2010. The 2010 water year precipitation was 4.26 inches above the median water year precipitation from 1890 to 2010. The data indicates that 2010 was a slightly above average precipitation year.

The basin is recharged by percolation of surface flow from the Santa Clara River, Santa Paula Creek, and other minor tributary streams, as well as subsurface flow from the Fillmore Basin.[11] Some of the surface flow in the Santa Clara River originates as release from Lake Piru and contains natural runoff of precipitation and imported State Water Project water.[12] Percolation of precipitation and unused irrigation

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5 State of California, Resources Agency, Department of Water Resources, *California Groundwater*, Bulletin 118 Update 2003, October 2003.

6 Ibid.

7 Ibid.

8 Ibid.

9 Ibid.

10 United Water Conservation District, Combined 2009 and 2010 Santa Paula Basin Annual Report, Professional Paper 2011-001, October 2011. p. 8.

11 Ibid.

12 Ibid, Surface and Groundwater Conditions report, Water Year 2000 Supplement.

waters provide additional recharge. Groundwater in the Santa Paula Basin generally flows toward the southwest.[13]

Disagreement over the issue of safe yield of groundwater between the UWCD and other parties using water from the Santa Paula Basin, including the City of Santa Paula and the City of San Buenaventura (Ventura), led to the adjudication of groundwater rights within the Santa Paula Basin in 1996. A stipulated judgment was agreed to by the parties, and after review and approval by the Ventura County Superior Court, was entered as a final judgment (Judgment) to adjudicate groundwater rights within the basin. In summary, the Judgment adjudicates groundwater rights, regulates individual and collective pumping, provides for basin management through a Technical Advisory Committee (TAC), and reserves jurisdiction in the Superior Court to resolve future disputes and provide for supplementary orders as necessary.

The Judgment allocates the use of groundwater in the Santa Paula Basin between the City of Ventura and the Santa Paula Basin Pumpers Association (SPBPA), which is a consortium of water users in the Santa Paula area, including the City and farming interests. UWCD is also a party to the Judgment. Although UWCD does not produce water from the Santa Paula Basin, the Basin is located within its boundaries and UWCD is authorized to engage in groundwater management and replenishment activities and to act to protect water supplies that are of common benefit to the lands and residents within UWCD.

Currently, the SPBPA possesses a collective groundwater right allocation of 27,515 AFY that it holds in trust for its membership. The Judgment further subdivides the collective 27,515 AFY allocation as sub-allocations to each of the SPBPA members and a few non-parties. The allocations and sub-allocations are summarized in **Table 1, Santa Paula Basin Water Allocations**.

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13 State of California, Resources Agency, Department of Water Resources, *California Groundwater*, Bulletin 118 Update 2003, October 2003.

Table 1
Santa Paula Basin Water Allocations

Water User	Allocation (AFY)[1]
Santa Paula Basin Pumpers Association	
City[2]	5,483
Canyon Irrigation Company	673
Farmers Irrigation Company	9,913
Limoneira	3,611
Alta Mutual Water Company	758
All Other SPBPA Users	7,077
Subtotal SPBPA	27,515
City of San Buenaventura	3,000
Unallocated Reserve	2,985

Source: City of Santa Paula, 2010 Urban Water Management Plan, prepared by Milner-Villa Consulting, July 2011, Table 4-1.
[1] *All values rounded to nearest acre-foot (AF).*
[2] *The City's current allocation is 5,483. State of California, Superior Court. 2010. Amended and Restated Judgment, United Water Conservation District vs. City of San Buenaventura.*

Pursuant to the terms of the Judgment, the City of Santa Paula has a sub-allocation of 5,483.3 AFY available for urban uses. However, the City transferred 673 AFY to Canyon Irrigation Company in January 1998. This amount could be adjusted if the terms of the Judgment are modified, or if the City acquires additional water rights from areas subject to development or from other users within the SPBPA.

The City of Ventura has an allocation to pump on average 3,000 AFY under a Class II Emergency. A long term drought situation affecting surface water supplies would be considered a Class II Emergency. In addition, the Judgment also provides for an unallocated reserve of 3,000 AFY.

Water on the project site used for irrigation has been historically supplied from on-site wells. All wells are listed in the Judgment as being within the Santa Paula Basin. Withdrawals from all of the wells have been accounted for under the Santa Paula Basin Judgment. Currently, the members of the SPBPA have a cumulative allocation to pump on average 27,515 AFY.[14]

The Judgment sets forth an "assumed initial yield" of the basin at 33,500 AFY, subject to modification if credible technical information demonstrates a need for a change.[15] The Judgment also set forth a seven-year study period to evaluate the appropriateness of the assumed initial basin yield of 33,500 AFY, which began on January 1, 1996. The average is a rolling average so in 2011 the average extraction

14 City of Santa Paula, *2010 Urban Water Management Plan*, prepared by Milner-Villa Consulting, July 2011, Appendix D, Exhibit C-1-b (July 2, 2010).

15 Ibid.

amount will be based on the period from 2005 to 2011. After the seven year study period, UWCD and the other member of the TAC collaborated to produce a study of the basin's groundwater conditions and the implications for the initial 33,500 afy yield allocation.[16]

The total combined pumping allocations of the SPBPA (party and non-party) and the City of San Buenaventura are now at 30,780.2 acre-feet.[17] Amendments to the Judgment in 2010 provided the SPBPA with an additional 280.2 acre-feet of allocation, which were granted to pumpers that were not previously parties to or identified within the Judgment. The new allocations were calculated and granted using the lesser of the following two options: 1) the average production reported to UWCD from 2002 through 2008; or 2) the average production reported to UWCD prior to the Judgment (1989 to 1995). Additionally, a total of 40.7 acre-feet of SPBPA's allocation is held in "reserve" by the SPBPA for non-party pumpers have declined to stipulate and become parties to the Judgment. In addition the City of Ventura has acquired 225.8 acre-feet of prior SPBPA allocation through water allocation transfers to the City.

The 2010 groundwater allocations under the Judgment are retroactive for the seven-year period from 2004 to 2010.[18] Thus, the SPBPA's 2010 allocation was 27,519.5 acre-feet of annual allocation (excluding non-parties) distributed among its members with a seven-year average surplus of 3,465.6 acre-feet from pumping below the allocation. The City of Ventura's 2010 allocation was 3,220 acre-feet of annual allocation with a seven-year average surplus of 1,739.9 acre-feet from pumping below its allocation.

The Judgment also allows for de minimis production by landowners that are not allocated an Individual Party Allocation, which allows these landowners to produce groundwater for uses on their overlying property so long as such use does not exceed 5 acre-feet in any particular year. As of 2010, there were six de minimis producers.

Groundwater elevations in many of the wells (43 of 57 wells) in both the eastern and western portions of the Santa Paula basin failed to fully recover to 1998 levels after near-record precipitation in 2005.[19] This observation is consistent with an observed long-term, gradual decline in basin groundwater elevations. The significance of the 2005 precipitation, however, needs further analysis as this is a single wet year that follows multiple dry years. Reported groundwater pumping from 1998 to 2005 averaged about 25,000 afy,

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16 Santa Paula Basins Expert Group, *Investigation of Santa Paula Basin Yield*, prepared for Santa Paula Basin Technical Advisory Committee, July 2003.

17 United Water Conservation District, Combined 2009 and 2010 Santa Paula Basin Annual Report, Professional Paper 2011-001, October 2011. p. 21.

18 Ibid.

19 Ibid, p. 3.

well under the basin pumping allocations of 30,739.5 afy. There was an approximate 38 percent greater amount of pumping in the first 6 months of 2005 (9,267 acre-feet) over the first 6 months of 1998 (6,724 acre-feet) which may have resulted in lowering water levels during the measurement period of high water level conditions (i.e., March 2005 through May 2005). The observed decline in groundwater levels is a matter of some concern, but the decline has not been abrupt and further monitoring and research is in process to determine the cause of the decline and the most appropriate and cost-effective remedial action should this trend continue without stabilizing. More in-depth monitoring and research is underway to correlate annual basin recharge, discharge, and water level changes used to understand and determine the basin status.

UWCD has historical groundwater elevation data for 75 wells, 64 are currently being monitored for groundwater levels.[20] The other wells either have been destroyed or are no longer being monitored. Recorded groundwater level highs in 2009 and 2010 are below the recorded groundwater level highs seen in 1998. From 1998 to 2009, 47 wells show groundwater level declines, one well shows a groundwater level rise, one well shows no change in groundwater level and 26 wells have no groundwater level measurements in 1998 or 2009. From 1998 to 2010, 49 wells show groundwater level declines, one well shows a groundwater level rise, two wells show no change in groundwater levels and 23 wells have no groundwater level measurements in 1998 or 2010.

Since 1998, the basin has experienced only two significant wet years that were during 2001 at 26.54 inches of precipitation and 2005 at 40.54 inches of precipitation.[21] The next highest precipitation years were in 2003 at 19.94 inches and 2010 at 19.33 inches. The groundwater level declines in the basin since 1998 are in response to this relatively dry period. If the basin is operating within a yield, groundwater levels should recover to 1998 levels or at least to 2005 levels with the onset of a wet period.

The estimated subsurface outflow was reported by DWR in Bulletin 118 to be 7,200 AFY. Average annual extraction was estimated to be 21,612 AFY in Bulletin 118.[22] The Yield Study found that an average annual pumping rate of approximately 26,000 AFY for the period from 1983 through 1995 was sustainable.[23] Furthermore, it is the opinion of the Santa Paula TAC that the yield of the basin is greater than the average annual production of 26,000 acre-feet. The Yield Study also reported fluctuations in

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20 United Water Conservation District, Combined 2009 and 2010 Santa Paula Basin Annual Report, Professional Paper 2011-001, October 2011, pp. 21 to 22.

21 Ibid. pp. 22 to 23.

22 State of California, Resources Agency, Department of Water Resources, *California Groundwater*, Bulletin 118 Update 2003, October 2003.

23 Santa Paula Basins Expert Group, *Investigation of Santa Paula Basin Yield*, prepared for Santa Paula Basin Technical Advisory Committee, July 2003.

groundwater levels that correlated with precipitation trends.[24] However, the Yield Study also concluded that long-term observations suggested that the Basin was not in a state of overdraft.[25]

The Yield Study was submitted to the Superior Court by the TAC along with the 2002 Annual Report on the Basin.[26] Based on the study results, the, TAC recommended to the Court that the yield remain at 33,500 afy.

