



## Watersheds Coalition of Ventura County Proposition 84 IRWMP Planning Grant Attachment 6 – Program Preferences

### Program Preferences

The existing WCVV IRWMP was adopted by the WCVV and its stakeholders in December 2006. Since that time stakeholders within the WCVV, organized within watershed committees, have continued to work together on an ongoing IRWMP program. The WCVV Plan is currently being updated to make the IRWMP compliant with the August 2010 IRWM Guidelines.

As shown in Table 6-1 and detailed below, the special studies will be used to enhance and improve the WCVV IRWMP and will meet all of the program preferences.

#### Include Regional Projects or Programs

The existing WCVV IRWMP includes regional projects and programs. However the discussion of regional projects and programs will be reevaluated as part of the IRWMP Update and will be informed by these special studies.

The special studies will benefit multiple basins across large areas with diverse stakeholders. Both of the studies will address IRWMP objectives by protecting and augmenting regional water supplies, enhancing efficient water use, matching quality to use, and improving the supply reliability across the Region, even in times of drought. Both special studies have wide Regional support as documented in the many letters of support provided in this Attachment.

The Lower Santa Clara River Basins Salt and Nutrient Management Plan (Regional LSCR Plan) constitutes a regional solution to managing salt and nutrient issues and concerns in the Santa Clara River Watershed and addresses multiple objectives, as required by the IRWM guidelines. The Regional LSCR Plan will allow multiple agencies to continue to use and/or expand use of recycled water in their service areas. The Regional LSCR Plan will benefit four separate groundwater basins of the Lower Santa Clara River: Mound, Santa Paula, Fillmore, and Piru basins, which in total underlie 67,300 acres (105 square miles) of Ventura County. In total these basins provide an average of 86,100 acre-feet of water for use in the County. The Regional LSCR Plan will comprehensively address all four basins, the water users, and contributors of salts and nutrients in the study area. This will avoid the need to develop separate salt and nutrient management plans for each groundwater basin and/or individual recycled water project.

For many years, the Region has undertaken great efforts to implement recycled water programs. The Regional LSCR Plan is a necessary extension of these local efforts. It will provide important opportunities for increasing regional supply reliability while reducing dependence on imported water through increased use of recycled water and adequate protection of groundwater supplies.

Efforts to sustainably manage the Las Posas Basin have consistently had a strong regional focus, which includes the Las Posas Basin Conjunctive Use Study (Las Posas Study). This study will benefit the multiple and diverse water users in the Las Posas Basin by increasing regional water supplies and enhancing beneficial uses currently impacted by salinity in the basin. This regional program is supported by a wide stakeholder base from across the Las Posas Valley. In addition to the United Water Conservation District, Calleguas Municipal Water District, and the County of Ventura, principal interests are local groundwater pumpers that include cities, mutual water companies and water districts, and agricultural interests. The Las Posas Valley Groundwater Basin encompasses a surface area of 42,200 acres (66 square miles), of which the East and South Las Posas Basins make up the majority. Currently, the East and South Las Posas Basins (the basins addressed by the study) supply over 27,100 acre-feet per year, with the majority of water extractions used for agricultural purposes (Fox Canyon Groundwater Management Agency, Annual Report, 2010).

While the Las Posas Study will directly enhance opportunities for brackish water production in the Las Posas Valley, this study represents a basin-wide effort with far-reaching regional benefits. The Calleguas Creek Watershed, in which the Las Posas Basin is located, is heavily dependent on imported water for its supplies. For many years, the Region has worked to improve local water supply, as evidenced by the construction of the Salinity Management Pipeline and plans for future desalters. The Las Posas Study and associated results will provide a critical framework for advancing similar efforts in other basins of the Region. The study will establish effective methods and opportunities for desalting of brackish groundwater supplies, which remains one of few means to augment regional water supplies. It thereby represents a crucial



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**TABLE 6-1  
PROGRAM PREFERENCES SUMMARY**

<b>Program Preferences</b>	<b>WCVC Special Studies Proposal Summary</b>
1. Include regional projects/programs	✓
2. Effectively integrate water management within a hydrologic region	✓
3. Effectively resolve significant water-related conflicts within or between regions	✓
4. Contribute to attainment or one or more objectives of CALFED Bay-Delta Program	✓
5. Address critical water supply/quality needs of DACs	✓
6. Effectively integrate water management with land use planning	✓
7. Include actions designed to integrate stormwater resource plan requirements into IRWMP	✓
8. Address Statewide Priorities of:	✓
a. Drought preparedness	✓
b. Use and reuse water more efficiently	✓
c. Climate change response actions	✓
d. Expand environmental stewardship	✓
e. Practice integrated flood management	✓
f. Protect surface water and groundwater quality	✓
g. Improve tribal water and natural resources	
h. Ensure equitable distribution of benefits	✓



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step towards increasing regional water supply with untapped groundwater sources and in turn decreasing dependence on imported water in the Region.

