Work Plan

Creating Anew

As previously stated, the One Water One Watershed (OWOW) Plan, anticipated to be adopted in December 2010, will meet all the Department of Water Resources (DWR) Integrated Regional Water Management (IRWM) Plan Standards. SAWPA and its stakeholders have provided statewide leadership in integrated water resources planning since 1998, when SAWPA developed its first Integrated Watershed Plan (IWP) and the subsequent SAWPA three-volume IWP Plan developed in 2002. The new benchmarks from these efforts have become the template for the IRWM Planning program of the State of California DWR and State Board. With the OWOW Plan and SAWPA's previously approved and successful salt/nutrient management plan, SAWPA has also expanded its collaboration and stakeholder involvement to a broader and more effective level. Under the OWOW Plan, integrated regional water resource management approaches were defined that set the framework to address needs for years to come.

However, rather than working harder on the old model, we now need to create a new model so that we do not create the same problems that we are still working to resolve. Now is the time to institute the next level in integrated regional water management planning that brings this process to an even higher and more effective model. Under this workplan, SAWPA is proposing a system-wide approach that creates a new template for collaboration and water management. In the past, IRWM plans have focused on the water supply professional, often with a focus on water supply reliability and assuring that additional imported water could be brought to regions to address ever growing demands. However, in light of the ongoing water scarcity challenges facing the State and our watershed, a new planning approach must be established that creates the catalyst for change that could potentially apply to all regions across the State.

This approach is different in that all sectors of our community (water suppliers, water consumers, stormwater managers, parks and recreation providers, environmental stewards, developers, etc.) would be encouraged to adopt a new water ethic that focuses on living within our means and living in the environment that nature has given us. Often the problem in achieving this end is not data gathering, but rather the sharing of existing water information so that consumers of water can become the true stewards of water. That information is made available to all levels of the public to better understand where their water comes from, how it is used, what impacts we have on it and where it goes after it is used. New or expanded existing web-based tools would be developed to answer this need.

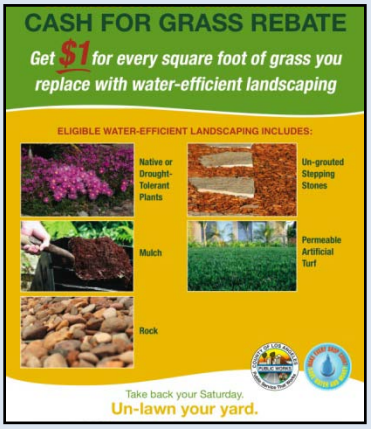
Creating anew, we will seek to expand collaboration across multiple jurisdictional and institutional boundaries so that natural hydrology is restored, aquifers are protected, landscapes are developed appropriate to the arid environment in which we reside and where people are not using water for waste transport downstream. The work proposed under this workplan seeks to address and recognize the upstream and downstream dynamic. A task force will be formed to collect surface flow data under different water management strategies and a MOU will be prepared so upstream and downstream interests may participate. Through these efforts, we could resolve conflicts that will arise when more and more stormwater and recycled water is captured and stored upstream as a result of low-impact development, recharge and reuse activities resulting in less water flowing downstream for their capture and reuse. Water quality challenges also must be addressed resulting from nonpoint source pollution carried by stormwater that is often captured and then recharged into our groundwater basins and aquifers for later use as a drinking water supply. Further, this plan creates effective outreach and liaisons with disadvantaged communities, environmental justice communities, Native American tribes, and land use planning sectors that will be key to implementing this new paradigm in integrated water resource planning.

OWOW Vision

A sustainable Santa Ana River Watershed is drought-proofed, salt balanced, and supports economic and environmental vitality in the year 2030

Highlights of New Model in IRWM Planning

SAWPA proposes to raise the bar so that all IRWM Plan Standards are met, all DWR IRWM program preferences are addressed, and the vision for the region is achieved. To accomplish this end, a workplan for the Santa Ana region has been defined that meets the new DWR IRWM Standards but then moves further to move the region forward to achieve the OWOW Plan goals and objectives. The new integrated water management plan for the Santa Ana Region will focus on the following areas.



Water Demand Reduction Strategies – Developing education and outreach actions that encourage implementation of tier-based allocated water conservation rates for not just some, but all water agencies in the watershed. This encourages programs such as “cash for grass” and indoor water efficient appliance rebates; outdoor irrigation efficiency measures, and implementation of new programs where landscaping and irrigation experts are hired to educate homeowners, homeowner associations, and businesses in methods and

provide incentives to retrofit high water use lawns and greenways into California Friendly and Water Smart landscaping. This education process would be supported by the development of new or expanded Web-based interactive tools that reach down not to just the water professional, but the general public, increasing awareness on the full water cycle and water quality impacts to quality of life issues. These tools would also allow the general public to continue to enjoy a high quality of life with less per capita water use.