Water Code section 10631 requires that this WSA (a) identify whether the DWR has determined, in the most recent official department bulletin, whether the Santa Paula Basin is presently in a state of overdraft or at risk of becoming overdrafted under current conditions; and (b) provide an analysis of the sufficiency of the Basin's groundwater supply to meet the projected water demands of the East Gateway Project. DWR's most recent assessment of conditions in the Santa Paula Basin was issued as part of DWR's Bulletin 118, Update 2003, which does not state that any portion of the Santa Paula Basin is presently, or was previously, in a state of overdraft.[27] Bulletin 118 does, however, report as follows:

> *Hydrographs from the Santa Paula Subbasin show a range of up to 55 feet in water level elevation since 1975. The hydrographs show an annual cyclic rise and fall of water level of about 20 feet with longer-term variations apparently following precipitation cycles. The subbasin was at a low level in 1991 and 1992, then recovered by 1994 and has remained stable since then.*

A basin yield study by experts for the City of Ventura, SPBPA, and UWCD suggests that the safe yield of the basin is probably near the historic pumping amount.[28]

The 2009-2010 Annual Report for the Santa Basin concluded that: "…the majority of the wells in the Santa Paula Basin have experienced a gradual groundwater level decline during the 1998 to 2005 observation period and the 2005 to present (2010) observation period."[29] UWCD concluded that; "The water level fluctuations observed fro, 1995 to 2009 in the Santa Paula Basin cannot be attributed solely to spatial or temporal variations in pumping."[30]

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24 Santa Paula Basins Expert Group, *Investigation of Santa Paula Basin Yield*, prepared for Santa Paula Basin Technical Advisory Committee, July 2003.

25 Ibid.

26 United Water Conservation District, *Santa Paula Basin 2002 Annual Report*, October 2003.

27 State of California, Resources Agency, Department of Water Resources, *California Groundwater*, Bulletin 118 Update 2003, October 2003.

28 Santa Paula Basins Expert Group, *Investigation of Santa Paula Basin Yield*, prepared for Santa Paula Basin Technical Advisory Committee, July 2003.

29 Santa Paula Basin Technical Advisory Committee, 2009-2010 Annual Report for the Santa Basin, Professional Paper 2011-001, October 2011.

30 United Water Conservation District, Santa Paula Basin umping Trends Effects and Assessments, Open File Report 2010-003, 2011.

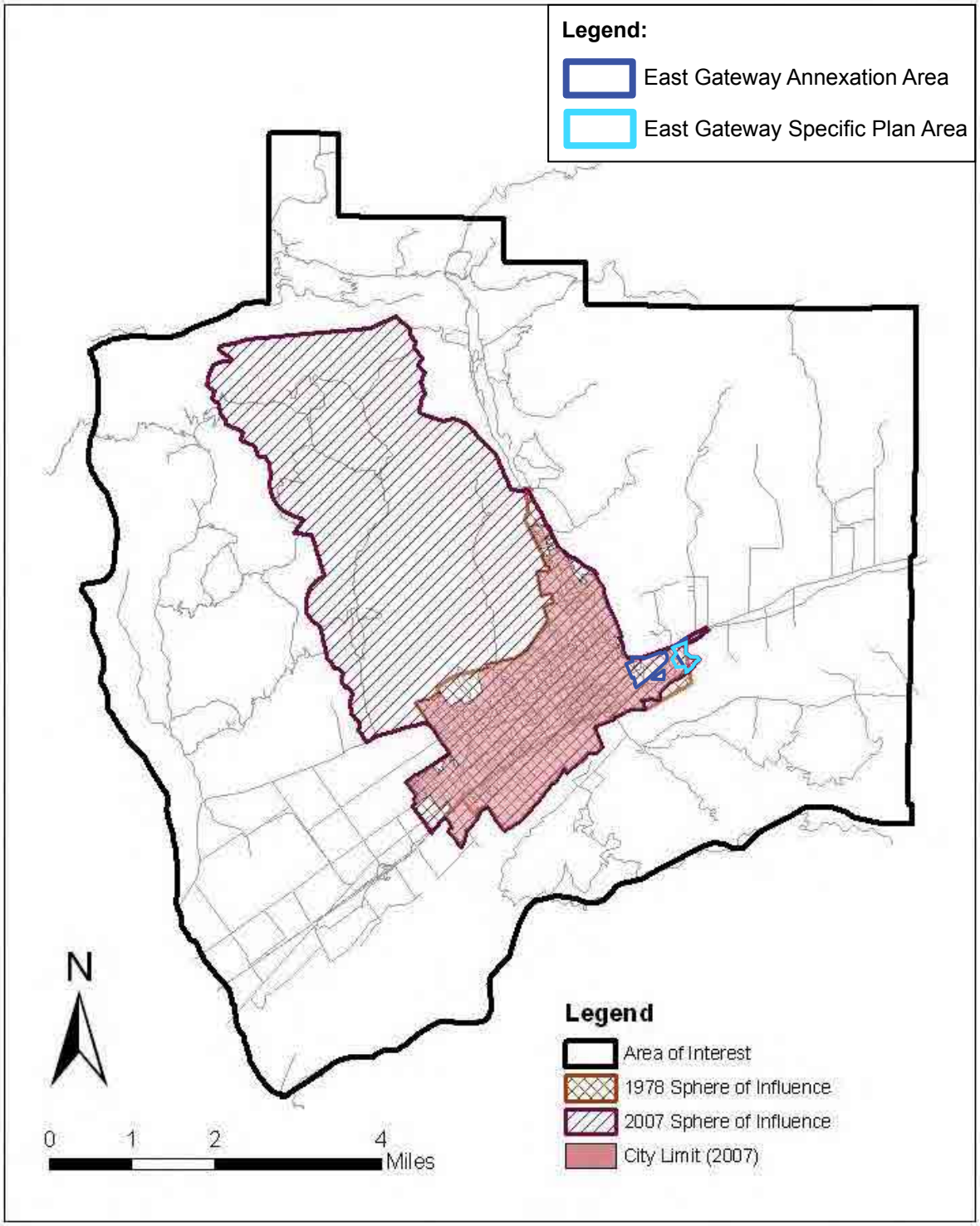
As the forgoing discussion illustrates the Santa Paula Basin is comprehensively managed by the TAC, UWCD, and the reserved jurisdiction of the Court, as provided in the Judgment. The basin's water tables have stabilized and appear to be sufficient to support the allocation of groundwater rights set forth within the Judgment. Moreover, groundwater production rights are defined and limited as a collective whole and in relation to each of SPBPA's individual members. This confinement and definition of the groundwater rights existing within the Basin provides additional certainty for the long-term reliability of the groundwater supply from the Basin.

The TAC will continue to monitor, analyze, and report the results to the Court regarding the basin's groundwater levels and hydrogeological conditions. The TAC will focus its efforts to: (a) determine the cause of the long-term, gradual decline in groundwater elevations; and (b) attempt to formulate actions to address the decline should it persist.

3.2 WATER SERVICE AREA

The City is located approximately 17 miles inland from the Pacific Ocean in central Ventura County, as shown in **Figure 3, City of Santa Paula Location Map**. The City lies within the Santa Clara River Valley, approximately 12 miles east of the City of San Buenaventura and approximately 9 miles west of the City of Fillmore.

The City of Santa Paula is responsible for water supply and distribution within the City's service area, as shown in **Figure 4, City of Santa Paula Water Service Area**. The East Gateway Project is located outside of the City's corporate boundary but within an area identified in the General Pan for future expansion. A portion of the East Gateway Project area is currently located in the City's water service area, and the entire site would be located within the City's service area after annexation of the site to the City.