#### **Effectively Integrate Water Management Programs and Projects within a Region**

The existing WVCV IRWMP integrates water management programs and projects. Project review and integration will again be undertaken by the stakeholders as part of the IRWMP Update. The Regional LSCR Plan and Las Posas Study are themselves well integrated studies as described below. Development of these studies will take place as part of the broad WVCV forum and will provide additional opportunities to integrate various water management projects, programs, and strategies.

The Regional LSCR Plan is a multi-faceted study that will integrate multiple water management strategies to address critical regional objectives. The close interconnectedness of water supply issues with water quality issues provides opportunity for increased integration of water management activities. Approximately 65 percent of the water needs in Ventura County are supplied by groundwater resources, making the quality and protection of these water resources critical for the Region. Increased use of recycled water also leads to an increased need to balance its use with groundwater basin protection.

The Regional LSCR Plan will include a collaborative stakeholder process in order to identify possible opportunities for integration with other projects and programs.

Currently, the Las Posas Basin Specific Management Plan, which is in draft form, explicitly includes a goal to integrate groundwater management within a regional context. The strong stakeholder-driven regional approach to managing the Las Posas Basin includes the Las Posas Study, which will merge water management strategies with water quality strategies to provide multiple regional benefits. The study will provide a more comprehensive understanding of the Las Posas Basin as well as the opportunities and constraints related to new water supply from the shallow aquifer. This study will create the framework to incorporate the sometimes competing goals of groundwater development and groundwater protection.

#### **Effectively Resolve Significant Water-Related Conflicts within or Between Regions**

The special studies will effectively resolve water-related conflict both within and between regions by addressing critical issues associated with water supply, water supply reliability, and water quality through a stakeholder process. By establishing a more thorough understanding of the basins with updated and more complete data, the special studies will allow the scale of local resource issues, such as the extent of salt and nutrient impacts, to better be defined. As a result, water-related conflicts can better be anticipated, addressed or resolved.

Currently no individual or regional salt and nutrient management plan(s) exists for any of the lower Santa Clara River groundwater basins. By working together, the identified parties intend to pool their resources toward common data sharing, analyses and report writing. The Regional LSCR Plan will enable cooperation among all interested parties and will also provide a direct forum for coordination with the Upper Santa Clara IRWMP Region. This will help resolve potential conflicts between water managers and users in both the Upper and Lower portions of the watershed. Future conflicts related to groundwater water-quality issues that might arise from future recycled water projects overlying the four basins of the Lower Santa Clara River can be mitigated with the help of the groundwater monitoring plan and salt and nutrient source identification that will be conducted under the Regional LSCR Plan.

Another place where water-related conflict could be minimized is in the community of Piru. Chloride poses a significant problem in the Piru basin, where treated wastewater effluent discharged to percolation ponds has led to degraded water quality in the basin. Potential downstream migration of this effluent could also threaten lower reaches of the Santa Clara River. However, recycled water is the only readily available means to supplement water available to this DAC. The Regional LSCR Plan will provide the data needed to develop solutions that balance these competing interests.

By addressing multiple common regional objectives and with a strong stakeholder driven regional approach, the Las Posas Study will also greatly contribute to resolving water-related conflicts in the Region. One of the goals of the Las Posas Study is to prevent the need for basin adjudication. The basin has some zones with moderate to good water quality and other zones that are brackish and unusable. The



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existing groundwater management approach uses historical allocations, efficiency allocations, and credits. Unfortunately this system has over-allocated the sustainable yield of the available high quality groundwater. Development and treatment of the brackish water will reduce the stress on the zones that are currently over-pumped and will allow both urban and agricultural uses to be addressed. Cooperative regional alternative management approaches offer greater benefits than if each interested party pursues its narrow self-interest. New information on the groundwater sources and local water needs obtained through the study will enable more effective planning and enhanced response to regional issues, resulting in conflict resolution.