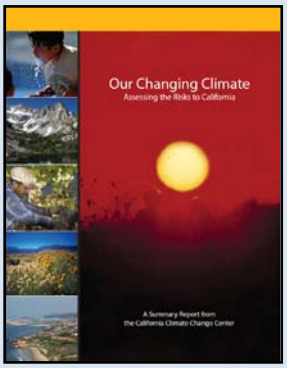
Water Quality Improvement and Awareness – Creating processes to assure that water sources used to replenish local supplies are safe and clean for public and environmental uses. With increased capture and collection of rainwater with subsequent recharge to local groundwater, assurance must be achieved that non-point source pollutants are addressed. Web-based tools would be developed or expanded upon so that the public has full access and an awareness of local water quality conditions of their lakes, streams, and beaches that they may be used for recreation throughout the region.

Targeted and Expanded Community Outreach – Conducting outreach actions that reach deeply into disadvantaged communities, environmental justice communities, and Native American Tribal communities to support their needs for clean safe reliable water supplies. Using trusted facilitators with native language skills that connect with communities rather than relying on surveys or mailers that are often poorly translated and fail to address water related needs of these communities.

Restore Natural Systems and Hydrology – Establishing systems where hydrology is restored to its natural paths while preserving environmental habitat, parks and recreation opportunities. Exploring opportunities where mutual benefit projects can be identified that capture, storage, and infiltrate rainwater with the assurances that the water is clean and safe to people and wildlife. Continuing the planning and removal of non-native, water-thirsty plants will restore the region's habitat and save water as well.

Expand Collaboration – Build upon past successful collaboration models to create bridges to key U.S. and State landholders in the region such as the U.S.D.A. Forest Service, U.S. Bureau of Land Management, March Air Reserve Base, California State Parks, and Natural Resources Conservation Service. Since a large percentage of the region and the headwaters are on Federal lands, collaboration with Federal entities is critical to the health of the watershed. Further, with a recent MOU with Reclamation, Federal funding support will be available to assist the planning process. Working with these federal partners, we will assure our mutual goals to address water supply and water

quality compliance issues while protecting and enhancing the land. SAWPA also will provide a user manual for its very successful multi-agency "Task Force" approach now cited by the 2009 California Little Hoover Commission as an effective collaboration approach that should be copied in all regions across the State.



Climate Change and Energy Impacts – Evaluate complete system impacts of climate change drilling down to the water infrastructure operation and building level to determine greenhouse gas emissions, the sea level rise impacts to Orange County coastal areas, new policies that can assist water managers in providing the flexibility to adapt management actions to respond to changing hydrologic conditions as well as the chain effects that climate change impacts have on other systems. For example, with less water conveyed to wastewater treatment plants based on water efficiency implementation, the impacts of more highly concentrated wastewater being conveyed to wastewater treatment plants that may result in possible increased treatment processing needs and energy usage will need to be considered. These energy impacts may also translate into other cost impacts associated with water recycling delivery and water quality compliance and protection.

System-Wide Approaches and Leadership – As a RWMG with minimal staff, SAWPA recognizes that one-on-one contact with each stakeholder to encourage water demand reduction is not efficient or effective with a region populated with over six million people and 65 water agencies. This method of outreach will not produce the change that is necessary to create a high functioning sustainable watershed. Consequently, new methods to spur change and to be the catalyst for new actions are needed on a watershed-wide, system-wide basis. New models must be developed that inspire behavior change to accomplish plan goals, create synergies, and develop inter-jurisdictional solutions. Using new system approaches developed under this plan for the Santa Ana region, a new template can then be shared with other RWMGs and be incorporated into their IRWM plans providing the leadership for their respective regions, similar to how LEED certification through the U.S. Green Building Council has caught on nationwide becoming now synonymous with "green" building. IRWM plans can and should become the guidepost for the new water ethic and meeting "sustainability" goals for regions across the State.

Compliance with Program Preferences

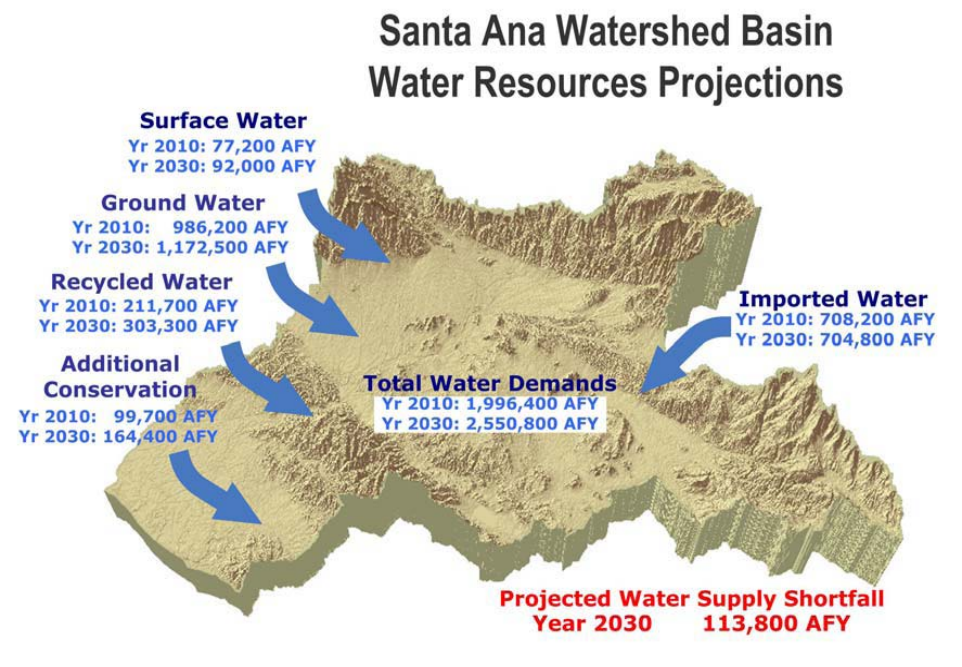
PRC §75026.(b) and CWC §10544 state that preference will be given to Proposals that meet program preferences. The Plan task(s) addressing these preferences follows each.