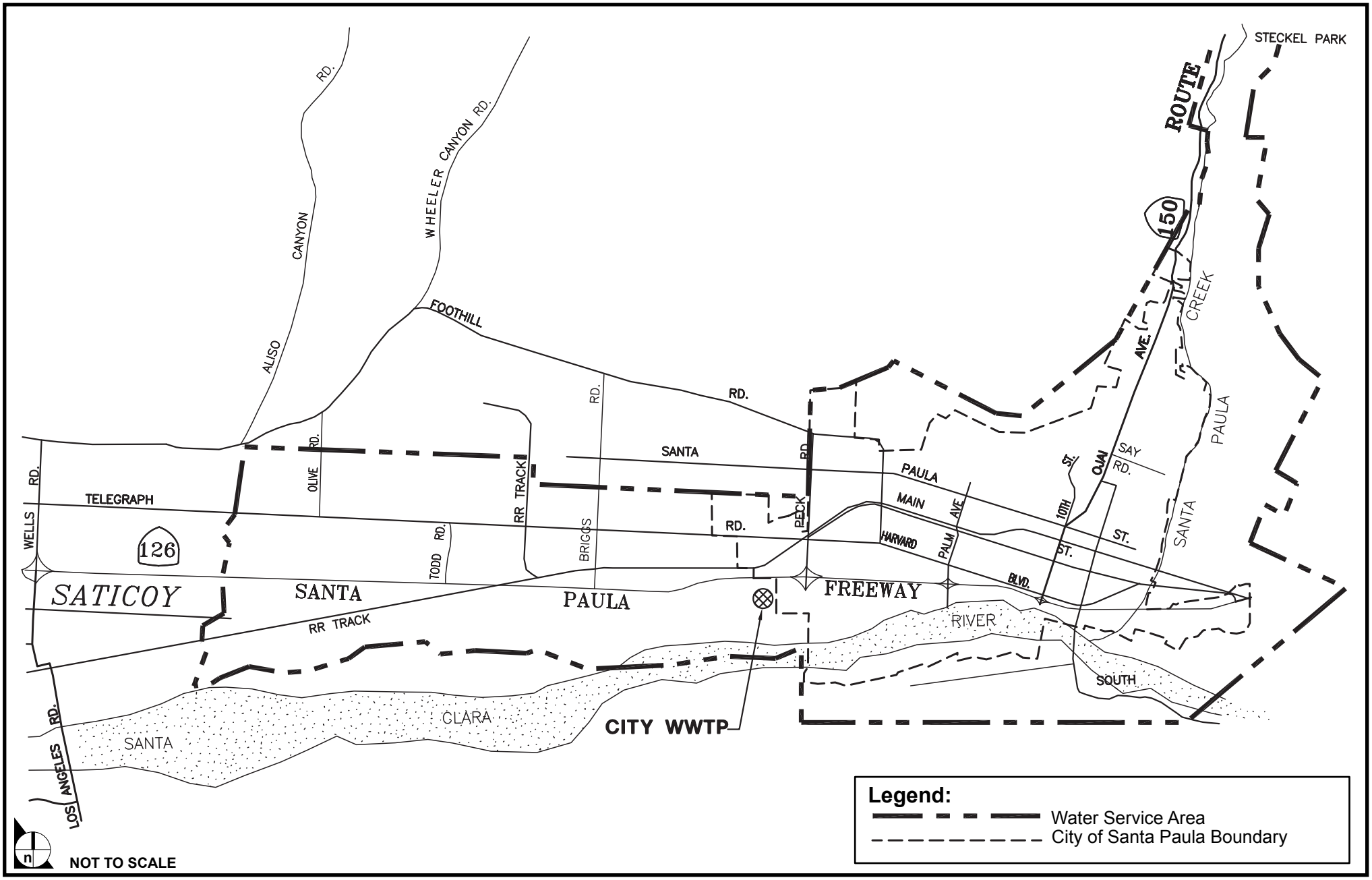
SOURCE: City of Santa Paula - May 2010

FIGURE **3**

Meridian Consultants

City of Santa Paula Location Map

007-002-12



SOURCE: Kennedy-Jenks Consultants, UWMP City of Santa Paula, – December 2005

FIGURE **4**

Meridian Consultants

City of Santa Paula Water Service Area

000-006-12

3.3 GROUNDWATER ALLOCATION TRANSFERS FROM DEVELOPED PROPERTIES

In accordance with City Municipal Code section 52.021 (Water Resource In-Lieu Fee Ordinance No. 1058*)*, landowners or developers are required to transfer their groundwater rights to the City as a condition of project approval. The intent of the Ordinance is to ensure that new urban land users provide sufficient water resources for their needs without taxing existing users. If the associated water rights are not sufficient to serve the proposed development's anticipated water use (as determined by the City), or if the water rights are held by another entity who cannot or will not dedicate those rights to the City, the developer must purchase additional water rights and dedicate them to the City or pay a water resource in-lieu fee to the City. This ordinance applies to water rights within City limits as well as parcels outside City limits who must receive service from the City Water Enterprise.

The City identified 1,925 AFY of potential groundwater allocations that could be transferred to the City from overlying landowners within the City General Plan boundary. One property includes a reserve of 110 AFY for agricultural uses. Thus, the maximum potential net groundwater transfer is 1,815 AFY. **Table 2, Existing and Potential City Water Resources and Demand**, contains a summary of existing and potential water resources. These transfers will occur in phases during the next 20 years as development occurs within the City. Transfers of allocations will need to be reported to the Technical Advisory Committee in accordance with the Judgment. The SPBPA will then transfer the applicable number of memberships (allocations) when transfers are between association members; a membership is equal to 1 AFY of groundwater allocation.

The City's current (2010) Urban Water Management Plan anticipates that the City will acquire through allocation transfers 454 AFY by 2015, 908 AFY by 2020, 1,362 AFY by 2025, and 1,815 AFY by 2030 and 2035 through allocation transfers within the Santa Paula Basin as provided for in the Judgment.[31]

Implementation of these water supply programs is anticipated to provide the City with sufficient water supplies to meet future water demand. As shown in **Table 2,** the potential water supplies available to the City exceed the estimated water demand at City buildout conditions.

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31 City of Santa Paula, *2010 Urban Water Management Plan*, prepared by Milner-Villa Consulting, July 2011, 40.

Table 2
Existing and Potential City Water Resources and Demand
(AFY)

Supplies	2010	2015	2020	2025	2030	2035
Existing Supplies						
City Wells[1]	5,483	5,483	5,483	5,483	5,483	5,483
Santa Paula Creek[2]	500	500	500	500	500	500
Subtotal	5,983	5,983	5,983	5,983	5,983	5,983
Potential Supplies						
Groundwater Allocation Transfers[3]	0	454	908	1,362	1,816	1,816
Purchased Groundwater Allocations[4]	0	200	300	400	497	497
SWP[5]	0	0	0	0	0	0
Recycled Water[6]	0	400	800	1,200	1,622	1,622
Subtotal	0	1,054	2,008	2,962	3,935	3,935
Total Potential Supplies	**5,983**	7,037	7,991	8,945	9,918	9,918
Estimated Demand						
City of Santa Paula	4,416	4,840	5,265	5,689	6,113	6,113
East Gateway Project area[7]	38.5	38.5	38.5	38.5	38.5	38.5
Total Estimated Demand[8]	**5,983**	**7,037**	**7,991**	**8,945**	**9,918**	**9,918**
Difference (Supply – Demand)	**1,567**	**2,97**	**2,726**	**3,256**	**3,805**	**3,805**

Source: City of Santa Paula, 2010 Urban Water Management Plan, prepared by Milner-Villa Consulting, July 2011, Table 4-4.
All values rounded to the nearest 1 AF.
[1] The City's current allocation is 5,483 AFY.
[2] The City currently wheels the 500 AFY of surface water from Santa Paula Creek to Farmers Irrigation Company, which uses the surface water in lieu of pumped groundwater, and the City gains 500 AFY groundwater pumping credits in the Santa Paula Basin.
[3] Total of 1,815 AFY allocation transfers achieved over 4 equal 5-year periods (approximately 454 AFY per 5-year period).
[4] The City anticipates purchasing groundwater allocations. It is anticipated that approximately 200 AFY could be developed by 2015, 300 AFY by 2020, 400 AFY by 2025, and 497 by 2030.
[5] The City has rights to 2,198 AFY. However, actual delivery maybe only 60 percent of water rights (California Department of Water Resources, State Water Project Delivery Reliability Report, 2010) in an average year, 7 percent in a single dry year, and 34 percent in multiple dry years.
[6] The City anticipates initiating a recycled water program by 2015. It is anticipated that approximately 400 AFY could be developed by 2015, 800 AFY by 2020, 1,200 AFY by 2025, and 1,622 by 2030.
[7] It should be noted that the majority of the water demand has already been accounted for in the 2010 UWMP as the Project area is located within the East Area 2 Planning Area of the General Plan.
[8] City will achieve buildout by 2030, thus the 2035 demands are equal to the 2030 demands.

3.4 RECYCLED WATER

Construction of the new City Water Recycling Facility (WRF) was completed early 2010. The treatment capacity of the City WRF is 4.2 mgd, or 4,704 AFY. The City WRF produces water that meets California Title 22 regulations for recycled water. At present, recycled water is not available within the City of Santa Paula area. Estimated recycled water urban demand within the City (and adjacent areas) will be approximately 1,622 AFY. Recycled water is anticipated to be available by 2015. The recycled water demand could be fully met with recycled water from the new WRF, as identified in **Table 3, Potential Recycled Water Demand 2005 to 2035**.

Table 3
Potential Recycled Water Demand 2005 to 2035

Potential Use	2005 (AF)	2010 (AF)[1]	2015 (AF)[1]	2020 (AF)[1]	2025 (AF)[1]	2030 (AF)[1]	2035 (AF)[1]
Landscape Irrigation[2]	0	0	400	800	1,200	1,622	1,622
Groundwater Recharge	0	[3]	[3]	[3]	[3]	[3]	[3]
Agricultural Irrigation	0	[3]	[3]	[3]	[3]	[3]	[3]
Other	0	[3]	[3]	[3]	[3]	[3]	[3]
Total	**0**	**0**	**400**	**800**	**1,200**	**1,622**	**1,622**

Source: City of Santa Paula, 2010 Urban Water Management Plan, prepared by Milner-Villa Consulting, July 2011, Table 4-6.
[1] *All values rounded to the nearest 1 AF.*
[2] *City of Santa Paula,SB610 Water Supply Assessment for the Fagan Canyon Development Project, prepared by RBF Consulting, 2005.*
[3] *Undetermined.*

Additional recycled water demand may be generated by groundwater recharge, agricultural irrigation, and commercial/industrial recycled water use. The City has not yet prepared a recycled water master plan to evaluate potential users, demand, recharge feasibility, and economic feasibility within the City water service area. It is anticipated that the City would gradually develop a recycled water system to meet the objectives of identified recycled water demand.

The Judgment does not preclude the recharge of the Santa Paula Basin, and indeed includes provisions for potential recharge. According to the Judgment, such storage would require approval of the TAC, must not adversely impact the water quality of the Santa Paula Basin, and must not cause injury to any vested rights. In the event the storage of water causes the Santa Paula Basin to spill, the first water lost to the Santa Paula Basin is deemed to be the stored water. Furthermore, title is retained to water stored underground, and stored water (minus losses) may be pumped in addition to the approved pumping allocations, provided no injury is caused to any intervener or party to the Judgment. In other words, if the City recharged 1,000 AFY to the basin, they would be entitled to pump an additional 1,000 AFY above and beyond their stipulated allocation. The necessary infrastructure to implement this option is not

currently in place. At a minimum, construction of a pump station and approximately 4 to 5 miles of pipeline would be necessary to transport the recycled water to recharge basins.

Currently there are no recycled water systems in the East Gateway project vicinity. The proposed East Gateway recycled water system would operate via a proposed 12-inch distribution main as called for by the City's Recycled Water Plan and per the East Area 1 Specific Plan. This main will be available after the City's water recycling plant is operational. The main will terminate at the intersection of Hallock Drive and Telegraph Road, which will become the point of connection for the East Gateway Project. The East Gateway Specific Plan will be serviced with an 8-inch main for the purposes of irrigation for planters and open space.

3.5 NORMAL, SINGLE DRY, AND MULTIPLE DRY YEAR WATER SUPPLY

Currently, the entire potable water supply for the City is obtained by pumping from the Santa Paula Basin. The City has obtained additional groundwater pumping rights through a wheeling agreement with the Canyon Irrigation Company. The potential future water supplies include groundwater rights transfers to the City as new development occurs, City acquisition of potentially available groundwater allocations within the Santa Paula Basin, recycled water, and groundwater production from the Fillmore Basin.

The SPBPA and TAC monitor current and future groundwater pumping within the Santa Paula Basin. The City is not limited to its allocation in any single year, but may produce as much as seven times its annual average allocations over a seven-year period. There are no restrictions regarding pumping in single dry or multiple dry water years subject to court order. As discussed earlier, the Santa Paula Basin Yield Study did not recommend that restrictions be imposed on the amount of groundwater that can be pumped during dry periods. Therefore, groundwater pumping by the City is not anticipated to be subject to any reductions in the dry year analysis. This conclusion is based on the results of the Santa Paula Basin Yield Study completed in July 2003, which analyzed two periods—1944 through 1998 and 1983 through 1995. The Combined 2009 and 2010 Report analyzed two additional periods – 1998 through 2005 and 2005 through TBD, which did not indicate pumping restrictions in a dry year.

