



## SECTION 2.0 – Highlights of IRWM Plan Accomplishments Since 2006

### 2.1 Overview

The first WVCV IRWM Plan was adopted in December 2006 by more than 30 participating entities including all 10 cities and a number of water districts, special districts, the County, non-governmental entities and others. Over the seven years since adopting the 2006 IRWM Plan, WVCV stakeholders have been working hard to implement programs and projects that meet the Plan's goals and objectives. The Region has been successful in obtaining IRWM and Stormwater grant funding to implement projects identified in the IRWM Plan.

In 2012 the WVCV received a Project of the Year award from the local chapter of the American Public Works Association in the Environmental Category. In 2014 the WVCV Received the Richard V. Laubacher Water Conservation Award from the United Water Conservation District. Collaborative efforts of WVCV members have resulted in collaboration, successful project implementation, water quality improvements, enhanced recreational opportunities, more reliable water supplies and successful habitat restoration projects. These awards recognize and celebrate these accomplishments.



### Summary of Accomplishments:

- **2007:** The County of Ventura, on behalf of the WVCV, was awarded a \$25 million Proposition 50 IRWM Implementation Grant for a suite of 11 projects, and



subsequently executed a contract with the State Water Resources Control Board to manage the grant.

- **2009:** The WCVV adopted a Charter to formalize WCVV governance structure and create add the WCVV steering committee to the existing governance structure.
- **2009:** The WCVV IRWM Region was accepted by DWR as an IRWM Region for the purposes of funding under the Proposition 84 IRWM Grant Program.
- **2010:** The County of Ventura, on behalf of the WCVV received a Proposition 84 IRWM Planning Grant from DWR for approximately \$486,000.
- **2011:** The WCVV prepared an Addendum to the 2006 WCVV IRWM Plan to add new projects for subsequent grants.
- **2011:** The County of Ventura, on behalf of the WCVV, was awarded a \$17.5 million Proposition 84 IRWM Round 1 Implementation Grant for a suite of 8 projects, and subsequently executed a contract with DWR to manage the grant.
- **2007 to present:** Stakeholders within the WCVV, organized within watershed committees, continue to work together on an ongoing IRWM program, funded by contributions from member entities. A variety of integrated projects are being implemented throughout the County. As an important part of the ongoing WCVV IRWM efforts, representatives of the WCVV have been meeting with representatives of neighboring IRWM Regions: the Upper Santa Clara River IRWM Region, the Greater LA IRWM Region, and the Santa Barbara County IRWM Region.

## 2.2 Programs and Projects Implemented

Table 2-1 contains a list of projects and programs implemented within the WCVV IRWM Region during the past seven years and includes the name of the implementing agency, source of major funding, brief description of the project, whether it is a project in a Disadvantaged Community (DAC), completion date and which IRWM Plan goals are addressed by the project/program.

The WCVV IRWM Region has been successful in obtaining a significant amount of IRWM grant funding from Propositions 50 and 84 since 2007. These funds are being used to prepare an update to the IRWM Plan, conduct special studies and implement IRWM projects. To date, WCVV has received more than \$43 million in IRWM grants matched with \$61 million dollars of local funding for a total of nearly \$105 million.



**TABLE 2-1  
PROJECTS AND PROGRAMS ONGOING AND COMPLETED SINCE 2007**

Project Title	Implementing Entity or Lead Agency or Partners	Brief Description	Estimated Completion Date	Major Sources of Funding	IRWM Goals Addressed* By Number
<b>REGIONAL EFFORTS</b>					
Hydromodification Control Plan	Ventura County Watershed Protection District	Design guidance to minimize hydromodification (changes to runoff patterns) impacts to natural streams associated with applicable new development and redevelopment in Ventura County.	September 26, 2013	Local agency funding	
Watershed Signs	Ventura County Watershed Protection District	Multiple watershed identification signs were erected in public and reminding them to “Keep it Clean”.	June 30, 2014	Local agency funding	
Regional Water Use Efficiency Group	Led by City of Ventura	Local water purveyors and interest groups working together to implement regional programs (such as Water Wise Gardening website) to promote efficient water use.	Ongoing	Local agency funding	1 and 5
Ocean Friendly Gardens	Led by Surfrider Foundation	Retrofit of existing residential landscape to be more water efficient.	Ongoing	Individual Agency Funding	1 and 5
Cooperating Technical Partners Flood Mapping Project	FEMA, County of Ventura, Ventura County Watershed Protection District, and affected cities	Hydrologic modeling, and mapping of select floodplains throughout Ventura County.	Project completion anticipated in September 2014	FEMA, and Watershed Protection District Funding	3, 5, & 6