- Include regional projects or programs (CWC §10544) - **Plan Task 4.2**
- Effectively integrate water management programs and projects within a hydrologic region identified in the California Water Plan; the Regional Water Quality Control Board (RWQCB) region or subdivision; or other region or sub-region specifically identified by DWR - **Plan Task 4.3**
- Effectively resolve significant water-related conflicts within or between regions - **Plan Tasks 2.4, 2.5, 4.2.2**
- Contribute to attainment of one or more of the objectives of the CALFED Bay-Delta Program – Objectives 1) Water Quality - **Plan Task 4.3**; 2) Water Supply - **Plan Tasks 4.1 and 4.2**; and 3) Ecosystem Restoration - **Plan Task 4.7**
- Address critical water supply or water quality needs of disadvantaged communities within the region - **Plan Task 4.10**
- Effectively integrate water management with land use planning - **Plan Task 4.5**
- For eligible SWFM funding, projects which: a) are not receiving state funding for flood control or flood prevention projects pursuant to PRC §5096.824 or §75034 or b) provide multiple benefits, including, but not limited to, water quality improvements, ecosystem benefits, reduction of instream erosion and sedimentation, and groundwater recharge - **Plan Task 4.6**
- Address statewide priorities

    1. Drought Preparedness - **Plan Tasks 4.1, 4.2, 4.4**
    2. Use and Reuse Water More Efficiently - **Plan Tasks 4.1 and 4.6**
    3. Climate Change Response Actions - **Plan Task 4.9**
    4. Expand Environmental Stewardship - **Plan Task 4.7**
    5. Practice Integrated Flood Management - **Plan Task 4.6**
    6. Protect Surface Water and Groundwater Quality - **Plan Task 4.3**
    7. Improve Tribal Water and Natural Resources - **Plan Task 4.10**
    8. Ensure Equitable Distribution of Benefits - **Plan Task 5.2**

Why is a New IRWM Template Necessary?

Currently, the Santa Ana River Watershed Basin is home to over six million people within an area of 2,650 square miles. Based on growth and population projections for our region, strong concern continues to ensure that there will be adequate water supplies to meet future water demands in our watershed, particularly in light of climate change and persistent drought conditions.



Assuring that adequate water supply development and water infrastructure are available to meet future water demands is essential for the State and Nation.

Based on our current OWOW Plan, early projections of water supply availability to meet increasing water demands indicate that a significant shortfall will occur amounting to 114,000 AFY by the Year 2030. This shortfall may be even more challenging if water use efficiency increases of 65% is not achieved within the next 20 years. These water demands are anticipated to increase primarily from municipal and industrial needs, as well as environmental needs for associated water quality compliance. A strategy of water demand reduction must be instituted to assure sustainability of the region.

As of 2008, over 45% of the State's growth in the commercial, industrial, and agricultural sectors arose from the Santa Ana Watershed Basin.

The following workplan defines tasks that will create this new plan and process for the new SAWPA IRWM Region that implements a watershed and systems approach that leads first with a demand reduction strategy, addresses the need for a fully functional hydrology, and sustainable environment that meets water quality requirements and develops a reliable water supply to deal with these growing crises. In this fashion, a truly innovative planning process can be exercised to explore new avenues of watershed system thinking that promotes collaboration across jurisdictional boundaries, and creates a new vision or water ethic rather than only solving localized problems.

Task 1.0: Study Management and Data Gathering

1.1 Coordinate and manage all planning efforts including coordination of contract administration, invoicing, preparation of quarterly status reports, final report, conference calls, and meetings as necessary for the completion of all tasks defined herein. Key SAWPA staff will conduct a kick-off meeting with DWR staff and hold periodic status meetings with DWR staff to assure full coordination of activities and task completion status. Issue and administer consultant contracts for specialized tasks, as necessary, though much of the core of the strategic management development tasks defined herein will be supported in part by volunteers and Pillars (workgroups) under a collaborative support approach developed under the previously adopted OWOW Plan. Review and coordinate with all Pillars and consultant work, project budget, schedule and reports.

1.2 Review, collect and incorporate all new and recent data, reports, models and studies necessary to the completion of the new Plan beyond what was defined in the OWOW Plan. Gather and use all relevant information needed for integration of water resource management strategies and breakdown any silos of data and information among them. Prepare technical analysis tables reflecting how cited data was used including key results and derived information, methods of analysis, use in the Plan and references and/or sources. Manage all data in effective databases for easy access for stakeholders and interested parties.