#### **Contribute to Attainment of one or More Objectives of the CALFED Bay-Delta Program**

Currently, water supply in Ventura County consists of 25 percent imported State Water Project water, which is from the Sacramento Bay-Delta. Water consumption currently exceeds locally available water, so that meeting growing water demands without using additional imported water will be a challenge. Recycled water and previously untapped brackish groundwater sources are among the only sources of new local water supplies. Without the Regional LSCR Plan, recycled water projects cannot be implemented in the Santa Clara River Watershed in full compliance with the Recycled Water Policy. Additionally, without the Las Posas Study, underutilized, untapped groundwater supplies will remain unused.

The special studies will increase regional water supply reliability by identifying opportunities for more efficient and sustainable use of local supplies. As a result, demand for, and dependence on, imported water supplies will be reduced. Reduced demands on imported Bay-Delta water will increase water supply availability and improve water quality for alternative beneficial uses, as well as improve and increase aquatic and terrestrial habitats and enhance ecosystem health in the Delta system.

#### **Address Critical Water Supply or Water Quality Needs of Disadvantaged Communities within the IRWM Region**

The special studies effectively address water supply and water quality needs of DACs dependent on water supplies located in the special study areas. As shown in Figure 6-1, there are large pockets of DACs in the community of Piru and city of Santa Paula. The

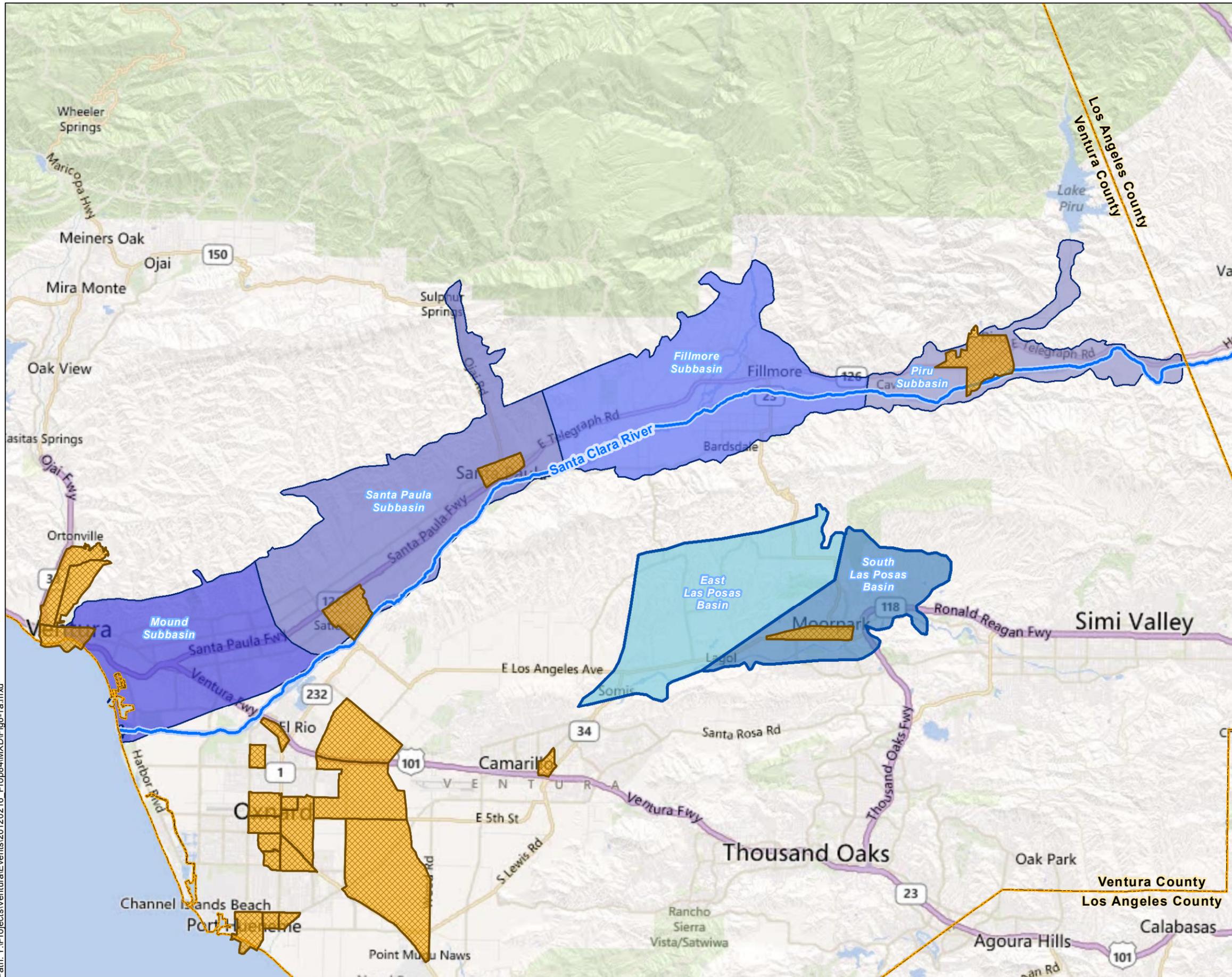
Regional LSCR Plan will protect both the water quality and the water supply available to these communities. Importantly the Regional LSCR Plan will help balance the need for additional water supply made available through recycled water while protecting supplies for agriculture, an important aspect of the local economy that supports many of the DACs.