Recycled water production will not be affected by single dry or multiple dry water years. Recycled water supply is directly related to wastewater generation, which is generally associated with indoor potable water use. Currently, there are no restrictions within the City regarding the use of potable water during dry periods. Additionally, the currently proposed uses of recycled water are restricted to non-potable irrigation that, if reduced during dry periods, would have little or no impact on the community. Therefore, it is not anticipated that the recycled water supply will be reduced during dry periods.

State Project Water dry year restrictions are not known due to the lack of specificity regarding how the water will be delivered. For the purposes of this analysis, it is assumed that no State Project Water will be

delivered in the near future. However, the City may trade, transfer, and/or sell a portion of the SWP water rights to augment existing supplies.

Water supply scenarios are outlined for current and buildout conditions in **Table 4, Current Water Supply and Demand (2010)**, and **Table 5, Buildout Water Supply and Demand (2035)**, to illustrate the potential impacts to the City's sources of water supply during normal, single dry, and multiple dry years.

Table 4
Current Water Supply and Demand (2010)

			Multiple Dry Years		
	Normal Supply (AFY)	**Single Dry Year (AFY)**	**Year 1 (2011) (AFY)**	**Year 2 (2012) (AFY)**	**Year 3 (2013) (AFY)**
Supply					
Existing Supplies					
City wells within the Santa Paula Basin	5,483	5,483	5,483	5,483	5,483
Santa Paula Creek Surface Water	500	500	500	500	500
Subtotal	5,983	5,983	5,983	5,983	5,983
Potential Supplies					
Groundwater Allocation Transfers	0	0	0	0	0
Purchased Groundwater Allocations	0	0	0	0	0
State Project Water	0	0	0	0	0
Recycled Water	0	0	0	0	0
Subtotal	0	0	0	0	0
Total Supply	**5,983**	**5,983**	**5,983**	**5,983**	**5,983**
Demand					
City of Santa Paula	5,102	5,102	5,102	5,102	5,102
Total Demand	**4,416**	**4,416**	**4,416**	**4,416**	**4,416**
Net Surplus	**1,567**	**1,567**	**1,567**	**1,567**	**1,567**

Source: City of Santa Paula, 2010 Urban Water Management Plan, prepared by Milner-Villa Consulting, June 2011, Table 5-1.

The City will have sufficient water supplies to meet the anticipated demand during normal, single dry, and multiple dry years for the current and buildout scenarios, assuming the potential water supplies are secured by the City. This analysis underscores the importance of securing additional sources of water supply for the City and highlights the potential benefit of recycled water use for common area irrigation.

Table 5
Buildout Water Supply and Demand (2035)

	Normal Supply (AFY)	Single Dry Year (AFY)	Multiple Dry Years Year 1 (AFY)	Year 2 (AFY)	Year 3 (AFY)
	Supplies				
Existing Supplies					
City Wells	5,483	5,483	5,483	5,483	5,483
Santa Paula Creek	500	500	500	500	500
Subtotal	5,983	5,983	5,983	5,983	5,983
Other Potential Supplies					
Groundwater Allocation Transfers	1,816	1,816	1,816	1,816	1,816
Purchased Groundwater Allocations	497	497	497	497	497
State Project Water	0	0	0	0	0
Recycled Water	1,622	1,622	1,622	1,622	1,622
Subtotal	**3,935**	**3,935**	**3,935**	**3,935**	**3,935**
Total Supply	**9,918**	**9,918**	**9,918**	**9,918**	**9,918**
	Demand				
City of Santa Paula	6,113	6,113	6,113	6,113	6,113
East Gateway Project[1]	38.5	38.5	38.5	38.5	38.5
Total Demand[2]	**6,113**	**6,113**	**6,113**	**6,113**	**6,113**
Net Surplus	**3,805**	**3,805**	**3,805**	**3,805**	**3,805**

Source: City of Santa Paula, 2010 Urban Water Management Plan, prepared by Milner-Villa Consulting, June 2011, Table 5-6.
[1] Potential demand for the East Gateway Project has already been include in the 2010 UWMP projections, as discussed in Section 7, Project Impacts.
[2] The City anticipates buildout by 2030. Estimated 2035 demands based on 2030 demands.

3.6 WATER SUPPLY RELIABILITY

The Urban Water Management Planning Act requires urban water suppliers to assess water supply reliability and vulnerability to seasonal and climatic shortage. Reliability is a measure of a water service system's anticipated success in managing water shortages. This assessment must include a comparison of the total projected water demand with the supply available for the following conditions: (1) normal/average water year, (2) single dry water year, and (3) three consecutive dry years.

Costs of demand management or supply augmentation options to reduce the frequency and severity of shortages are now high enough that city planners must look more carefully at the costs of unreliability to make the best possible estimate of the net benefit of taking specific actions, hence the term "reliability planning." To plan for long-term water supply reliability, planners examine an increasingly wide array of supply augmentation and demand reduction options to determine the best courses of action for meeting water service needs. Such options are generally evaluated using the water service reliability planning approach. Reliability planning requires information about the following: (1) expected frequency and severity of shortages, (2) how additional water management measures are likely to affect the frequency

and severity of shortages, and (3) how available contingency measures can reduce the impact of shortages when they occur.

In compliance with the Urban Water Management Planning Act, an assessment was developed to determine the City's water supply reliability. Results for the assessment for each of these three conditions are described below. In addition, the City is required to assess water supply and demand over the next 20 years in 5-year increments.

3.6.1 Current Assessment

The City's existing and potential water supplies and current and future water demand are summarized in **Table 2**. For 2010, the City had 5,983 acre-feet of supply available via groundwater and surface water allocations. The 2010 UWMP assessment indicates that the City would have a net surplus of 1,567 afy in 2010.[32] For the single dry year assessment, the City had 5,983 AF of supply available via groundwater and surface water allocations. This assessment indicates that the City would have a net surplus of 1,567 afy when considering current City and East Gateway Project demand. This assessment indicates that the City would have net surplus of 1,567 afy for each of the multiple dry years. Thus, no deficit was observed during the assessment of current supplies and demand (per **Table 5**).

3.6.2 Assessments for Years 2015 to 2035

The City is required to assess water supply and demand over the next 20 years in 5-year increments. Conservative assumptions were utilized concerning future water demand. The City's 2010 UWMP provides these assessments and is incorporated by reference in this WSA.[33] This assessment assumed no demand reduction due to water conservation programs although these programs may yield significant demand savings. Conservative assumptions were also utilized concerning availability of future supplies. No decrease in availability of groundwater supplies is anticipated through the year 2035. Future supply programs (i.e., purchase/transfer of groundwater allocation credits, SWP water, recycled water) are anticipated to be developed starting in 2010, and fully developed by 2025, to address future demand. However, the City anticipates that groundwater extractions from the Santa Paula Basin will be the primary source of supply to meet future demand.

The 2010 UWMP projects water demand based on the projected buildout of the City's General Plan. The East Area 2 Planning Area was included in the projected water demand analysis in the 2010 UWMP. As discussed above, the East Gateway Project area is included within the East Area 2 Planning Area

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32 City of Santa Paula, *Urban Water Management Plan*, prepared by Milner-Villa Consulting, July 2011, p. 12 and Table 5-1.

33 Ibid, 51-56.

identified in the General Plan. Therefore, the East Gateway Project water demand was included in the 2010 UWMP water supply and demand analysis.

Results of 2015 Analysis

Year 2010 supplies and demand were used for the average/normal year and single dry year calculations. Years 2011 to 2013 supplies and demand were used for the multiple dry years calculations. Estimated supply surplus will be 2,197 AF for average year calculations, single dry year calculations, and multiple dry year calculations.

Results of 2020 Analysis

Year 2020 supplies and demand were used for the average/normal year and single dry year calculations. Years 2020 to 2022 supplies and demand were used for the multiple dry years calculations. Estimated supply surplus will be 2,726 AF for average year calculations, single dry year calculations, and multiple dry year calculations.

Results of 2025 Analysis

Year 2025 supplies and demand were used for the average/normal year and single dry year calculations. Years 2025 to 2027 supplies and demand were used for the multiple dry years calculations. Estimated supply surplus will be 3,256 AF for average ear calculations, single dry year calculations, and multiple dry year calculations.

Results of 2030 Analysis

Year 2030 supplies and demand were used for the average/normal year and single dry year calculations. Years 2030 to 2032 supplies and demand were used for the multiple dry year calculations. Estimated supply surplus will be 3,805 AF for average year calculations, single dry year calculations, and multiply dry years calculations.

Results of 2035 Analysis

Year 2035 supplies and demands were used for the average/normal year and single dry year calculations. Years 2035 to 2037 supplies and demands were used for the multiple dry year calculations. Estimated supply surplus will be 3,805 AF for average year calculations, single dry year calculations, and multiple dry year calculations.

4.0 WATER SHORTAGE CONTINGENCY PLAN

In accordance with the requirements of SB 221, the following section summarizes the City's plan to respond to water shortage emergencies so that water demands are met promptly and equitably.

4.1 INTRODUCTION

The City has several options for meeting future water demands, including increased deliveries of local groundwater, increased deliveries of imported water, evaluating recycled water, and supporting water demand management programs. This has allowed the City, to date, to meet demands in spite of the prior drought conditions. Water shortages can be triggered by a hydrologic limitation in supply (i.e., a prolonged period of below-normal precipitation and runoff), limitations or failure of supply and treatment infrastructure, or both. Hydrologic or drought limitations tend to develop and abate more slowly, whereas infrastructure failure tends to happen quickly and relatively unpredictably.

Drought periods going back to 1929 have caused pumping levels to decrease, however there never has been a necessity to implement mandatory restrictions of water use. More efficient use of water was encouraged during the 1976 to 1977 period. An even greater awareness of water conservation occurred during the 1987 to 1992 drought. This increased awareness resulted in more efficient use of water.

Additional supply reductions could be caused by regional power outage, terrorist activity, earthquake, tsunami or other significant meteorological event. The City prepared an Emergency Response Plan (2004) which provides details of emergency responses for numerous significant events that may affect the City's water system.

4.2 REDUCTIONS IN SANTA PAULA BASIN PRODUCTION REQUIRED BY THE STIPULATED JUDGMENT

According to the Judgment if it is found that the safe yield of the Santa Paula Basin is less than the total pumping allocations, then the pumping allocations shall be reduced. The Judgment specified that reductions in pumping will be required in the order of priority specified below:

- **Stage 1** – All uses in excess of the pumping allocations will be cut back to the approved allocations.
- **Stage 2** – Cumulative pumping allocation of the Santa Paula Basin Pumpers Association (SPBPA) will be reduced by 500 AF annually. This reduction will reflect reasonable conservation that can be achieved. The SPBPA will determine how a reduction in its cumulative allocation will be implemented.
- **Stage 3** – Pumping allocation of the City of San Buenaventura shall be reduced to 1,141 AF per year. This allocation reflects the City of San Buenaventura's historical maximum annual production prior to the Judgment.