Deliverables: Subtasks 1.1 and 1.2 containing quarterly status reports, a final report, a compilation of data, reports, models and studies citing key results and derived information, use in the Plan, references/sources and data management.

Task 2.0: Governance, Outreach, Integration and Systems Approach

2.1 Identify further improvements that are or can be made to the existing OWOW Plan governance structure (Steering Committee and SAWPA Commission) for the new IRWM Plan beyond what was defined in the OWOW Plan and investigate any changes to the OWOW governance to promote internal planning and coordination or to facilitate internal changes within the land use planning community and implement appropriate changes to achieve the facilitation.

2.2 Identify further improvements that are or can be made to the existing Pillar (workgroups) by possibly combining Pillars to maximize water resource management integration and promoting more involvement of the public in their deliberative process. Describe additional methods in which an individual may serve on a Pillar, for what duration, and how the public can better interact with the Pillars beyond what was defined in the OWOW Plan. Utilize the results from Task 2.3.1 to determine how Pillar strategies can be further integrated to address implementation project gaps necessary to optimize and fully support a functioning

hydrologic region.

2.3 Identify the specific SAWPA activities under SAWPA's administrative and RWMG role for moving the OWOW Plan into implementation. This task will describe SAWPA staff's activities in development and implementation of the new plan including plan improvements, revisions to project selection process, and implementation of plan functions.

2.3.1 Implement systems approach to lead behavioral change in the watershed to implement water use efficiency and demand reduction practices and motivate development of new multi-jurisdiction, multi-benefit projects that address watershed needs that were not addressed in the previous OWOW Call for Projects. In Feb. 2010, under the previous OWOW Plan development, SAWPA assembled a "Dream Team" of high level water resource visionaries to brainstorm new cross jurisdictional proposals to achieve a shared vision of multi-benefit integrated multipurpose highly functioning Santa Ana River Watershed. The OWOW Dream Team included the following experts:

Joe Grindstaff, CALFED Director
Wyatt Troxel, Past IEUA Director
Mark Wildermuth, President Wildermuth Environmental Inc.
Gerard Thibeault, Past Executive Director, CA Regional Water Quality Control Board
Tim Moore, Risk Sciences
Jerry King, Vice President , Psomas
Larry McKenney, Vice President, RBF
Don Schroeder, Vice President, CDM
Steve PonTell, Santa Ana Regional Board member
Pete Dangermond, The Dangermond Group
Jeff Mosher, Exec. Director, National Water Research Institute, and Dream Team Chair

Using the conceptual proposals developed by the February 2010 Dream Team workshop, evaluate strategic actions reflecting the systems approach that can be implemented within the region to address project implementation gaps of the OWOW Plan. Research processes such as sponsorship of key agencies in the watershed that may spur large scale actions, leverage available resources and reflect major institutional or behavioral changes.

2.4 Create procedures, processes, structures and tools that further promote access to and collaboration with people and agencies' diverse views beyond what was defined in the OWOW Plan. Update stakeholder lists for the region to allow more effective direct communication. Outreach and build linkages to local universities/colleges and the business community in support of regional sustainability and integration approaches addressing water. Assist with innovative approaches to attain mutual sustainable goals among these communities for water supply reliability and water demand reduction.

Develop and utilize new outreach tools to expand and assist the general public in taking a more active part in the watershed planning process such as new or expanded off-the-shelf web-based/GIS based interactive tools, forums and virtual meetings. Provide new methods

for the public to gain access to plan data, plan governance and planning processes for information and how they can provide input. Describe new processes to utilize an inclusive and collaborative, multi-stakeholder process that provides mechanisms that address water management issues and develop integrated, multi-benefit, regional solutions that incorporate environmental stewardship to implement future watershed plans.

Create a task force user manual describing the very successful multi-agency SAWPA "Task Force" approach now cited by the January 2009 California Little Hoover Commission and the local Santa Ana Regional Water Quality Control Board as an effective collaboration approach that should be copied for developing solutions in all regions across the State.

2.4.1 Establish and/or enhance collaboration with key U.S. and State landholders in the region such as the U.S.D.A. Forest Service, U.S. Bureau of Land Management, March Air Reserve Base, State Parks, and Natural Resources Conservation Service. Since a large percentage of the region and the headwaters are on federal lands, collaboration with federal entities is critical to the health of the watershed. Further, with a recent MOU with Reclamation, federal funding support will be available to assist the planning process. Working with these Federal partners, assist mutual efforts to address water supply, and water quality compliance issues.

2.5 Create processes, structures and procedures that expand integration and explain how these are reflected in other plan sections beyond what was defined in the OWOW Plan. Assure that stakeholder/institutional, resource and project implementation are conducted in an integrated fashion. Establish any new legal judgments, adjudications, and/or agreements in the watershed that may assist implementation of Pillar recommendations. Describe further collaborative efforts that could be conducted in the watershed to promote integration, coordination and collaboration and with neighboring regions and overlapping regions. Evaluate and discuss any joint project opportunities and/or conflicts.