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Fox Canyon Groundwater Management Plan Update	Ventura County Watershed Protection District, Calleguas Municipal Water District, United Water Conservation District, and Ventura County Farm Bureau	Groundwater Management Plan (GMP) goals included: (1) the setting of specific management objectives for each groundwater basin, (2) the identification of groundwater management strategies at the 5, 10 and 15 Year milestones to reach the basin goals.	Current GMP update adopted in 2007. Next GMP update completion anticipated in 2015	CGMA Groundwater Extraction Charges	1, 2 & 6
Groundwater level monitoring (CASGEM)	Ventura County Watershed Protection District	State DWR designation as the Uniform Monitoring Entity (UME) for Ventura County under the California Statewide Groundwater Elevation Monitoring Program (CASGEM)	Ventura County received 1 <sup>st</sup> UME Designation in the State in 2011, with final designation of all groundwater basins in the County	Watershed Protection District Funding	1, 2 & 6
MS4 Stormwater Permit Reissuance	Ventura County Watershed Protection District, County of Ventura and all ten cities	Countywide Stormwater Permit, to control stormwater discharges to the Maximum Extent Practicable in compliance with Clean Water Act	RWQCB Adopted MS4 Permit in July of 2010	Watershed Protection District NPDES Benefit Assessment Funding	1, 2, 4, 5 & 6



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State Local Levee Assistance Program Grant-Funded Projects	Ventura County Watershed Protection District and affected cities	Technical evaluations of 7 levees and Critical Repairs of 3 levees located throughout Ventura County	Local Levee Evaluation (LOLE) work completed in 2009-10. Local Levee Critical Repair (LLCR) Work completion anticipated by 2016	State Local Levee Assistance Program grant-funding and Watershed Protection District local match funding	3, 4, 5, & 6
Urban Water Management Plan Updates	All urban water providers required to submit Urban Water Management Plans	Urban Water Management Plans address future water supply, demand, recycled water, groundwater and demand management measures	Last updates completed in 2010-11 – next updates due in 2015	Local funding	1 and 6
Study on aligning water quality and land use planning in Ventura County	Local Government Commission with local partners	A comprehensive analysis of local land use planning measures and their impact on water quality, including recommendations for future policies and ordinances	Completed in 2008	Regional Water Quality Control Board grant	1, 2 and 6
Agricultural Water Use Efficiency (Mobile Irrigation Lab)	Ventura County Resource Conservation District (RCD)	Equipment and staff that conduct site assessments and provide recommendations for irrigation improvements to use water more efficiently	Ongoing	319H grants and local match	1,2 & 6



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VCAILG – Implementation of Agricultural BMPs	Farm Bureau, Ventura County Resource Conservation District (RCD), Natural Resources Conservation Service	Program to implement Ag Waiver – to assess, monitor and improve agricultural runoff	Ongoing	Grower contributions	1, 2, & 6
Hillside Erosion Control Ordinance	Ventura County Resource Conservation District (RCD)	Requirement to limit erosion due to agricultural operations on hillsides	Ongoing	-	1, 2, & 6
Stormwater Quality BMPs (Horse and Livestock BMP Implementation)	Ventura County Resource Conservation District (RCD)	Best management practices for livestock and equine operations to improve water quality	Ongoing	Local	1
Ventura County Regional Urban Landscape Efficiency Project	Led by City of Oxnard with local urban water purveyor partners	Project to improve landscape irrigation efficiency through evaluations and installation of irrigation controllers tied to weather conditions and soil moisture monitoring	To be completed in 2015	Proposition 84 and local match	1, 2, and 6
Water Wise Gardening Website	Led by Casitas MWD with local urban water purveyor partners	Regional website with water efficient landscape design and irrigation information for homeowners, businesses and contractors	Ongoing updates made	Local funds	1, 2 and 6
Water Quality Monitoring	Multiple entities	Ongoing water quality monitoring conducted by County Watershed	Ongoing – since 2007 additional	Local funding	2