As an example, in Piru, a DAC located in the upper portion of the Lower Santa Clara River watershed, salinity issues are already a concern. In the Piru Basin, the primary source of water to the community, water supplies can be limited particularly during periods of drought, with competition between potable water uses and agricultural needs. Due to Waste Discharge Requirements issued several years ago, the Piru Wastewater Treatment Plant has recently undergone upgrades. As part of this upgrade, the Piru Tertiary Treatment Facility will provide recycled water to agriculture, in lieu of higher priced groundwater. However, a salt and nutrient management plan is needed to use this recycled water.

Providing this additional source of reliable, local water supply has far-reaching benefits for the DAC of Piru, including reducing competition for groundwater supplies for both municipal and agricultural irrigation needs. By providing recycled water to local agriculture at a cost lower than that of potable water, agricultural operations can be maintained and will continue to provide employment to the residents of this community, even under drought conditions.

Figure 6-1 also demonstrates that there is a pocket of households qualifying as a disadvantaged community in the South Las Posas Basin. Given the agricultural nature of this area it is likely that there is a greater extent of DAC households than is captured by American Community Survey data as reflected in Figure 6-1. Demographers estimated that the Census missed migrant workers at a rate of 10 to 15 percent and the rate is likely higher in areas such as Southern California with large numbers of undocumented immigrants and migrant agricultural workers (Michael Hoefer, Nancy Rytina, and Bryan Baker. "Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2007," U.S. Department of Homeland Security (2008). [www.dhs.gov/xlibrary/assets/statistics/publications/ois\\_ill\\_pe\\_2007.pdf](http://www.dhs.gov/xlibrary/assets/statistics/publications/ois_ill_pe_2007.pdf).)

The Las Posas Study will help address the salinity issues in this basin, enhance water supply reliability, and protect a low cost water supply available to agricultural users, critical for both DACs documented by the Census and those that the Census cannot effectively identify due to their migrant nature.

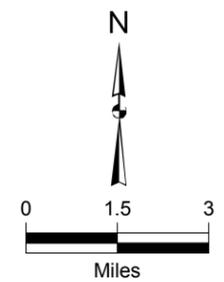


Vicinity Map

**Legend**

- Disadvantaged Communities  
Median Household Income <= \$48,706

Data from 2005 - 2010  
American Community Survey and  
Ventura County Income Survey.



**Kennedy/Jenks Consultants**

Prop 84 Planning Grant  
Ventura County, California

**Disadvantaged Communities  
Census Tracts 2010**

K/J 1289003\*00  
March 2012

**Figure 6-1**

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### Effectively Integrate Water Management with Land Use Planning

There has been a strong focus on integrating land use planning throughout the IRWM process, including on-going collaboration with the Ventura County's Resource Management Agency, Planning Division, as well as involvement of local cities through the City/County Planning Association. The special studies will enhance the link between water and land use planning including:

- Promoting water management strategies consistent with land use policies;
- Promoting the use and delivery of recycled water, which requires in depth understanding of current and future land uses;
- Facilitating land use policies that protect and preserve the County's important agricultural lands; and
- Promoting better understanding by land use planners of available water supplies to meet future needs as projected in land use plans.

The Regional LSCR Plan and the expansion of recycled water in the Region are closely tied to land use planning and provide significant opportunity for further integration with water management. One of the primary benefits of water recycling is augmenting water supplies and being able to offset potable water demand.