2.6 Identify new watershed governance models that address inefficiencies in the interplay between different authorities and roles of Federal, State, local and tribal governments in management water resources as defined in the recently published *Charting New Waters: A Call to Action to Address U.S. Freshwater Challenges, prepared by the Johnson Foundation Freshwater Summit, September 2010*. This will include development of an integrated characterization of the water quality and quantity challenges facing the region to create a platform for the examination of water resource governance and conducting an assessment of current jurisdictional frameworks governing water quality and quantity management across geographic scales of governance, and make recommendations about how to streamline intergovernmental interactions. Opportunities will be explored to expand the application of successful cross jurisdictional governance models that can be adapted to different authorities, create opportunities for local level leadership and innovation, and establish inter-jurisdictional dispute resolution mechanisms.

Deliverables: Report on Tasks 2.1-2.6 regarding plan governance; the governance structure and processes; work development groups (Pillars); SAWPA's role as plan administrator; outreach procedures, processes, structure and tools; and integration, coordination and collaboration mechanisms, and new governance models.

Task 3.0: Watershed Setting

3.1 Review any new data on existing and/or projected surface and groundwater resources, physical setting, land use, biological resources, population, and socio-economics beyond what was defined in the OWOW Plan. Update the data as appropriate since the previous OWOW Plan development.

3.2 Update current and projected watershed basin population values and socio-economic factors of the watershed beyond what was defined in the OWOW Plan. Source of much of these updates will be from the 2010 Urban Water Management Plans that must be submitted to DWR in mid-2011.

3.3 Define any changes to internal boundaries beyond what was defined in the OWOW Plan such as recent municipalities, service areas of individual water, wastewater, flood control districts, and land use agencies; groundwater basins, county and other political boundaries. Describe and update the natural and anthropogenic components of the region's water system including wastewater, reclaimed water, desalination, floodwater, and natural water systems including all recent implementation projects.

Deliverables: Report that incorporates all Tasks 3.1 thru 3.3 under watershed setting for the basin study effort.

Task 4.0: Water Resource Management Strategies and Integration

4.1 Identify implementation actions that the Water Use Efficiency (resource management strategy defined in the OWOW Plan) Pillar will conduct in its new role as the primary means to accomplish the water demand reduction necessary for the region. Develop new practices and improvements that will be implemented achieve goals for the watershed. Examine programs for water sustainability that will encourage all water agencies within the region to adopt tiered water conservation rate structures if not implemented already. Encourage the implementation of water efficient appliance incentives and rebate programs. Encourage implementation of "cash for grass" programs, efficient irrigation systems and smart controllers, and new programs where landscaping and irrigation experts are hired to counsel and train homeowners, home owner associations, and businesses to retrofit existing high water use lawns and greenways into CA Friendly and Water Smart landscaping and provide incentives where available. Develop strategies to improve water use efficiency measures to support agricultural and urban systems.

4.1.1 Review and evaluate all available 2010 Urban Water Management Plans for water use efficiency/water conservation goals, current and planned implementation actions. Determine gaps between water supply goals for region and cumulative impact of planned water use efficiency. Develop plans to address the gaps and describe.

4.2 Identify implementation actions by the Water Demands and Supply (resource management strategy defined in the OWOW Plan) Pillar and integration with other Pillars that reflect strategies under the previous OWOW Plan. Using recent 2010 Urban Water Management Plans and recent Metropolitan Water District of Southern California Integrated Resource Plan, determine the key challenges to supplying water for multiple uses for which it is needed (energy and food production, ecosystem health, industry, municipal use, recreation, etc.) reflecting water supply reliability, current conditions, imported water dependence, available water infrastructure, magnitude and frequency of water shortages, risks of imbalances in supply and demand, reliability goals, and management strategies to reduce demand, optimize imported water, develop new supply sources, increase storage, and address emergency measures through the planning horizon of 2030.

4.2.1 Establish a new task force among upper watershed and lower watershed entities for conflict resolution regarding water resource use and reuse in the watershed. The task force will prepare an updated model of future Santa Ana River flows from the upper Santa Ana River Watershed that reach the Orange County boundary (the primary recharge water supply for the Orange County groundwater basin) that considers factors such as projected recycling, conservation, home foreclosures, storm runoff, river rising and losing reaches and other forms of reuse in the upper watershed. Provide projections in 5-year increments through the OWOW planning horizon, year 2030.

4.2.2 Prepare a new agreement framework among parties involved in the upper watershed/lower watershed dynamics incorporating results of the previous task Santa Ana River flow projection results, projected low impact development (LID) and MS4 implementation practices, and projected water recycling quantities to resolve conflicts.

4.3 Identify implementation activities of the Water Quality Improvement Pillar (resource management strategy defined in the OWOW Plan)and through integration with other Pillars for water quality improvements for surface water, groundwater, imported water and ocean water in and near the watershed that implement past recommended strategies under the OWOW Plan. Expand outreach with the Santa Ana Regional Board staff. Determine Regional Water Quality Control Board Basin Plan and California Water Plan water quality project preferences and integrate with other regional needs to define integrated management strategies that meet water quality and water supply goals. Incorporate recent evaluation of watershed salinity balance, salinity management needs, brine export conditions and needs,

brine export facilities and management approaches. Determine suitable salt disposal options to remove salt from the watershed including further investigation of brine flow to the Salton Sea.