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		Protection District, local water purveyors, citizen groups and others	monitoring efforts have been added		
<b>CALLEGUAS CREEK WATERSHED EFFORTS</b>					
Lower and Upper Calleguas Creek Watershed Protection Plan	Ventura County Watershed Protection District, Calleguas Municipal Water District, and cities of Camarillo Moorpark, Thousand Oaks and Simi Valley	Preparation of a long range planning document to address flood risks from existing FEMA flood hazard areas	Reports completed: Lower Study in April of 2010; and Upper Study in August of 2013	Watershed Protection District Funding	1 through 6
North Simi Drain Retrofit	Ventura County Watershed Protection District and City of Simi Valley	Relocation and increase in flood conveyance capacity of the drain required to protect against flooding in adjacent areas	Project completed in December of 2009	FEMA and Watershed Protection District Funding	3 & 6
Calleguas Creek Arundo/Tamarisk Programmatic EIR, EA, Permits and Pilot Removal Project	Ventura County Resource Conservation District	Project to assess impacts of invasive plant species in the watershed and obtain master permit for removal. Also included pilot removal project	Completed in 2012	Proposition 50 and local funding	1 through 6
Camarillo/Camrosa Recycled Water Interconnection	Camarillo Sanitary District	Camarillo Sanitary District and Camrosa Water District are constructing the Recycled Water Interconnection, allowing wider distribute of recycled water to customers of both purveyors	To be completed in 2014	Proposition 84 and local funding	1, 2 and 6



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Chloride and other TMDLs	TMDL Users Group	Development of TMDLs in the watershed	Most are complete	EPA grant and local funding	
Las Posas Basin Conjunctive Use Study	Led by Calleguas Municipal Water District	The purpose of this special study is to better understand the opportunities and constraints to developing the shallow brackish groundwater in the East and South Las Posas basins to resolve water-related conflicts in the Region.	To be complete in 2015	Proposition 84 Planning Grant and local match	
Las Posas Basin Specific Management Plan	Multiple Parties – water purveyors and groundwater pumpers	The Las Posas Users Group is developing a basin specific groundwater management plan for consideration by the Fox Canyon Groundwater Management Agency's Board of Directors. The plan will cover the South Las Posas, East Las Posas, and West Las Posas Basins.	To be completed in 2013-14	Local funding	1, 2 and 6
Moorpark Reclaimed Water Distribution System Expansion Project	Ventura County Waterworks District #1	Development of additional capacity to distribute recycled water for landscape irrigation.	To be complete in 2015	Proposition 84 and local funding	1, 2 and 6





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Regional Salinity Management Project – Phases 1A – 2B	Calleguas Municipal Water District	Network of pipelines and desalter facilities to treat and reuse brackish water and dispose of brines to the ocean	Phase 1 complete, Phases 2 A and B underway – to be complete in 2015	Proposition 50, 84 and local funding	1, 2, and 6
Round Mountain Desalter	Camrosa Water District	Camrosa is constructing the Desalter to treat local brackish groundwater using reverse osmosis technology. This will provide a new source of potable water and improve local supply reliability and helping reduce purchases of water imported from the State Water Project	To be complete in 2015	Proposition 84 and local funding	1,2 and 6
Simi Valley Tapo Canyon Groundwater Treatment Plant	City of Simi Valley	This project is developing and treating local groundwater supplies for potable use, thereby reducing dependence on Imported State Water	Completed in 2012	Proposition 50 and local funding	1, 2 and 6



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<b>SANTA CLARA RIVER WATERSHED EFFORTS</b>					
County Government Center Parking Lot Green Streets Urban Retrofit Project	Ventura County and Ventura County Watershed Protection District	Project involves innovative Low Impact Design (LID) to reduce parking lot runoff volumes, pollutant loads, and recharge groundwater through system that infiltrates runoff flows including irrigation water from adjacent landscape areas into the underlying soils. The project will provide stormwater pollution prevention outreach and education opportunities due to the County Government Center parking lot's high visitation frequency and visibility.	Project completion anticipated in April of 2016	Prop 84 grant-funding, Ventura County and Watershed Protection District local match funding	1 through 6
Piru Dump Bank Stabilization Project	Ventura County Watershed Protection District, Ventura County Engineering Services Department, and County Executive Office	The Piru Dump is a closed burn dump adjacent to the Santa Clara River. The bank adjacent to the Santa Clara River was eroded in 2004-2005 winter storms. The Piru Dump Bank Stabilization Project included reconsolidation of waste that had been	Project completed in March of 2011	CalRecycle, County of Ventura and Watershed Protection District Funding	2, 3, 4, & 6



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		washed into the river and building an engineered bank to prevent future erosion, protecting the river from future burn waste exposure.			
Salt and Nutrient Management Plan for Lower Santa Clara River Watershed	Ventura County Watershed Protection District, County of Ventura Waterworks District No. 16, United Water Conservation District, Farm Bureau of Ventura County, and cities of Fillmore, Santa Paula and Ventura	Salt and Nutrient Management Plan (SNMP) is being developed for the Lower Santa Clara River groundwater basins [Fillmore, Mound, Piru, Santa Paula and Oxnard Forebay]. The objective of the SNMP is to manage salts and nutrients from all sources on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses	Plan completion scheduled for December of 2014	Proposition 84 Planning Grant, and Watershed Protection District and participating entities (ie. Cities of Fillmore, Santa Paula, and Ventura and County Waterworks District No. 16) local match funding	1, 2, 4, 5 & 6
Santa Clara River Watershed Feasibility Study – Modeling Efforts	United States Army Corps of Engineers, Los Angeles County Flood Control District and Ventura County Watershed Protection District	Feasibility Study being performed in order to develop technical data required to identify and understand the flood protection and water resource challenges and	Study components: Hydrology modeling completed in November of 2009, Geomorphology completed in May	United States Army Corps of Engineers, Los Angeles County Flood Control District and Ventura County	2, 3, 4 & 6