- **Stage 4** – The remaining pumping allocations of all parties to the Judgment will be further reduced simultaneously. The SPBPA will reduce their total annual allocations by 2,000 AF. The City of San Buenaventura will reduce their total annual allocations by 500 AF.

- **Stage 5** – The City of San Buenaventura will cease pumping from the Santa Paula Basin.

- **Stage 6** – The remaining pumping allocations of the SPBPA will be reduced by the amount required to bring production into balance with the revised safe yield of the Santa Paula Basin.

4.3 MANDATORY PROHIBITIONS ON WATER WASTING

Water "waste" can be defined as any excessive, unnecessary or unwarranted use of water, including, but not limited to, any use that causes unnecessary runoff beyond the boundaries of any property as served by its meter and any failure to repair as soon as reasonably possible any leak or rupture in any water pipes, faucets, valves, plumbing fixtures, or other water service appliances.

4.3.1 Santa Paula Water Works

Previously, the Santa Paula Water Works (SPWW) regulatory language included a provision to discontinue service for waste of water. Rule No. 11B(3) reads as follows: "Where negligent or wasteful use of water exists on a customer's premises, the utility may discontinue service if such practices are not remedied within five days after it has given the customer written notice to such effect." In addition, SPWW had a Voluntary Water Conservation Plan in its tariffs (Rule 14.2).

4.3.2 County of Ventura

All cities and water purveyors within the County of Ventura were requested to adopt, by March 31, 1991, drought water conservation plans and regulations consistent with the use restrictions listed below. (Note: Each of the following restrictions has certain exemptions where appropriate.)

- Lawn watering and landscape irrigation with potable water is only permitted between the hours of 4 PM to 6 AM

- Irrigation with recycled water permitted on any day at any time

- Washing of buildings, facilities, equipment, autos, trucks, trailers, boats, airplane and other types of mobile equipment is prohibited

- Water shall not be used to wash down sidewalks, driveways, parking areas, tennis courts, patios, or other paved areas

- Water shall not be allowed to run off landscaped areas onto streets or sidewalks due to poorly maintained sprinklers or excessive watering

- Filling and refilling of pools and spas should only be permitted between the hours of 6 PM and 6 AM

- Using recycled water in ponds, fountains, artificial lakes should be encouraged
- Flushing of water mains will not be permitted
- Restaurants shall not serve water to their customers unless specifically requested
- Leaks should be repaired as soon as discovered and shall not be allowed to continue for more than 48 hours

4.3.3 City Ordinance

City Municipal Code (Section 52.038) states, "No person shall [un]lawfully or neglectfully waste water in any manner whatsoever. Continued wasting of water after mailing of [City] notice by registered mail to the customer of record at the mailing address of record by the [City] Director may result in discontinued water service." This Code is a beneficial tool to curb misuse and waste of potable water within the City. The provisions of the Code can be utilized during periods of normal water supply and supply deficiency. Violation of this Code is subject to City penalties.

4.4 PROPOSED WATER DEMAND REDUCTION PROGRAM

The City is establishing a water demand reduction program for worst-case planning purposes. The City is establishing a three-stage water demand reduction program. Stage 1 would impose a voluntary 15 percent water demand reduction goal, Stage 2 would impose an additional 15 percent mandatory reduction goal (total of 30 percent), and Stage 3 would impose an additional 20 percent mandatory reduction goal, for an overall reduction in water demand of 50 percent. Each stage would be implemented as needed based on actual or anticipated supply reductions. Proposed specific water demand reduction measures and triggering mechanisms for each stage are presented below.

4.4.1 Stage 1: 15 Percent Voluntary Reduction – Supply Watch

Stage 1 would be implemented when 5 to 15 percent reduction in water production capacity (or supplies) occurs or is anticipated. This reduction could be due to fire, earthquake, system failures, water quality contamination, or other event. All restrictions during Stage 1 are voluntary. The goal for Stage 1 is 15 percent reduction in water demand. Measures to be implemented during this stage include but are not limited to the following:

- City to communicate to the customers through press releases, brochures, mail-outs, and/or water bills the need to voluntarily conserve water and the many ways possible to conserve without affecting their overall lifestyles.
- Water customers requested to voluntarily limit the irrigation of landscaped areas.

- Water customers requested to voluntary limit non-essential water use. Non-essential water used defined as:
  - Use of water to wash any motor vehicle, motorbike, airplane, or other vehicle.
  - Use of water to wash down sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas.
  - Use of water to wash down buildings or structures for purposes other than immediate fire protection.
  - Flushing gutters or permitting water to run or accumulate in any gutter or street.
  - Use of water to fill, refill, or add to any outdoor or indoor swimming pools, or Jacuzzi-type pools.
  - Use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life.
  - Failure to repair a controllable leak within a reasonable period after having been given notice directing the repair of such leak.

4.4.2 Stage 2: 30 Percent Mandatory Reduction – Supply Warning

Stage 2 would be implemented when a 15 to 30 percent reduction in water production capacity occurs or is anticipated. This reduction could be due to fire, earthquake, system failures, water quality contamination, or other event. All restrictions in Stage 2 are mandatory. The goal for Stage 2 is 30 percent reduction in water demand. Measures to be implemented during this stage include but are not limited to the following:

- Continue to maintain Stage 1 measures; however, they become mandatory in Stage 2.
- City to mail information to water customers regarding the importance of significant water use reductions.
- Implement a 30 percent decrease in water allocation based on a yearly average for metered services. For those users who exceed their allocation, impose a 25 percent penalty for the excess volume. Charge an additional $25 “excess user” fee and install a flow restrictor for repeat offenders of excessive use.
- Enforce the non-essential water use discussed in Stage 1 and assess a $25 fee to offenders.
- Irrigation shall be by means of hand-held hoses, hand-held buckets, soaker hoses, or drip irrigation only. The use if hose-end sprinklers or permanently installed automatic sprinkler systems are prohibited at all times.
- Prohibit watering landscape between 10 AM to 4 PM.
- All restaurants are prohibited from serving water to patrons except upon request of the patron.
- Appoint a Water Conservation Coordinator. This can be an individual already working for the City with related duties.

4.4.3 Stage 3: 50 Percent Mandatory Reduction – Supply Emergency

Stage 3 would be implemented when a 30 to 50 percent reduction in water production capacity occurs or is anticipated. This reduction could be due to fire, earthquake, system failures, water quality contamination, or other event. The goal for this stage is 50 percent reduction in water demand. Measures to be implemented during this stage include but are not limited to the following:

- Perform an evaluation of Stage 2 water conservation measures and implement those not completed. Public Works Director to report to the City Council as appropriate.
- Implement a 50 percent decrease in water allocations for metered water services and charge a $50 "excess user" fee for repeat offenders.
- Prohibit watering landscape between 8 AM to 6 PM.
- All water use not required for health and safety is prohibited.

4.5 City Ordinance

It is recommended that the City establish a water demand reduction program for worst-case planning purposes. It is recommended that the City also create a rate structure to be implemented in the event of a declared water shortage. This rate structure would encourage water conservation while maintaining revenue levels. Three water demand reduction stages would be established with an overall reduction in water demand of 50 percent. Each stage would be implemented as needed based on actual or anticipated reductions in the City's water supplies. It would be the responsibility of the City's Public Works Director to monitor water supplies and demands on a daily basis. This would allow the City to determine the effects of reductions on water production within the system. If evidence of a shortage exists, the Public Works Director would determine the extent of the severity and recommend the applicable stage. The Public Works Director would notify the City Council of the water supply situation, and the Council would be responsible for ratifying the proposed measures. The water shortage restriction program and water rationing rate structure would be adopted by the City Council as a new City ordinance. A public hearing (City Council Meeting) would be necessary to discuss the measures with the general public.

5.0 WATER DEMAND AND FACILITIES

5.1 WATER DEMAND

In order to estimate water demand for the East Gateway Project, the generation rates provided in the City's 2010 Urban Water Management Plan (UWMP) were utilized. The UWMP provides estimates for future water demand related to potential development of 6,116 AFY.[34]

The UWMP provides rates for estimating future demand by per capita, commercial, industrial, parks and recreation, golf course, and schools. For the uses proposed in the East Gateway Project the following is provided:

5.1.1 Commercial – Industrial – Institutional Demand[35]

Average demand for commercial areas will be 15.10 gallons per square foot per year or 2.03 AFY per acre developed according to the City's General Plan. Average demand for industrial areas is 2.49 gallons per square foot per year or 0.33 AFY per acre developed according to the City's General Plan. Average demand rate for the City's existing schools is 1.81 AFY per acre according to the City's General Plan. Irrigation demands for future commercial, industrial, and institutional developments will be met by use of recycled water from the City's future recycled water system. Anticipated total water demands for future commercial, industrial, and institutional developments were estimated to be 912 AFY by 2035.[36]

5.1.2 Residential[37]

Average demand for residential uses will be 0.5 acre feet per year per dwelling unit according to the 2010 UWMP. Anticipated total water demands for future residential developments were estimated to be 3,502 afy by 2035.[38]

5.1.2 East Gateway Project Water Demand

The annual average water demand for the East Gateway Project is estimated to be approximately 38.5 AFY, as shown in **Table 6, East Gateway Project Water Demand**.

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34 City of Santa Paula, *2010 Urban Water Management Plan*, prepared by Milner-Villa Consulting, July 2011, Table 3-2.

35 Ibid, p. 24.

36 Ibid., Tables 3-3 through 3-7.

37 Ibid, p 21.

38 Ibid., Table 3-7.

Table 6
East Gateway Project Water Demand

Development Area	Land Use	Total Units	Demand Rate	Annual Demand (gallons/year)	Annual Demand (acre-feet/year)
Specific Plan Alt 1	Retail commercial	310,000 sf	15.1 gal/sf/yr	4,681,000	14.4
Specific Plan Alt 2	Business park	350,000 sf	15.1 gal/sf/yr	5,285,000	16.2
	Retail commercial	10,000 sf	15.1 gal/sf/yr	151,000	0.5
B	Business Park	68,500 sf	15.1 gal/sf/yr	1,034,350	3.2
C	Retail commercial	250,000 sf	15.1 gal/sf/yr	3,775,000	11.6
D	Light industrial	78,000 sf	2.49 gal/sf/yr	194,220	0.6
E	Light industrial	91,500 sf	2.49 gal/sf/yr	227,835	0.7
F	Light industrial	34,000 sf	2.49 gal/sf/yr	84,660	0.3
G	Light industrial	11,500 sf	2.49 gal/sf/yr	28,635	0.1
H	Light industrial	56,000 sf	2.49 gal/sf/yr	139,440	0.4
I	SF Homes	10 units	0.5 afy	n/a	5.0
		Total demand w/in SP Alt 1		**10,165,140**	**36.2**
		Total demand w/in SP Alt 2		**10,920,140**	**38.5**

Note:
sf = square feet; gal/sf/yr = gallons per square feet per year; afy = acre-feet per year; n/a = not available
Demand rates were utilized from the 2010 UWMP for commercial, industrial, and residential land uses.
It should be noted that the projected water demand for the East Gateway Project is within the projected water demand for the East Area 2 Planning Area.