4.3.1 Investigate and support ongoing evaluations of the impacts of existing and future stormwater flows and other discharges to the ocean coastal waters adjoining the region and the Upper Newport Bay area to determine what additional strategic actions can be developed to address the water quality concerns. Utilize support services of non-profit coastal research institutes such as Southern California Coastal Water Research Project (SCCWRP) to assist. Identify conceptual multi-beneficial projects to address these needs that may be advanced and supported for implementation.

4.3.2 Conduct identification of gaps in data and monitoring capacity and recommendations for filling them. Develop or expand web-based/GIS based interactive tools that track TMDL monitoring and other water quality monitoring programs to support multi-agency task forces, regulatory conformance and provides full access and an awareness by the general public of local water quality conditions of their lakes, streams, and beaches that they may use for recreation.

Identify implementation actions under Water Recycling (resource management strategy defined in the OWOW Plan) Pillar and integration with other Pillars to implement strategies for water recycling identified in the OWOW Plan examine and update current conditions and facilities, POTW capacities and recycled water use, current management strategies including methods to increase direct reuse, recycled water recharge of groundwater, recycled water use and nexus with resulting energy savings. Determine impacts of LID and water use efficiency practices which may convey less flow but more highly concentrated wastewater to wastewater treatment plants that may need increased treatment processing and increase energy needs and costs. These energy impacts may also translate to cost impacts associated with water recycling and water quality compliance and protection.

4.4 Identify implementation actions to conduct collaboration between water and land use planning (resource management strategy defined in the OWOW Plan) communities as prepared by the water and land use Pillar and their integration with other Pillars. Prepare updates to conditions of land use and resource management, implementation measures to support water savings through land use practices including low impact development, implementation of Ahwahnee Water Principles for Resource Efficient Land Use, new green building programs and onsite and offsite conservation land use practices. Determine new opportunities to improve collaboration between water managers and land use decision makers and interaction with the land use community. Determine what forums, policies and projects could be instituted to improve water management efforts with the land use

community. Describe how improved interaction between water managers and land use planners could advance the Plan implementation and the planning process.

4.5 Identify implementation actions to address strategies for flood risk and stormwater management as defined by the Flood Risk Management (resource management strategy defined in the OWOW Plan) Pillar and integration with the other Pillars. Define any new opportunities to address flood protection and integrate storm water management and water conservation with reduction of risk to property from flood events. Explore feasibility of automated rainwater harvesting systems and networks that could provide water conservation and flood control, as well as water quality benefits. Examine the framework and potential development of regional mitigation banks.

4.5.1 Support efforts to conduct increased outreach with all three flood control districts in the region: 1) Orange County; 2) San Bernardino County; and 3) Riverside County to coordinate water supply and groundwater recharge needs, and explore opportunities for water suppliers to work with the MS4 agencies to address stormwater LID and best management practices (BMP) as defined under the County MS4 Permits.

4.5.2 Support county flood control districts and MS4 co-permittees with development of prioritization methodologies and modeling tools that will assist counties to identify priority areas for BMP and LID projects (i.e., areas of current need, due to loading and/or sensitivity of receiving waters), identify new opportunities for multi-use, multi-benefit projects, identify available technologies to implement, assist stakeholders involved and determine maximum return on investment to implement. Utilize existing or support further development of GIS based tools to systematically prioritize BMP and LID projects to optimize pollutant reductions while maximizing groundwater recharge opportunities.

4.5.3 Support county flood control districts and MS4 co-permittees in development of Watershed Action Plans that address watershed and subwatershed scale water quality impacts and system-wide evaluation to identify opportunities to address urban total maximum daily loads (TMDLs), wasteload allocations, stream system vulnerability to hydromodification from urban runoff, cumulative impacts of development on vulnerable streams, preservation of beneficial uses of streams and protection of water resources including groundwater recharge areas.

4.5.4 Support county flood control districts and MS4 co-permittees in refinement and further development of Watershed Geodatabase tools to support water resource planning, stormwater cleanup and groundwater recharge needs.

4.6 Identify implementation actions for environment and habitat enhancement water nexus to meet the strategies identified by the Environment and Habitat Enhancement (resource management strategy defined in the OWOW Plan) Pillar and integration with the other Pillars in the watershed. Identify areas where additional removal of high water-use invasive plants (e.g. *Arundo donax*) can increase surface flows. Determine if new opportunities exist to build upon previously identified legal and regulatory framework for environmental and habitat enhancement projects, existing regional management plans, current issues, challenges, and approaches.

4.7 Identify implementation actions for the water nexus with parks, recreation and open space as identified by the Parks, Recreation and Open Space (resource management strategy defined in the OWOW Plan) Pillar and integration with the other Pillars in the watershed. Identify new measures to improve strategies to improve water use and capture stormflow in these areas.