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		opportunities present in the SCR watershed. The feasibility study is expected to identify project opportunities with justified Federal interest that can then be further developed with more detailed studies that lead to Federally funded construction projects	of 2011, Flood mapping in May of 2012, and Sediment Transport completion anticipated in 2015	Watershed Protection District Funding	
Expanding Recycled Water Delivery Project Feasibility Study	City of Ventura	To complete a United States Bureau of Reclamation Title XVI Water Reclamation and Reuse Program feasibility study for the proposed Expanding Recycled Water Delivery Project	March 2014	United States Bureau of Reclamation Title XVI Grant & SWRCB Water Recycling Grant	1
Phase 2 Santa Clara River Estuary Special Studies	City of Ventura and Participating Agencies in the Santa Clara River Watershed	Evaluated a variety of opportunities for diverting discharge to the SCR Estuary for the purposes of recycling the water and benefitting the local communities' water supply, including the creation of wetlands.	March 2013	City of Ventura	1, 4 & 5



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Fillmore Integrated Recycled Water and Wetlands Project	City of Fillmore	Construction of new, tertiary treatment level wastewater treatment plant and wetlands	Completed in 2011	Proposition 50 and local funding	1 through 6
Piru Wastewater Treatment Plant <b>(DAC Project)</b>	Ventura County Waterworks District No.16	Construction of new wastewater treatment plan for the community of Piru	Completed in 2011	American Recovery and Reinvestment Act of 2009 - ARRA	1,2 and 6
Piru Wastewater Treatment Plant Tertiary Upgrade <b>(DAC Project)</b>	Ventura County Waterworks District No.16	Upgrade to tertiary treatment to allow for recycled water use	To be completed in 2015	Proposition 84 and local funding	1, 2, 4, and 6
Santa Paula Water Recycling Facility	Santa Paula Water, Perc Water and Alinda	Construction of new tertiary treatment level wastewater treatment plant	Complete	Public/Private Partnership	1, 2, 4, and 6
Natural Floodplain Protection Program	The Nature Conservancy	The Nature Conservancy is implementing the Natural Floodplain Protection Program to preserve a critical section of the floodplain in the Santa Clara River Watershed. This project will establish a Floodplain Conservation Zone, where private property easements will be acquired to prevent future development.	To be completed in 2015	Proposition 84 and local funding	1 through 6



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El Rio Septic to Sewer Conversion Project <b>(DAC Project)</b>	Ventura County Waterworks District	This project involved taking local residents off septic systems and connecting them to a sewer treatment facility – thus reducing degradation to local groundwater supplies	Completed in 2011	Proposition 50 and local funding	2
Oxnard Septic to Sewer Conversion Project	City of Oxnard	This project involved taking local residents off septic systems and connecting them to a sewer treatment facility – thus reducing degradation to local groundwater supplies	Completed in 2011	Proposition 50 and local funding	2
Regional Groundwater Flow Model Update – Phase 1	United Water Conservation District	An update to a regional groundwater flow model enabling local entities to better understand the surface/groundwater interaction and to coordinate project development and assess impacts to groundwater	Completed in 2013	Proposition 84 Planning Grant and local funding	1 and 6



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Santa Clara River Parkway Project	California Coastal Conservancy	The primary goal of the Santa Clara River Parkway Project is the acquisition, conservation, and restoration of floodplain lands within the Santa Clara River corridor	Ongoing	Coastal Conservancy Funding	1 through 6
Celebrate the Watershed – Public outreach event	Multiple Entities	A public outreach event that followed the successful Watershed University Program conducted in 2005.	Completed in May 2012	Local entities – in kind	5
GREAT Project – Groundwater Recovery and Treatment	City of Oxnard	The GREAT Program combines wastewater recycling, brackish groundwater desalination, groundwater injection, storage and recovery, and restoration of local wetlands to provide an additional water supply source to the Oxnard Plain through the year 2030	Total completion by 2030	Local funding and assorted grants	1, 2, 5 and 6
<b>VENTURA RIVER WATERSHED EFFORTS</b>					
Assessment of Southern Steelhead Population	Led by Ventura County Watershed Protection District	Project to assess steelhead population through ongoing study	Study completed in March of 2009	California Department of Fish and Game grant-funding and Watershed Protection District local-match funding	4 & 6