The East Gateway Project includes approximately 899,500 square feet of planned commercial and industrial buildout and approximately 10 single family dwelling units for the east side of the City of Santa Paula. In addition, Santa Paula Creek will be designated as open space – passive and the railroad will be designated as open space – parks and recreation.

As discussed in the UWMP, the proposed uses will utilize recycled water to meet irrigation demands.

The project does not require or need recycled water to ensure an adequate water supply. However, as indicated in the City's UWMP, recycled water will increase the City's availability of supplies as well as increase the reliability of supplies.

5.2 WATER CONSERVATION MEASURES

The City of Santa Paula has implemented water conservation measures to ensure that customers use water efficiently and that negligent use will have appropriate consequences. Water conservation policies are described in the 2010 Urban Water Management Plan.

Below is a partial list of current adopted water conservation policies:

- Water survey programs for single-family residential and multi-family residential customers
- Metering with commodity rates for all new connections
- Large landscape conservation programs and incentives
- Conservation programs for commercial, industrial, and institutional accounts
- Wholesale agency assistance programs
- Conservation pricing

The combined effect of these policies places responsibility for water conservation on both the developer and the City.

6.0 EXISTING WATER USE

6.1 SANTA PAULA GROUNDWATER BASIN

Groundwater extractions are reported on the semi-annual groundwater production statements filed with UWCD's Finance Department by individual pumpers.[39] These production statements constitute all known pumping from the Santa Paula basin. In calendar years 2009 and 2010, 25,820 acre-feet and 23,115 acre-feet of groundwater respectively were extracted from the Santa Paula basin. A summary of the 2009 and 2010 extractions is shown in **Table 7, Summary of 2009 and 2010 Groundwater Extractions**.

Table 7
Summary of 2009 and 2010 Groundwater Extractions

Pumper	2009 (acre-feet)	2010 (acre-feet)
City of San Buenaventura	1,046.7	629.8
SPBPA Pumpers with Individual Party Allocations	24,694.5	21,460.0
Non-stipulated Pumpers	52.1	72.3
De Minimus Pumpers	26.4	26.7
Total	25,819.7	22,188.8
Agricultural	19,754.1	17,951.7
Municipal & Industrial (M&I)	6,065.6	5,163.3
Total	25,819.7	23,115.0

Source: UWCD, Combined 2009 and 2010 Santa Paula Basin Annual Report, 2011, Table 3.
Notes:
2010 total extractions compiled by SPBPA are 926.21 acre-feet less than those reported to UWCD.
This 926.21 acre-feet adjustment by the SPBPA is under review by UWCD.

The 2009 groundwater extractions of 25,820 acre-feet are only 77 acre-feet more than the 31 year 1980 to 2010 average of 25,743 acre-feet. The 2010 groundwater extractions of 23,115 acre-feet are 2,628 acre-feet less than the 1980 to 2010 average.

The historical groundwater extractions for the Santa Paula basin are shown in **Table 8, Historical Santa Paula Basin Groundwater Extractions (as reported to UWCD)**. The extractions vary from a high of 33,453 acre-feet in 1990 during the peak of the last drought to a low of 16,710 acre-feet during the very wet year of 1983. As shown in **Table 8**, the extractions during 2005 (a wet year) were reportedly 1,585 acre-feet greater than in 2010 which was only a slightly above average rainfall year.

39 United Water Conservation District, Combined 2009 and 2010 Santa Paula Basin Annual Report, Professional Paper 2011-001, October 2011. p. 16.

Table 8
Historical Santa Paula Basin Groundwater Extractions (as reported to UWCD)

Calendar Year	Groundwater Extractions (acre-feet)	Calendar Year	Groundwater Extractions (acre-feet)	Calendar Year	Groundwater Extractions (acre-feet)
1980	26,820	1990	33,453	2000	26,798
1981	27,545	1991	27,056	2001	22,530
1982	22,925	1992	24,355	2002	27,259
1983	16,710	1993	26,998	2003	22,280
1984	29,455	1994	26,244	2004	27,306
1985	26,533	1995	25,042	2005	24,700
1986	21,617	1996	26,008	2006	24,830
1987	24,852	1997	28,961	2007	28,077
1988	25,370	1998	21,622	2008	26,686
1989	29,362	1999	27,700	2009	25,820
				2010	23,115

Source: UWCD, Combined 2009 and 2010 Santa Paula Basin Annual Report, 2011, Table 3.

6.2 EAST GATEWAY PROJECT AREA

The existing East Gateway Project area consists of the Annexation area and the East Gateway Specific Plan area. The existing land uses within these areas include single and multi-family residential dwelling units, commercial, industrial, and mixed uses, agricultural land, fallow agricultural land, and vacant parcels. The approximate floor area is 1,250,000 square feet.

Existing City water demand for the East Gateway Project area for the one year period from July 2010 through August 2011 was 38.99 acre-feet, as shown in **Table 9, Existing Water Use for East Gateway Project Area**. The balance of the Annexation area is residential and commercial areas and fallow agricultural land that is not irrigated.

Water supply for irrigation on the East Gateway Specific Plan area has been historically supplied from on-site wells that overlie the Santa Paula and Fillmore Basins. Existing wells in the area include four wells owned and operated by Farmers Irrigation Company, Inc. (Well Nos. 03N21W12E04S, 03N21W12E08S, 03N21W12F03S and 03N21W12F06S) as shown on **Figure 5, Location of Farmers Irrigation Company Wells**. These wells are part of the overall Santa Paula Groundwater Basin allocations for the Farmers Irrigation Company of 9,913.2 afy.[40]

40 United Water Conservation District, Combined 2009 and 2010 Santa Paula Basin Annual Report, Professional Paper 2011-001, October 2011. Appendix D, Table D-1.

Table 9
Existing City Water Use for East Gateway Project Area

Development Area	Land Use	Water Usage (cf/yr)	Annual Use (gallons/year)	Annual Use (acre-feet/year)
Specific Plan	Ag/Light industrial	n/a	n/a	n/a
B	SF/Ag	69,400	519,112	1.59
C	Ag/commercial	672,800	5,032,544	15.44
D	SF/commercial	380,700	2,847,636	8.74
E	SF/commercial	351,700	2,630,716	8.07
F	Commercial/light industrial	12,300	92,004	0.28
G	Commercial/light industrial	28,100	210,188	0.65
H	Commercial	n/a	n/a	n/a
I	SF	183,500	1,372,580	4.21
	Total	**1,698,500**	**12,704,780**	**38.99**

Source: City of Santa Paula, Water Consumption Summary for East Gateway Area, Date Range 07/2010 through 08/2011.
Note:
cf/yr = cubic feet per year; n/a = not available

Production records for the four Farmer Irrigation Wells located within the East Gateway Specific Plan area for the period 2006 to 2010 are shown on **Table 10, Farmers Irrigation Wells Pumping Records 2006 – 2010**. Based on groundwater monitoring by UWCD, the depth to water ranged from approximately 12 feet to 22 feet below ground surface or 236 to 245 feet msl.[41] Of these four wells, the only well that supplied water to the agricultural field was 03N21W12E08S, FICO Well # 7A on **Figure 5**. It is assumed that this well provided all of the water to the agricultural fields.

Approximately 22 acres of the East Gateway Specific Plan site is under cultivation for a variety of crops, primarily cabbage, parsley, cilantro, etc. Over the last four years, the water required to meet production needs has averaged 407.0 afy over the last four years.

[41] United Water Conservation District, email correspondence from Tony Morgan, August 16, 2011.

Table 10
Farmers Irrigation Wells Pumping Records 2006 – 2010

Well No.	Well ID No.	Owner Name	Year	Period	Total Usage
FICO 7A	03N21W12F03S	Farmers Irrigation Company	2006	1	220.4
			2006	2	375.2
			2007	1	287.1
			2007	2	117.1
			2008	1	435.1
			2008	2	445.1
			2009	1	90.2
			2009	2	64.2
			2010	1	0.4
			2010	2	0.0
			Annual Average		407.0
FICO No. 8	03N21W12E04S	Farmers Irrigation Company	2006	1	275.8
			2006	2	508.3
			2007	1	474.3
			2007	2	589.4
			2008	1	436.9
			2008	2	276.9
			2009	1	323.2
			2009	2	480.3
			2010	1	199.7
			2010	2	395.0
			Annual Average		791.7
FICO No. 9	03N21W12F06S	Farmers Irrigation Company	2006	1	457.1
			2006	2	1,789.3
			2007	1	1,222.4
			2007	2	1,550.5
			2008	1	254.7
			2008	2	1,166.8
			2009	1	1,046.3
			2009	2	1,362.8
			2010	1	758.5
			2010	2	1176.0
			Annual Average		2,156.9
FICO No. 11	03N21W12E08S	Farmers Irrigation Company	2006	1	201.2
			2006	2	257.2
			2007	1	175.1
			2007	2	449.8
			2008	1	425.8
			2008	2	519.7
			2009	1	213.3
			2009	2	309.7
			2010	1	112.8
			2010	2	373.8
			Annual Average		607.7

Source; UWCD, August 2011.

SOURCE: Jensen Engineers, 2011

FIGURE **5**

Meridian Consultants

Well Locations

001-001-06/12

7.0 PROJECT IMPACTS

7.1 PROJECT DEMAND ESTIMATES

The City's General Plan designates the East Area 2 Planning Area 136 acres in total size.[42] The East Gateway Project is 112 acres in total size. Of this total, approximately 100 acres is located within the General Plan designated East Area 2 Planning Area. Based on the General Plan buildout assumptions and the 2010 UWMP water demand rate for commercial uses (2.03 acre-feet per year per acre), the East Area 2 Planning Area water demand is projected to be approximately 74.6 afy. Of this total, the East Gateway Project area allocation is projected be approximately 54.9 afy of water.[43] Furthermore, the 2010 UWMP projected approximately 74.6 afy based on the buildout floor area of the East Area 2 Planning area (1,602,000 square feet).