4.8 Identify implementation actions necessary for climate change adaptation and mitigation through the Climate Change (resource management strategy defined in the OWOW Plan) Pillar and integration with other Pillars. Build upon past modeling to examine current conditions, climate change projections, methodology used to determine trends, implications of climate change for the watershed and management strategies for dealing with climate change.

4.8.1 Review existing climate change model and analysis performed for the Santa Ana River Watershed and compare to other forecasting models available based on the latest climate change modeling research. Determine strengths and weaknesses in each to adapt climate change models to a regional scale. Select model to perform regional analysis or reconfirm results of past regional model.

4.8.2 Use existing or new climate change model and other resources to evaluate more in depth climate change impacts beyond what was defined in the OWOW Plan in the amount, intensity, timing, quality and variability of runoff, recharge, and imported water deliveries to the watershed resulting from climate change effects. Determine impacts of sea level rise to Orange County water infrastructure, including impacts to groundwater basins. This evaluation will also include consideration of increasing water use efficiency, integrated flood management, and enhancement and sustaining ecosystems, and will include state-of-the-art projections of the impacts on future water supply and demand on a basin-wide scale.

4.9.3 Evaluate and conduct existing and proposed GHG emission sources of all components related to the water industry beyond what was defined in the OWOW Plan including operation of construction equipment, passenger vehicle trips during construction and operation, transportation of construction materials and equipment,

transportation of material inputs for operational and maintenance, transportation of material outputs or production, generation of electricity used for operation of projects, and waste generation and disposal materials during construction and operation. Develop uniform project reporting tools of GHG for the region.

4.9.4 Create list of methods to help mitigate climate change impacts beyond what was defined in the OWOW Plan to further reducing energy consumption and comply with the State of California AB 32 requirements for all water-related activities in the watershed, and ultimately reducing green house gas emissions. Review and apply new DWR Climate Change Handbook practices to assure that OWOW Plan reflects a region-specific analysis addressing plan objectives, resource management strategies, project review process, relation to local water planning, relation to local land use planning and coordination. Encourage local government and water management agencies review relevant policies to reduce the risks associated with climate change. Consider a list of implementation action items to reduce greenhouse gas emissions by water agency including establishing GHG emission counselors for training, transition of vehicle fleets to hybrid and electric vehicles and incentive programs for GHG reductions.

4.9.5 Create decision support tools for managing climate-related changes to water quality and quantity beyond what was defined in the OWOW Plan. Incorporate the latest science, engineering technology, climate models and innovative approaches to water management and climate change impacts. Implement risk-based approaches that anticipate the range of potential change and employ flexible and adaptive management strategies that allow decision makers to integrate new knowledge and respond to disruptions or risks as they materialize over time.

4.10 Identify specific implementation tasks to support water supply and water quality needs for environmental justice communities (EJ), disadvantaged communities (DACs), and Native American Tribes (resource management strategy defined in the OWOW Plan) needs in the region as identified by the Environmental Justice Pillar and integration with other Pillars.

4.10.1 Conduct outreach to Native American Tribes, disadvantaged communities (DACs) and environmental justice communities in the following regions: 1) Enchanted Heights area near the City of Perris; 2) Beaumont - Cherry Valley area near the City of Beaumont; and 3) Quail Valley near the City of Menifee which are all in need of wastewater collection systems to address septic system overflows and contamination. Identify other DACs, EJ communities and Native American Tribe communities in the region that may be affected by water quality issues such as perchlorate, TCE, and PCE contamination in the groundwater supplies serving these communities. Conduct outreach efforts using a Spanish/Native American speaking facilitator to overcome language barriers and those of lower education levels in these communities. Historically, water agency's attempts at "public awareness" place a heavy emphasis on websites, electronic newsletters, and occasional

newsletters – in English. Merely translating materials into Spanish does not appear to be the most effective means of communication. Tools of communication must be tailored to suit the needs of DACs. These will include modes of communication that would go beyond merely translating collateral materials in Spanish and doing literature drops. Past OWOW efforts have shown that most people in DACs rely on word-of-mouth methods of communication within the community. As part of developing a more effective communications strategy, this channel of communication will be expanded to integrate even more DACs and EJ communities. This task proposes outreach to 8 DACs, EJ communities and Tribal communities that will include a series of community meetings to be held in English, Spanish, and other languages as appropriate that encourage communication, learning of issues, and the exploring and identifying of approaches in dealing with water resource issues facing the communities.

4.10.2 Assist the formation of or support of existing coalitions or organizations established to represent the interests of DACs and EJ communities modeled after the existing Quail Valley Environmental Coalition that supports the Severely Disadvantaged Community of Quail Valley in the planning process. The Quail Valley Environmental Coalition is well regarded by the community of Quail Valley as an advocate for them with regards to Environmental Justice.

4.10.3 Assist with development of an established liaison with Native American Tribes located within the SAWPA IRWM Region. Work with the Tribal communities on potential multi-benefit multi-jurisdictional water resource projects that can assist the Tribal communities and region in meeting water resource goals. Assure that all California Native American Tribe Notification requirements are met for any projects that are contemplated within the region.