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Bio-Digester Focused Feasibility Study	Watershed Protection District, Waste 2 Energy and Ventura River Watershed Council project partners	Focused technical study of the use of a biodigester, along with complimentary material handling processes, which are designed to convert local organic wastes (including green waste, food waste and horse and cattle manure) generated in the Ventura River Watershed into energy and other useful byproducts.	Study completed in June of 2013	Proposition 84 Planning Grant-funding, and Watershed Protection District and W2E local-match Funding	1, 2, 4, 5 & 6
Foster Park Wells	Ventura County Watershed Protection District	Initial construction of 2 water supply wells to provide a back-up source of water when the river is too turbid to allow existing facilities to operate	Project completed in August of 2010	Proposition 40 Consolidated Grant-funding and Watershed Protection District local-match funding	1 & 2
Matilija Creek/Ventura River Non Native Plant Removal Project	Ventura County Watershed Protection District	Remove and achieve control of non-native plants from the headwaters of the Matilija Creek to Highway 150 bridge	Project completed in 2011	Proposition 40 Consolidated Grant and River Parkways Grant-funding and Watershed Protection District local-match funding	1 through 6





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Matilija Dam Ecosystem Restoration Project	Ventura County Watershed Protection District, United States Corps of Engineers, and Coastal Conservancy	Pre-Construction elements of the project to restore the ecosystem in the Ventura River Watershed including work to prepare Detailed Design Reports for several project elements; work on design of Santa Ana Boulevard and Camino Cielo Bridges, sediment studies, and purchase of Matilija Hot Springs	Pre-Construction elements of the Matilija project completion anticipated by April 2015	United States Corps of Engineers, Coastal Conservancy and Watershed Protection District funding	1 through 6
San Antonio Creek Non-Native Plant Removal Retreatments	Ventura County Watershed Protection District	Project provides grant funding for two years of additional re-treatment to follow-up on the initial non-native plant removal work conducted from the headwaters of the San Antonio Creek Watershed to Soule Park	Project completion anticipated by October of 2015	Proposition 50 Grant-funding and Watershed Protection District local-match funding	1, 2, 4, & 6
San Antonio Creek Spreading Grounds Rehabilitation Project	Ventura County Watershed Protection District and partners	Project helps augment the Ojai Valley's water supply by diverting a portion of the precipitation that is typically lost downstream to the rehabilitated spreading grounds and the newly-constructed aquifer recharge wells	Project completion anticipated by May of 2014	Proposition 50, and Proposition 84 Grant-funding, and Watershed Protection District local-match funding	1, 2, 4, 5 & 6



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Ventura River Trailhead and Trail Improvements	Ventura County Watershed Protection District, Ojai Valley Land Conservancy, and Ventura County Resource Conservation District	Construct an ADA compliant trailhead and trail, and improve equestrian, biking, and hiking trail on Ojai Valley Land Conservancy Land at Old Baldwin Road	Project completed in April of 2011	California Natural Resources Agency's River Parkways Grant-funding and Watershed Protection District local partner cost share	4, 5, & 6
Ventura River Watershed Protection Project	Ventura County Watershed Protection District	Project implementation elements included: (1) development of a watershed runoff model, (2) surface water quality monitoring, (3) groundwater monitoring, (4) removal of invasive plants, and (5) preparation of a Plan Report.	Project completed in February of 2012	Proposition 50 Grant-funding and Watershed Protection District local-match funding	1 through 6
Ojai Meadows Ecosystem Restoration Project	Ojai Valley Land Conservancy	This project enhances the success of the existing Ojai Meadows Preserve project by increasing the number of acres being preserved adjacent to the wetlands.	To be completed in 2015	Proposition 84 and local funding	1, 4, 5 and 6



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Ojai Valley Sanitary District (OVSD) Effluent Reuse Title 22 Engineers Report	City of Ventura	City of Ventura is interested in expanding the recycled water usage in the North Ventura Avenue Area through reuse of OVSD effluent.	Initiated in 2013	City of Ventura	1 and 6
2013 Comprehensive Water Resources Report	City of Ventura	To provide a comprehensive evaluation of the City's current and projected water supply needs.	2013	City of Ventura	1, 2 and 6
Watershed Coordinator	Watershed Wide - led by Ojai Valley Land Conservancy	Creation of a staff position to coordinate activities in the Watershed and develop a watershed management plan.	Initiated in 2011. Continues through September 2014	Watershed Coordinator Grant, local match	1 through 6
Algae TMDL	Watershed Protection District and Stakeholders	Development of maximum daily loads for Algae in the Watershed	March 2013	State funding	1 and 2
Ojai Basin Groundwater Model	Ojai Basin Groundwater Management Agency	A groundwater model (MODFLOW-SURFACT) for the Ojai Basin to improve understanding of the basin and to improve management	2011	Local funding	1 and 6
Water Supply and Demand Study	Bren Students at UCSB sponsored by Surfrider Foundation	Preparation of a comprehensive assessment of the water supply and demand balance in the	Completed in 2013	UCSB Bren School and local funding	1 and 6