At buildout, the East Gateway Project would develop 899,500 sq. ft., approximately 56 percent of the projected UWMP water demand. Therefore, the allocated water projection for the East Gateway Project would result in a projected water demand of approximately 41.9 afy.

The East Gateway Project would demand approximately 38.5 afy of City potable water, as shown in **Table 6**. This would result in an increase of approximately 2.6 afy over existing water use and would result in 3.4 fewer acre-feet of water demand than that projected by the 2010 UWMP for the East Gateway Project area and 16.4 fewer acre-feet per year than General Plan projections.

Therefore, the East Gateway Project water demand would be less than that projected in the 2010 UWMP, which has already been accounted for in the 2010 UWMP.

It is understood that the City will need to develop a conveyance system (a recycled water system conveyance plan showing where recycled mains will be built) to provide recycled water to supply recycled water to future development projects. The project does not include any off-site water line improvements to connect the site to the plant to convey recycled water to the site (nor does it need to in order to provide adequate water supplies). In summary, the project does not need or assume recycled water will be provided by any certain date. Rather, the project allows for recycled water to be used when the City can provide it. The worst-case impact then is that potable water from the Santa Paula Basin will be used to satisfy the project's water demands. As discussed herein, there is sufficient groundwater supply

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42 City of Santa Paula, General Plan, Land Use Element, (2010) Table LU-5.

43 100 acres / 136 acres = 0.735; 0.735 x 74.6 afy = 54.9 afy

available from the basin to supply the project's demands without the use of recycled water. Future recycled water deliveries to the Specific Plan site would free the potable water supplies for alternate uses.

7.2 NORMAL, SINGLE DRY, AND MULTIPLE DRY YEAR WATER SUPPLY

Currently, the entire potable water supply for the City is obtained by pumping from the Santa Paula Basin. The City has obtained additional groundwater pumping rights through a wheeling agreement with the Canyon Irrigation Company. Potential future water supplies include transfers of Santa Paula Basin groundwater rights to the City as new development occurs, City acquisition of potentially available groundwater allocations, and recycled water.

The potential source of groundwater for the East Gateway Project includes substantial reserves of groundwater in storage. (See previous discussion.) Thus, so long as groundwater production does not exceed the long-term supply of recharge to the basin, this basin will remain a reliable source of water for the City and all of its demands, including the project, during normal, single dry, and multiple dry years.

Recycled water production will not be affected by single dry or multiple dry water years. Recycled water supply is directly related to wastewater generation, which is generally associated with indoor potable water use. Currently, there are no restrictions within the City regarding the use of potable water during dry periods. Additionally, the currently proposed uses of recycled water are restricted to non-potable irrigation uses that, if reduced during dry periods, would have little or no impact on the community. Therefore, it is not anticipated that the recycled water supply will be reduced during dry periods.

The 2010 UWMP assumed no water would be supplied to the City from the SWP. The City will have sufficient water supplies to meet the anticipated demand during normal, single dry and multiple dry years.

7.2.1 Measures to Develop Water Supplies

As required by Section 10911 of the Water Code, the proposed East Gateway recycled water system would operate via a proposed 12-inch distribution main as called for by the City's Recycled Water Plan and per the East Area 1 Specific Plan. This main will be available after the City's water recycling plant is operational. The main will terminate at the intersection of Hallock Drive and Telegraph Road, which will become the point of connection for the East Gateway Project. A preliminary recycled water site plan layout is presented in the East Gateway Specific Plan. The East Gateway Specific Plan will be serviced with an 8-inch main for the purposes of irrigation for planters and open space.

7.3 GROUNDWATER SUFFICIENCY

According to the UWMP, 100 percent of the City's water supply currently comes from groundwater from the Santa Paula Basin. As described in Section 3.0 above, the Santa Paula basin is projected to be a reliable water supply for the City.

Furthermore, the following design features will be implemented:

- The East Area Gateway Project shall require the use of water conservation measures to reduce water demand. These shall include the use of high-efficiency clothes-washing machines, ultra-low-flow toilets, low-flow showerheads, and evapotranspiration sensor based irrigation controllers, and other such devices to reduce domestic water consumption.

7.4 CONCLUSIONS

Sufficient water supplies exist to support the proposed East Gateway Project development based on the following facts:

- The City of Santa Paula has been identified as the public water supplier for the East Gateway Project.
- All of the estimated water demand for the East Gateway Project was included in the City of Santa Paula's 2010 UWMP.
- The total estimated water demand for the City of Santa Paula and the East Gateway Project at buildout is 6,113 acre-feet per year (of which the Project would account for 38.5 afy, see **Table 5**).
- The East Gateway Project shall install water conservation measures.
- The City has identified several potential water supply sources including:
  - Groundwater Allocation Transfers
  - Purchased Groundwater Allocations
  - Recycled Water
- The total water supply including existing and potential supply sources is estimated to be 9,918 acre-feet per year (see **Table 5**).
- Conclusions in the WSA are based on the results of the City's 2010 UWMP, Santa Paula Basin Yield Study completed in July 2003 and updated October 2011, which analyzed four time periods—1944 through 1998, 1983 through 1995, 1995 through 2005, and 2005 through TBD, DWR's Bulletin 118, 2003 Update, and UWCD's groundwater monitoring data.
- Existing water supply sources include groundwater from the Santa Paula Basin and a water wheeling agreement with the Canyon Irrigation Company.
- The 2003 Yield Study, DWR's Bulletin 118 (2003 Update), and UWCD's groundwater monitoring data indicate that Santa Paula Basin is not in overdraft, but states that groundwater levels are declining within the basin.

8.0 REFERENCES

City of Santa Paula. 2011. *2010 Urban Water Management Plan*.

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9.0 ORGANIZATIONS AND PERSONS CONSULTED

Meridian Consultants

Joe Gibson, Partner/Principal

Chris Hampson, Project Manager

10.0 VERIFICATION

This Water Supply Assessment has been prepared by City of Santa Paula and its representative as of the date below. Based upon the analysis set forth within this Water Supply Assessment, the City verifies that there will be sufficient water supplies for the East Gateway Project during all hydrologic conditions, including normal, single dry and multiple dry years, for more than 20 years into the future. The undersigned hereby represents that he or she has the authority on behalf of City of Santa Paula to execute and make effective this Verification.

City of Santa Paula by:

_____

Signature

_____

Name and Title

_____

APPENDIX

WATER CALCULATIONS

East Gateway Project
Existing Water Demand

EA 2 CONSUMPTION SUMMARY

DATE RANGE 7/2010 THROUGH 8/2011
CONSUMPTION TYPE: TOTAL

YEAR 2010-2011 **RATE TOTALS** in cubic feet (cf)

NOT IN PROJECT AREA

ACCOUNT #	CUST. CLASS	========== ADDRESS ====	RATE TABLE	BILLED CONSUMF	TOTAL CONSUMF	# OF BILLS	AVERAGE CONS (Per m	DEMAND CONSUMPTI(	UNBILLED	EXISTING !	LAND USE	DEVELOPMENT AREA
126-023000	RES	1366 HARVARD BLVD(E)	099	164,600	164,600	13	12,662	0				
126-023500	RES	1438 HARVARD BLVD(E)	001	3,400	3,400	13	262	0				
126-024000	COM	1452 HARVARD BLVD (E)	003	21,900	21,900	13	1,685	0				
126-024500	RES	1480 HARVARD BLVD(E)	003	17,400	17,400	13	1,338	0				
126-025000	RES	1482 MAIN ST (E)	099	2,800	2,800	13	215	0				
126-025500	COM	1498 HARVARD BLVD(E)	001	28,900	28,900	13	2,223	0				
126-026000	RES	1504 MAIN ST (E)	001	12,300	12,300	13	946	0				F
126-026200	COM	17904 TELEGRAPH(E)	005	0	0	13	0	0				G
126-026500	RES	17954 TELEGRAPH(E)	001	17,500	17,500	13	1,346	0				E
126-027000	RES	17926 TELEGRAPH(E)	001	5,600	5,600	13	431	0				G
126-027500	RES	17930 TELEGRAPH(E)	001	12,100	12,100	13	931	0				G
126-028000	RES	17944 TELEGRAPH(E)	001	4,000	4,000	13	308	0		6,145	1 SF Home	E
126-028500	RES	17938 TELEGRAPH(E)	001	10,400	10,400	13	800	0				G
126-029000	RES	17950 TELEGRAPH(E)	001	15,100	15,100	13	1,162	0		46,173	1 SF Home	E
126-029500	RES	17948 TELEGRAPH(E)	001	11,200	11,200	13	862	0		7,500	2 SF Home	E
126-030000	RES	17956 TELEGRAPH(E)	001	8,100	8,100	13	623	0				E
126-030500	RES	17962 TELEGRAPH(E)11J	001	10,400	10,400	13	800	0				E
126-031000	RES	17962 TELEGRAPH(E)	001	56,100	56,100	13	4,315	0		39,776	10 apartments	E
126-031500	RES	17962 TELEGRAPH(E)9J	001	5,500	5,500	13	423	0				E
126-032000	RES	17962 TELEGRAPH(E)12J	001	15,000	15,000	13	1,154	0				E
126-032500	RES	11 WHIPPLE RD	001	14,100	14,100	13	1,085	0				E
126-033000	RES	25 WHIPPLE RD	001	13,800	13,800	13	1,062	0		6,145	1 SF Home	E
126-033500	RES	29 WHIPPLE RD	001	19,300	19,300	13	1,485	0				E
126-034000	RES	52 WHIPPLE RD	001	8,500	8,500	13	654	0				E
126-034200	RES	59 WHIPPLE RD	002	30,500	30,500	13	2,346	0		13,615	1 SF Home	E
126-034500	RES	97 WHIPPLE RD	001	23,700	23,700	13	1,823	0		8,164	2 SF Home	E
126-035000	RES	103 WHIPPLE RD	001	7,200	7,200	13	554	0		40,063	vacant site	E
126-035500	RES	111 WHIPPLE RD	001	9,500	9,500	13	731	0				E
126-036000	RES	123 WHIPPLE RD	002	10,100	10,100	13	777	0				E
126-036500	RES	127 WHIPPLE RD	001	20,500	20,500	13	1,577	0				E
126-037000	RES	131 WHIPPLE RD	001	19,900	19,900	13	1,531	0		64,904	4 SF homes	E
126-037500	RES	112 WHIPPLE RD	001	9,600	9,600	13	738	0		24,829	1 SF Home	C
126-037700	RES	18004 TELEGRAPH(E)	002	7,700	7,700	13	592	0		484,822	ag reserve	C
126-038000	RES	18056 TELEGRAPH(E)	003	7,400	7,400	13	569	0		60,390	Industrial	C
126-039500	RES	18212 TELEGRAPH(E)	001	17,800	17,800	13	1,369	0		44,431	8 SF Homes	C
126-040000	RES	18232 TELEGRAPH(E)	001	61,600	61,600	13	4,738	0				C
126-040500	RES	18236 TELEGRAPH(E)	003	59,900	59,900	13	4,608	0				C
126-041500	RES	18249 TELEGRAPH(E)	005	409,200	409,200	13	31,477	0				C
126-042000	RES	18245 TELEGRAPH(E)	001	12,000	12,000	13	923	0				C
126-066000	RES	18227 TELEGRAPH(E)	001	32,600	32,600	13	2,508	0				B