Deliverables: Report that includes subtasks 4.1 thru 4.10 covering all aspects of water supply and demands; water quality; water recycling; water use efficiency; flood risk management; park, recreation and open space; water and land use, environment and habitat enhancement; climate change and environmental justice.

Task 5.0: Funding

5.1 Determine mechanisms by which stakeholders can financially participate in and support continuance of the IRWM planning process. Define additional e-sources of funding which can be utilized for future OWOW Plan updates, focused feasibility studies, and development support functions that can assist movement towards implementation. Define the certainty of funding and the longevity of the funding sources. Examine alternative approaches to financing the Plan that represents consistent, secure, long-term sources of funding.

5.2 Determine funding sources that have assisted past OWOW Plan implementation for the Santa Ana River Watershed beyond what was defined in the OWOW Plan. Examine potential Federal, State and local funding options. Describe the potential funding sources for the project and programs to implement the IRWM Plan. Define the certainty of funding and the longevity of the funding sources. Examine alternative approaches to financing the implementation projects and programs described in the IRWM Plan that represent consistent, secure, long-term sources of funding. Determine the financial resource capacity available to implement and sustain solutions to key water resource challenges. Also identify cost savings from implementing multi-benefit projects.

Deliverables: Report that includes subtasks 5.1 and 5.2 describing updated funding approaches to support the projects, program and plan development.

Task 6.0: Data Management and Plan Performance/Monitoring

6.1 Establish state-of-the-art data management system and activities that takes the next step beyond what was defined in the OWOW Plan and support efficient use of available data, stakeholder access to data and to ensure data generated by the OWOW Plan implementation can be integrated into established databases.

6.2 Establish state-of-the-art system for performance measure and monitoring to document progress toward meeting plan objectives takes the next step beyond what was defined in the OWOW Plan. This will include explanation of responsible parties of implementation evaluation, frequency of evaluation, processes from tracking performance and how findings from monitoring efforts will be used to improve the Plan governance ability to implement future projects in the OWOW Plan. Establish an annual report card similar to ASCE Infrastructure Report Card on key plan performance factors to allow stakeholders to see progress being made in achieving IRWM Plan goals, objectives, and targets. Determine feasibility of a rating system for "regional sustainability" effectiveness similar to U.S. Green Building Council's LEED certification for green building based on a decentralized approach with guiding principles only.

Deliverables: Report that includes subtasks 6. 1 and 6.2 that describes the OWOW Plan update data management and plan performance and monitoring needs.

Task 7.0: Plan Strategies, Project Review and Implementation

7.1 Identify expanded approach to process for evaluating and comparing benefits that would accrue for the watershed through integration of water resource management strategies described under previous tasks that would create more integrated multi-use approaches and solutions.

7.2 Identify new and more recent regional goals for integrated water resource management reflecting DWR program preferences and California Water Plan Update 2009. Define goals, objectives and strategies based on previous tasks to achieve watershed sustainability for the future. Update and revise as necessary, specific targets to achieve understanding that some may be quantitative and some may be qualitative in nature.

7.3 Identify approaches to conduct review of projects that will meet objectives and goals of the IRWM Plan. This approach will include any new procedures for submitting projects for inclusion in the IRWM Plan, revisions to the Call for Project data entry form, new procedures to review projects to implement IRWM Plan, any revisions to the prioritization process and procedures for communicating lists of prioritized projects to the public necessary to ensure equitable distribution of benefits and help meet the needs of the region as a whole.

Deliverables: Report that includes Tasks 7.1 through 7.3 containing benefit evaluation; recent regional goals; modify and update project selection approach.

Task 8.0: Draft and Final OWOW Updated Plan Report

8.1 Compile work performed under all previous tasks and prepare a draft report. Assure that report meets all DWR IRWM Plan Standards. Provide link to report to all stakeholders on the OWOW contact database and receive comments using outreach tools such as the existing OWOW Forum Web tool and solicit comments. Conduct further outreach and coordination meetings to assure that the Plan is meeting expectations and resolves conflicts. Share draft plan with OWOW governance to receive any other final comments. Conduct appropriate noticing procedures of draft report issuance in accordance with the California Water Code.

8.2 Incorporate all comments received under Task 8.1 into Final OWOW Plan report. Prepare and implement notices of pending adoption procedures of Final OWOW Plan report.

Deliverables: Report that includes Tasks 8.1 and 8.2 containing the draft and final plan.

Task 9.0: CEQA Compliance and Plan Adoption

9.1 Review California Environmental Quality Act (CEQA) obligations and requirements for the updated OWOW Plan Final Report. Prepare a Notice of Exemption (NOE) for the OWOW Plan Final Report with accompanying statements that any projects envisioned in the Plan are subject to CEQA review as they are implemented. Conduct appropriate public hearing for the NOE as administered by the SAWPA Commission in conformance with CEQA requirements. Conduct appropriate public hearings in accordance with California Water Code for adoption process. Present Final OWOW Plan report to SAWPA Governance for approval and adoption. Encourage adoption of the final Plan by stakeholder agencies and organizations who participated in OWOW Plan development.

Deliverables: Final CEQA document and Adoption Resolution.