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		watershed with recommendations to bring the watershed into balance with best management practices			
Ojai Basin Groundwater Management Plan (OBGMP) Update	Ojai Basin Groundwater Management Agency	Update to OBGMP with current data, policies and recommended actions	Completed 2007	Extraction fees	1, 2, 5 and 6
Watershed University	U.C. Cooperative Extension led	Comprehensive six session course on all aspects of water in the watershed.	Conducted May 2010	U.C. Cooperative Extension, local contributions, registration fees	5

\*Approved IRWM Goals:

1. Reduce dependence on imported water and protect, conserve and augment water supplies
2. Protect and improve water quality
3. Protect people, property and the environment from adverse flooding impacts
4. Protect and restore habitat and ecosystems in watersheds
5. Provide water-related recreational, public access, stewardship, engagement and educational opportunities
6. Prepare for and adapt to climate change

### 2.2.1 Examples of Multi-Benefit Projects Implemented in WCVL IRWM Region

#### Multi-Benefit Projects Implemented to Meet Regional Priorities

There are numerous multi-benefit, integrated projects being implemented, or considered for implementation, in the WCVL IRWM Region. A few of these projects are described below.

**Calleguas Regional Salinity Management Project (SMP):** The SMP is a cornerstone project integral to the construction of a series of brackish groundwater desalters, but also necessary for overall salt management in the Watershed. This project is being partially funded with Proposition 50 and Proposition 84 Implementation Grant funds. The SMP will provide brine disposal for a



number of local agencies within the Calleguas Municipal Water District (CMWD) service area including the cities of Camarillo, Moorpark and Simi Valley, and the Camrosa Water District – all of which are building desalters to improve water quality. These projects cannot be implemented without the SMP, as the SMP provides the sole mechanism for brine disposal in the Watershed. Therefore, there is a strong linkage between the SMP and the various desalter projects during both implementation and operation.

In addition to the projects contained within the IRWMP, the SMP will also facilitate wetlands restoration efforts within Ventura County, by making recycled water and brines collected available for coastal wetlands restoration efforts. The SMP can provide a much needed water supply to sustain restored wetlands. The reliability of the water supply from the SMP adds significantly to the feasibility of the various wetlands projects being considered in Ventura County. Removal of arundo and tamarisk from the Watershed was achieved by the Calleguas Arundo Removal Project, also being funded by Proposition 50 IRWM funds, benefitting wetlands restoration efforts, by eradicating non-native species that can damage wetlands habitats.

#### Conjunctive Use Through In-Lieu Deliveries

In addition to surface recharge ponds, the Freeman Diversion also supplies river water to two pipeline systems that deliver this water to agricultural pumpers in lieu of their pumping groundwater. The Pleasant Valley Pipeline delivers this river water to Pleasant Valley County Water District for distribution to pumpers. The Pumping Trough Pipeline conveys diverted river water to agricultural pumpers on the Oxnard Plain, thus reducing the amount of groundwater extractions in areas susceptible to seawater intrusion. When river water is not available, United Water Conservation District uses five Lower Aquifer System wells to pump water into the pipeline.

In a different type of in-lieu delivery, United Water Conservation District also pumps and delivers groundwater to the cities of Oxnard and Port Hueneme and Naval Base Ventura County. This water is pumped from wells adjacent to the surface spreading ponds, where the aquifers are readily

recharged. The Cities and Naval Base Ventura County use this water in lieu of pumping their own wells closer to the coastline, where pumping could pull seawater into the aquifers.

A newer in-lieu system operated by Camrosa Water District diverts flows from Conejo Creek and delivers the water to Pleasant Valley County Water District to meet local irrigation demands within the overdrafted Pleasant Valley basin. The Conejo Creek Diversion Project diverts a combination of natural stream flow and recycled water released into the creek from wastewater treatment plants upstream.