Source: City of Santa Paula

Date: 06/26/2012
Prepared by: Meridian Consultants

East Gateway Project
Existing Water Demand

126-066500	COM	18145 TELEGRAPH(E)	003	15,700	15,700	13	1,208	0	31,646	transportation	B	
126-067000	COM	18115 TELEGRAPH(E)	003	4,000	4,000	13	308	0	36,263	industrial	B	
126-067500	RES	18113 TELEGRAPH(E)	002	14,300	14,300	13	1,100	0	26,766	1 SF Home	B	
126-068000	RES	18101 TELEGRAPH(E)	001	2,800	2,800	13	215	0	45,302	1 SF Home/commercial	B	
126-068500	RES	18041 TELEGRAPH(E)	003	27,000	27,000	13	2,077	0			C	
126-069000	RES	18035 TELEGRAPH(E)	001	17,800	17,800	13	1,369	0			C	
126-069500	RES	18029 TELEGRAPH(E)	002	42,800	42,800	14	3,057	0			C	
126-070000	RES	17983 TELEGRAPH(E)	001	31,700	31,700	13	2,438	0	7,602	2 SF Homes	E	
126-070500	RES	8 FERRIS DR	001	18,300	18,300	13	1,408	0	7,835	4 Mobile Homes	D	
126-071000	RES	48 FERRIS DR	001	52,800	52,800	13	4,062	0	20,940	1 SF Home	D	
126-071500	RES	60 FERRIS DR	001	5,400	5,400	13	415	0	6,890	2 SF Home	D	
126-072000	RES	17982 FERRIS DR	001	12,000	12,000	13	923	0			D	
126-072500	RES	17988 FERRIS DR	001	9,000	9,000	13	692	0	5,483	1 SF Home	D	
126-073000	RES	17991 FERRIS DR	001	13,600	13,600	13	1,046	0	4,356	1 SF Home	D	
126-073500	RES	17989 FERRIS DR	001	6,400	6,400	13	492	0	4,083	1 SF Home	D	
126-074000	RES	17983 FERRIS DR	001	9,800	9,800	13	754	0	6,071	1 SF Home	D	
126-074500	RES	17977 FERRIS DR	001	13,800	13,800	13	1,062	0			D	
126-075500	RES	17961 TEXAS LN	001	13,800	13,800	13	1,062	0	8,773	2 SF Homes	I	111,600
126-076000	RES	17939 TEXAS LN	001	31,700	31,700	13	2,438	0	11,316	1 SF Home	I	15942.86
126-076500	RES	17931 TEXAS LN	001	12,100	12,100	13	931	0			I	119252.6
126-077000	RES	17925 TEXAS LN	001	28,100	28,100	13	2,162	0			I	0.365973
126-077500	RES	17919 TEXAS LN	001	28,200	28,200	13	2,169	0	19,342	1 SF Home	I	13
126-078000	RES	17915 TEXAS LN	001	27,900	27,900	13	2,146	0	11,877	1 SF Home	I	
126-078500	RES	17911 TEXAS LN	001	31,700	31,700	13	2,438	0			I	
126-079000	RES	17909 TEXAS LN	001	10,000	10,000	14	714	0	12,946	2 SF Homes	I	
126-079500	RES	133 FERRIS DR	001	23,100	23,100	13	1,777	0			D	
126-080000	RES	121 FERRIS DR	001	14,300	14,300	13	1,100	0	7,122	1 SF Home	D	
126-080500	RES	109 FERRIS DR	001	13,100	13,100	13	1,008	0			D	
126-081000	RES	71 FERRIS DR	001	17,300	17,300	13	1,331	0	18,655	1 SF Home	D	
126-081500	RES	65 FERRIS DR	001	15,200	15,200	13	1,169	0	8,493	1 SF Home	D	
126-082000	RES	29 FERRIS DR	001	4,000	4,000	13	308	0	7,938	1 SF Home	D	
126-082500	RES	17963 TELEGRAPH(E)	001	4,600	4,600	13	354	0	3,341	1 SF Home	D	
126-083000	RES	17959 TELEGRAPH(E)	001	10,700	10,700	13	823	0	7,909	1 SF Home/commercial	D	
126-083500	RES	17951 TELEGRAPH(E)	003	137,300	137,300	13	10,562	0	80,742	mixed use industrial	D	
						average monthly total:	**130,366**					

1,248,648 sf

GRAND TOTALS:	cubic feet	**1,698,500**	**1,698,500**	**1,917**
	gallons	12704780	12704780	14340.26
	af	38.99	38.99	0.04

Developme	cubic feet	gallons	af
A	0	0	0
B	69,400	519112	1.59
C	672,800	5032544	15.44
D	380,700	2847636	8.74
E	351,700	2630716	8.07
F	12,300	92004	0.28
G	28,100	210188	0.65
H	0	0	0.00
I	183,500	1372580	4.21
total	**1698500**	**12704780**	**38.99**

CONSUMPTION PERIOD (S) FROM: 7/2010 THROUGH 8/2011
CONSUMPTION TEST BASED ON: TOTAL
CONSUMPTION TYPE TO USE: TOTAL (METER) CONSUMPTION
COMBINE YE TOTALS: YES

1 cf =	7.48	gallons
1 hcf =	748	gallons
1 MG =	1,000,000	gallons
1 acre-foot =	325,851	gallons

Source: City of Santa Paula

Date: 06/26/2012
Prepared by: Meridian Consultants

East Gateway Project
Estimated Water Demand

Annexation Area	Use	Size (sf)	Water Demand Rate	Unit	Water Demand	Unit	Water Demand	Unit
SP Alt 1	retail commercial	310,000	15.1	gal/sf/yr	4,681,000	gal/yr	14.4	AFY
SP Alt 2	business park	350,000	15.1	gal/sf/yr	5,285,000	gal/yr	16.2	AFY
	retail commercial	10,000	15.1	gal/sf/yr	151,000	gal/yr	0.5	AFY
B	business park	68,500	15.1	gal/sf/yr	1,034,350	gal/yr	3.2	AFY
C	retail commercial	250,000	15.1	gal/sf/yr	3,775,000	gal/yr	11.6	AFY
D	light industrial	78,000	2.49	gal/sf/yr	194,220	gal/yr	0.6	AFY
E	light industrial	91,500	2.49	gal/sf/yr	227,835	gal/yr	0.7	AFY
F	light industrial	34,000	2.49	gal/sf/yr	84,660	gal/yr	0.3	AFY
G	light industrial	11,500	2.49	gal/sf/yr	28,635	gal/yr	0.1	AFY
H	light industrial	56,000	2.49	gal/sf/yr	139,440	gal/yr	0.4	AFY
I	SF homes	10	0.5	AFY			5.0	AFY
		899,500	**Total SP Alt 1**		**10,165,140**	**gal/yr**	**36.2**	**AFY**
			Total SP Alt 2		**10,920,140**		**38.5**	**AFY**

existing residential water demand: 0.4 AFY determined from metered data

1 AF = 325,851 gallons

0.5 AFY per dwelling unit has identified in the 2010 UWMP.

East Gateway Specific Plan Area (Development Area A)

SP Alt 1	retail commercial	310,000	15.1	gal/sf/yr	4,681,000	gal/yr	14.4	AFY
SP Alt 2	business park	350,000	15.1	gal/sf/yr	5,285,000	gal/yr	16.2	AFY
SP Alt 2	retail commercial	10,000	15.1	gal/sf/yr	151,000	gal/yr	0.5	AFY
			Total SP Alt 1		**4,681,000**	**gal/yr**	**14.4**	**AFY**
			Total SP Alt 2		**5,436,000**	**gal/yr**	**16.7**	**AFY**

Date: 06/26/2012

Prepared by: Meridian Consultants

East Gateway Project
Water Summary

General Plan Land Use Element

East Area 2 Planning Area

50	acres	highway commercial
55	acres	light industrial/R&D
31	acres	industrial
136	acres	

East Gateway Project

112	acres	100	0.735294	
0.823529			54.89487	AFY pro rata share of GP
82.35294	% of GP			
61.73029	AFY pro rata share of GP			

43,560.00 sf per acre

Buildout General Plan

1,600,830.00	square feet
36.75	acres
74.60	AFY

Buildout 2010 UWMP

1,602,000.00	square feet
36.78	acres
74.66	AFY

Annexation Area

36.20	AFY	w/retail
38.51	AFY	w/business park

Annexation Increase over Existing Conditions

-2.79	AFY	w/retail
-0.48	AFY	w/business park

Difference between General Plan Buildout and Project

-38.41	AFY	w/retail
-36.09	AFY	w/business park

Difference between 2010 UWMP Buildout and Project

-38.46	AFY	w/retail
-36.14	AFY	w/business park

Difference between GP Pro Rata Share and Project

-18.70	AFY	w/retail
-16.38	AFY	w/business park

Difference between UWMP Pro Rata Share and Project

-5.72	AFY	w/retail
-3.41	AFY	w/business park

Date: 06/26/12

Prepared by: Meridian Consultants

East Gateway Project
Water Summary

Potable H2O Demand Rate	
commerical	15.10 gallons per square foot per year
Industrial	2.49 gallons per square foot per year
residential	0.5 AFY

General Plan Land Use Element
East Area 2 Planning Area

50	acres	highway commercial
55	acres	light industrial/R&D
31	acres	industrial
136	acres	

Existing Conditions
38.99 AFY

EA 2 Project Size
899,500 sf
20.65 acres

Percent of UWMP Area for EA 2
56.15 %

Pro Rata share of UWMP water for EA 2
41.92 AFY

Commercial/industrial/institutional land uses

	5706300	future cii water demand sf
	1602000	EA 2 sf
0.280742	28.07423	% EA 2
	74.9582	

Date: 06/26/12
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