Specific goals described in the County's General Plan include promoting reclamation and reuse of wastewater for recreation, irrigation and to recharge aquifers. The County currently has several water resource management programs relating land use planning to recycled water use. Within the Ventura County Water Management Plan (1994), a policy is in place requiring the use of recycled water for beneficial uses, such as wetlands, agriculture, golf courses, parks and other landscape irrigation or industrial uses, where feasible. Other mandates require new development and specified new and existing uses to use recycled water when feasible.

The Ventura County Planning Division has produced standards for landscape design, which include requirements for recycled water use. For example, the County requires that all landscape projects shall install recycled water irrigation systems if this water source is available and feasible; further, the feasibility of using recycled water shall be evaluated under certain circumstances, such as for large-scale projects.

Given the importance of agriculture to the local economy, the preservation of agricultural resources, including access to water resources, is a priority of local land use entities. In 2009 the estimated gross value for Ventura County agriculture was \$1,623,857,000. The Ventura County General Plan states that it is County policy to:

*Preserve and protect irrigated agricultural lands as a nonrenewable resource to assure the continued availability of such lands for the production of food, fiber and ornamentals.*

Both the Regional LSCR Plan and the Las Posas Study provide the data needed to preserve the quality and quantity of water for the important agricultural uses in the County.

### Include Actions Designed to Integrate the Stormwater Resource Plan Requirements into an IRWM Plan

Stakeholders in Ventura County, working with the statewide Local Government Commission, have developed a resource document containing recommended actions to guide implementation of a watershed-based strategy aimed at aligning local planning and stormwater management. The purpose of this is to minimize the water quality impacts of future development in Ventura County. This document is the functional equivalent of a Stormwater Resources Plan and will help Ventura County and its cities comply with the new countywide National Pollutant Discharge Elimination System (NPDES) stormwater permit, while meeting other environmental and community goals. Specifically, the recommended strategies will help integrate land use best management practices such as compact development with site-specific strategies including low impact development. These land use best management practices are outlined in the Technical Guidance Manual prepared by the County of Ventura as part of the Stormwater (MS4) Permit.

The Las Posas Study will provide information on conjunctive use potential in that Basin. This will be the first step in identifying opportunities to augment local water supply through groundwater recharge or storage for beneficial reuse of stormwater. The Las Posas Study will link the Stormwater Resources Plan and the IRWMP.

### Drought Preparedness

The outcome of the special studies will position the Region to more effectively address long-term



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droughts. They will help develop additional sustainable local water sources and increase water supply reliability, even during extended dry periods.

Execution of these studies will achieve the following specific drought-related objectives:

- Promote conjunctive use and water recycling;
- Achieve long-term reduction of potable water use; and
- Improve effective and efficient groundwater basin management.

The Las Posas Study will facilitate a new local source of water to agricultural users in the Las Posas Valley by producing previously untapped brackish groundwater. An alternative water supply will also be made available to agriculture and other non-potable uses in the form of recycled water as a result of the development of the Regional LSCR Plan. It is important to note that recycled water is considered to be a virtually drought-proof water source whose availability is unaffected by dry year conditions, unlike surface water supplies. In recent years imported surface water sources have become increasingly less reliable due to prolonged dry conditions and increasing competing interests. During drought conditions there is also increased competition for regional groundwater resources. By making additional non-potable water available for appropriate uses, potable water supplies will be more available to meet water demands and as needed for other beneficial purposes in the Region.

#### Use and Reuse Water More Efficiently

The special studies are crucial in helping the Region meet future water demands, increase water supply reliability, and adapt to climate change through more efficient use and increased reuse of existing local water resources.

Recycled water projects promoted through development of the Regional LSCR Plan will greatly contribute to increasing urban and agricultural water use efficiency, particularly by better matching water quality to water uses. Potable water demand can be offset and thereby more efficiently used, by providing recycled water in lieu of potable water to non-potable uses, such as agriculture, golf courses, parks and other landscape irrigation.

Additionally, the special studies will help augment local water supplies and increase efficient use by reducing the amount of usable water exported from the Region. Promoting water recycling will allow wastewater

effluent to be reused within the Region, instead of discharging it to the Santa Clara River, for example, where it subsequently flows to the ocean without direct further beneficial use.

The Las Posas Study will also evaluate the water quality needs of the various users and will identify the existing infrastructure available for delivering water to various uses. The ultimate result will be a plan whereby water quality is “matched” to use and therefore used more efficiently.