### **Matilija Dam Ecosystem Restoration Project**

The Matilija Dam Ecosystem Restoration project is perhaps the largest multi-benefit project underway in the Watershed. This effort includes multiple jurisdictions and stakeholders including the Ventura County Watershed Protection District and the Army Corps of Engineers. Water diversion and storage structures, such as the Matilija Dam and Reservoir, commonly have harmful impacts on natural habitat. This 190 foot high concrete arch dam, completed in 1948 has various problems, including large volumes of sediment deposited behind the dam and the loss of the majority of the water supply function and designed flood control capability; the deteriorating condition of the dam; the never-functional fish ladder and overall obstruction to migratory fishes such as the Federally listed endangered Southern California steelhead trout; the loss of riparian and wildlife corridors between the Ventura River and Matilija Creek; and the loss of sediment transport contributions from upstream of the dam, with resulting erosion to downstream reaches of the Ventura River, the estuary and the sand-starved beaches along the Ventura County shoreline. Sedimentation behind the dam has rapidly reduced the ability to store a significant amount of water for future use and has significantly altered the natural river ecosystem. It is estimated that approximately six million cubic yards of sediments (silts, sands, gravels, cobbles and boulders) have accumulated behind the dam. A relatively small and shallow lake remains behind the dam, presently estimated to be less than 500 acre feet or barely seven percent of the original capacity.

In 2004, the Army Corps of Engineers issued the Matilija Dam Ecosystem Restoration Feasibility Study Final Report, recommending full dam removal in one phase and short-term storage of a portion of the trapped sediment within the reservoir basin. Stakeholders continue to seek funding for aspects of this project, as well as studying possible project alternatives and methods for disposal of accumulated sediments.

### **Ojai Valley Land Conservancy Projects**



The Ojai Valley Land Conservancy has protected thousands of acres and over three miles of the Ventura River in the Ojai Basin. It is currently involved in numerous restoration projects along the river, has begun restoration of the Ventura River Preserve and is working towards implementation of the Ventura River Parkway with its project partners. The Ojai Meadows project is one of the largest restoration projects and has resulted in habitat protection, creation of new habitat areas, reduction in flood flows and improved water quality.



## **City of Ventura Wastewater Reuse Project**

The City of Ventura provides wastewater collection and treatment for the City, McGrath State Beach Park, and the North Coast Communities (Ventura County Service Area 29) with a combined population of approximately 106,000. The system includes 375 miles of collection mains, 11 lift stations and the Ventura Water Reclamation Facility (VWRF), a tertiary treatment plant. The VWRF has a built capacity of treating 14 million gallons per day (MGD) and discharges a majority of its treated effluent to the adjacent Santa Clara River Estuary.

Wastewater facilities also include pump stations and pipelines for water reclamation. In 2008, the daily average volume of reclaimed treated effluent was 1.8 acre feet (0.6 MGD) and the maximum daily reuse volume was 5 acre feet (1.6 MGD). The beneficial reuse system provides irrigation for a local golf course and park as well as similar landscape areas. An integral part of the City's water conservation program, this reuse represents a reduction in demand on the Municipal and Industrial (M&I) water required of approximately 662 acre feet annually. Additionally, water diverted to other uses aids in the management of the effluent discharged to the estuary.

## **Ventura River Watershed Protection Plan and Development of Watershed Management Plan**

The Ventura River Watershed Protection and Supply Plan is a comprehensive plan aimed at integrating basin-wide issues such as water supply reliability, groundwater recharge, habitat restoration, water quality, and flood management. More than 25 local stakeholders have identified the development of this watershed plan as a top priority. This stakeholder group includes wholesale water providers, retail water suppliers, environmental organizations, groundwater management agencies, Cities, the County of Ventura, special districts, unincorporated communities, a homeowner's association, and community members. This project was partially funded with a Proposition 50 IRWM Implementation Grant. The Watershed Protection Plan Report was completed in 2012. Subsequently stakeholders in the Watershed have hired a watershed coordinator, funded by a Prop. 84 Watershed Coordinator grant and local match, who is preparing a watershed management plan, scheduled for completion in mid-2014. This plan will include a comprehensive watershed characterization, goals, and an action plan including projects for future implementation.

## **Santa Clara River Parkway Project**

The Santa Clara River Parkway is a project of the California State Coastal Conservancy, in collaboration with The Nature Conservancy's LA-Ventura Project, Friends of the Santa Clara River, private landowners, and local governments, to restore river and floodplain lands for habitat, flood protection and recreation.

## **Natural Flood Plain Management Project – The Nature Conservancy**

The Nature Conservancy (TNC) has begun implementation of the Natural Floodplain Protection Program (NFPP) to preserve a critical section of the remaining floodplain in the Santa Clara River

Watershed. This will be accomplished by establishing a Floodplain Conservation Zone (FCZ), where private property easements will be acquired as a means to prevent future development. The NFPP is targeting acquisition of 225 acres of easement within the 500-year floodplain of the Santa Clara River Watershed, which encompasses approximately 4,100 acres. TNC anticipates that, with acquisition of sufficient easements in key areas of the 500-year floodplain, the risk of development on the remaining lands will be substantially reduced, and therefore it will not be necessary to acquire easements for the entire floodplain in order to meet protection objectives. Portions of the 500-year floodplain have already been protected by TNC and through other conservation programs.



### The Nature Conservancy Conservation Plan for the Santa Clara River Watershed

One of Southern California’s last large free-flowing rivers, the 84-mile long Santa Clara River and associated riparian habitats are crucial to the survival of many sensitive species of wildlife, including the unarmored three-spine stickleback, the Southern California steelhead trout and the California red-legged frog. Other native species that rely on the river include the arroyo toad, southwestern pond turtle, bobcat and many species of migratory songbirds. The Nature Conservancy identified key areas along the Santa Clara River, at Ormond Beach and in the Santa Susana Mountains that must be safeguarded, interlinked, and connected to

already protected lands such as the Los Padres National Forest. The Conservancy is currently expanding the project area to encompass major tributaries of the Santa Clara River’s eastern headwaters. Conservancy scientists also conduct studies to guide the recovery of the endangered Southern California steelhead trout.

### Fillmore Integrated Water Recycling and Wetlands Project



This project is an integrated project to improve drinking water quality, reduce salt contamination from water softeners, improve wastewater treatment, and provide for distribution of recycled water. The project will construct a domestic water softening plant, a state-of-the-art wastewater treatment plant, and a recycled water distribution system; and initiate a ban on new or replacement home brine discharging water softeners. Partial funding for this project is coming from Proposition 50 IRWM Implementation Grant funds.

### Santa Clara River Watershed Management Plan

Encompassing more than 1600 square miles, the Santa Clara River Watershed is the largest in Southern California and is divided into two almost equal parts by the Los Angeles-Ventura County line. Since 1991, a group of more than 26 stakeholders has been developing the Santa Clara River Enhancement and Management Plan (SCREMP) for the 100-year floodplain. Recognizing the





continued pressure of urbanization in both Los Angeles and Ventura Counties that may affect the floodplain and environmental resources in the Santa Clara River Watershed, the Ventura County Watershed Protection District, Los Angeles County, and the Army Corps of Engineers agreed to cooperate in expanding the SCREMP to complete a feasibility study for the Santa Clara River Watershed Protection Plan.

Major components of the study include:

- Identifying flooding, erosion and sedimentation problems, and opportunities to improve water quality
- Analyzing potential benefits and costs of restoring riparian habitat, recreational opportunities, and a regional flood protection capital facility plan
- Determining impacts on historical and archaeological resources
- Promoting understanding of the planning process, garnering public input, and coordinating the planning effort with other stakeholders

### 2.3 Progress Towards Meeting IRWM Plan Goals and Objectives

The 2006 WVC IRWM Plan included 5 objectives:

1. Reduce dependence on imported water and protect, conserve and augment water supplies
2. Protect and improve water quality
3. Protect people, property and the environment from adverse flooding impacts
4. Protect and restore habitat and ecosystems in watersheds
5. Provide water-related recreational, public access and educational opportunities

Significant progress has been made towards addressing those objectives as a result of the projects and programs that have been implemented in the Region since 2006 (Table 2-1). Some data regarding the impact of some of those projects is highlighted in Figure 2-1 which features ten projects implemented with Implementation Grant Funds from Proposition 50.

During the past 7 years, more than 150 WVC stakeholder committees meetings have been held, representing thousands of hours of individual stakeholder contributions to the IRWM process. The focus of these meetings has been to receive project presentations and updates, develop integrated project concepts, track overall grant administration efforts, guide development of the 2014 update to the WVC IRWM Plan, conduct outreach to disadvantaged communities, select projects for implementation and address challenges facing the watersheds and the region.

**Figure 2-1**

Overall Outcomes from Implementation of Projects in Proposition 50

Pollutant Removal	Additional Water Supplies	Environmental Benefits	Flood Benefits	Climate Change Adaptation
10,000 tons per year salt removal  40 tons per year nitrates diverted from groundwater	10,320 acre-feet per year additional local water supply	Water made available for wetland restoration  13 acres of invasive species removal  0.33 acres wetland creation	Reduced floodway obstruction  Improved stormwater capture and recharge	Expanded regional water supply portfolio  Increased recycled water availability (drought resistant supply)  Improved stream conditions that avoid high water temperatures and low dissolved oxygen (counteracting negative climate change effects)

Source: Component report for Proposition 50 Implementation Grant Funded Projects