#### Climate Change Response Actions

The special studies will augment local water supplies, thereby increasing local water supply reliability and reducing demand for imported water. This will result in reduced water-related energy demands and greenhouse gas emissions, as the delivery of imported water requires significantly more energy than that of local water supplies, including treated brackish and recycled water. The special studies will allow for the continued use and expansion of recycled water, a supply that is anticipated to be reliable even given predicted climate change. Additionally, it can be anticipated that State Water Project supplies will become increasingly unreliable as a result of climate change, so that improving local water supply reliability achieved by these special studies will become an increasingly important climate change response strategy.

By protecting regional water sources and improving water quality, the special studies will improve the Region’s ability to adapt to climate change.

#### Expand Environmental Stewardship

The Regional LSCR Plan will facilitate use of recycled water in a way to enhance ecosystem health. Diverting recycled water from natural water bodies and ecosystems for use elsewhere will greatly enhance ecosystem health and contribute to improved resource stewardship. For example, the Regional LSCR Plan will make it possible for the City of Ventura to divert and recycle between 50 to 100 percent of its wastewater effluent, effluent that would otherwise be discharged to the Santa Clara River estuary.

#### Practice Integrated Flood Management

The Las Posas Study will provide opportunities for using brackish water from the shallow aquifer, thereby potentially freeing up storage capacity in the basin. This could provide opportunities to integrate flood



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management and stormwater capture with conjunctive use strategies.

#### **Protect Surface and Groundwater Quality**

Water quality issues are currently impacting water resources across Ventura County. Major regional issues involve nutrients and eutrophication, as well as salinity impairments. Salinity issues in the Santa Clara River Watershed are currently of concern in the Piru, Fillmore, and Santa Paula subbasins, for which a regional solution is direly needed. The Santa Clara River is on the 303(d) list of impaired waters due to high chloride levels that limit its beneficial use for irrigation, groundwater recharge, and aquatic habitat. The Regional Water Quality Control Board has established a Total Maximum Daily Load (TMDL) limit for chloride in the lower river. Wastewater treatment effluent has been identified as the major source of nitrogen compounds and a major contributor of chloride to the watershed. By treating wastewater effluent for use as a recycled water source, rather than discharging the effluent to surface waters or groundwater basins, the expansion of recycled water projects will lead to improved water quality and protection of regional ground and surface water sources.

By taking a basin-wide approach, the Regional LSCR Plan will provide information on regional opportunities and constraints for dealing with critical regional water-related concerns and will result in effective management of the salts and nutrients within the Region. This will also facilitate compliance with the chloride TMDL.

The Las Posas Study will contribute to protecting regional groundwater supplies, improving water quality and exporting salts from the Calleguas Creek Watershed. The Calleguas Creek Watershed has some of the most serious water quality impairment problems in Ventura County, with a total of 14 water bodies considered "impaired". In addition to agricultural activities, treated wastewater effluent and imported water supplies are large contributors of salts and nutrients to the basins. The analysis supporting the Calleguas Creek Watershed Salts TMDL found that salts imported into the watershed from the State Water Project in addition to confined aquifers and background salt concentrations, result in salt loading that exceeds salt concentrations naturally exported from the watershed. This salts imbalance results in concentrations that also exceed water quality objectives. A co-benefit of reducing dependence on imported water with increased use of local groundwater supplies will be a reduction of salts

imported to the system, resulting in improved water quality and salinity management.

#### **Improve Tribal Water and Natural Resources**

The Chumash are Native Americans that inhabited parts of several central and south coast counties, including the County of Ventura prior to Spanish occupation. The Chumash still reside in Ventura County today. Some tribal members have been participants in the IRWMP process since its inception. As part of the WVCV IRWMP update Native American Tribes with interest in Ventura County have been identified. Tribal members have expressed concerns that continued degradation of water quality and habitat quality will limit their historical ability to live off the land and ultimately threatens the culture of Chumash and indigenous peoples. The special studies are one step towards addressing these concerns. The work of the special studies will include active solicitation of tribal member input.

#### **Ensure Equitable Distribution of Benefits**

The special studies will improve and protect water quality while improving water supply reliability in both the Santa Clara and Calleguas Creek Watersheds. Benefits of the special studies will be widely distributed across most of Ventura County.

As shown in Figure 6-1, DACs are found in the study areas for both the Regional LSCR Plan and the Las Posas Study. DACs are counted among the key constituencies for outreach activities planned as part of the special studies and input will be sought for individual tasks.