Chapter 1 One Water One Watershed

SAWPA

The Santa Ana Watershed Project Authority, or SAWPA, is a Joint Powers Authority, focusing on water supply and water quality. Its stated mission is to develop and maintain regional plans, programs, and projects that will protect the Santa Ana River basin water resources to maximize beneficial uses within the watershed in an economically and environmentally responsible manner. First formed in 1968 as a planning agency, SAWPA was reformed in 1972 with a mission to plan and build facilities to protect the water quality of the Santa Ana River Watershed, or simply, the Watershed. The agreements formalizing the current agency were signed in 1974 and went into effect in 1975.

The Watershed is home to over five million people in southern California, and the region's population is projected to grow to almost ten million people within the next 50 years. This growth certainly will accelerate the pressures already on the region's limited water resources. SAWPA has supported its five member water agencies and various stakeholder groups throughout the watershed including the Santa Ana Regional Water Quality Control Board (Regional Board) with developing and implementing plans to ensure that there is sufficient clean water to support all the water needs of the watershed into the future.

SAWPA Member Agencies

SAWPA carries out functions useful to its five member agencies: Eastern Municipal Water District (EMWD), Inland Empire Utilities Agency (IEUA), Orange County Water District (OCWD), San Bernardino Valley Municipal Water District (SBVMWD), and Western Municipal Water District (WMWD). The jurisdiction of SAWPA and its member agencies spans approximately 2,800 square miles of the Santa Ana Watershed encompassing much of Orange County, a sliver of Los Angeles County, and the major population centers of western Riverside and southwestern San Bernardino Counties. Each of these agencies plans and executes long-term projects and management programs of their own, but it is primarily agencies working through SAWPA that provide the vehicle for effective and concerted planning efforts on a regional basis.

Eastern Municipal Water District

Eastern Municipal Water District is a retail water agency servicing an area of approximately 555 square miles in western Riverside County. EMWD serves a population of approximately 675,000 in six incorporated cities and unincorporated portions of western Riverside County. In addition to its role as a retail agency, it also provides wholesale water to the sub-agencies Lake Hemet Municipal Water District, City of Hemet, City of San Jacinto, City of Perris, Nuevo Water Company, Elsinore Valley Municipal Water District (EVMWD), and Rancho California Water District.

As a member agency of the Metropolitan Water District of Southern California (MWD), EMWD gained a supply of imported water from the Colorado River Aqueduct (CRA) and ultimately, water from northern California through the State Water Project (SWP), which transports water from Northern California via the California Aqueduct. EMWD's initial mission was to deliver imported water to supplement local groundwater supplies. Over time, EMWD's role changed as additional agency responsibilities were added, including groundwater production and resource management, wastewater collection and treatment, and finally regional water recycling.

Inland Empire Utilities Agency

Inland Empire Utilities Agency's service area covers about 242 square miles in the southwestern corner of San Bernardino County, and serves a population of approximately 800,000. IEUA provides regional wastewater service and imported water deliveries to eight contracting agencies. These include the City of Chino, City of Chino Hills, Cucamonga Valley Water District (CVWD), City of Fontana, City of Montclair, City of Ontario, City of Upland, and Monte Vista Water District.

As a member agency of MWD, IEUA provides supplemental water, as well as regional wastewater treatment for both domestic and industrial clients, and energy recovery/production facilities. In addition, the Agency has become a recycled water purveyor, biosolids/fertilizer treatment provider, and continues to focus on water supply salt management for the purpose of protecting the regions vital groundwater supplies.

Orange County Water District

Orange County Water District's service area covers more than 350 square miles and the Orange County Groundwater Basin. The basin provides a water supply to more than 20 cities and water agencies, serving over 2.3 million people. OCWD owns 1,600 acres in and near the Santa Ana River (SAR) in Anaheim and Orange, which it uses to capture flows and recharge the groundwater basin. OCWD also owns 2,400 acres above Prado Dam, which it uses for water conservation and water quality improvement.

OCWD's mission is to manage and protect the Orange County Groundwater Basin in northern and central Orange County. The groundwater basin supplies approximately two-thirds of the water used by over two million residents in this District's service area. The balance is imported from the Colorado River and from Northern California through the Sacramento/San Joaquin Delta SWP by MWD.

San Bernardino Valley Municipal Water District

San Bernardino Valley Municipal Water District's service area covers about 325 square miles, primarily in southwestern San Bernardino County with a very small portion of its service area in Riverside County. The area within SBVMWD includes a population of around 600,000. SBVMWD spans the eastern two-thirds of the San Bernardino Valley, the Crafton Hills, a portion of the Yucaipa Valley, and includes the cities and communities of San Bernardino, Colton, Loma Linda, Redlands, Rialto, Bloomington, Highland, Grand Terrace, and Yucaipa. SBVMWD's mission is to import water into its service area through participation in the California SWP. SBVMWD also is charged with managing groundwater and surface water within its boundaries through various court judgments.

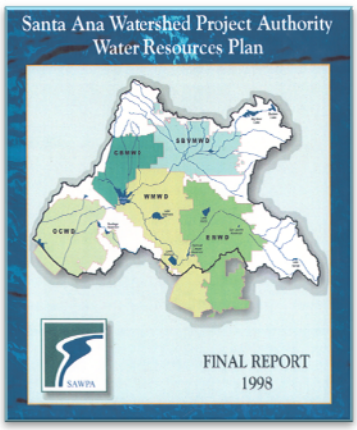
Western Municipal Water District

Western Municipal Water District's service area covers a 527 square mile area of western Riverside County with a population of about 825,000 people. WMWD serves more than 24,000 retail and eight wholesale customers with water from both the Colorado River and the SWP. As a member agency of MWD, WMWD provides supplemental water to the cities of Corona, Norco, and Riverside and the water agencies of Box Springs, Lee Lake, Elsinore Valley, and Rancho California, as well as serving customers in the unincorporated areas of El Sobrante, Eagle Valley, Temescal Creek, Woodcrest, Lake Mathews, and March Air Reserve Base. WMWD also operates and maintains domestic and industrial wastewater collection and conveyance systems for retail and contract services customers in Lake Hills, March Air Reserve Base, Home Gardens, Corona, and Norco.

About one-fifth of the water that WMWD purchases from the MWD comes from the CRA and about four-fifths from the SWP, which transports water from Northern California via the California Aqueduct. WMWD currently imports a small quantity of water from the San Bernardino basin and intends to increase these imports with the implementation of the Riverside-Corona Feeder project. WMWD also has several wells for pumping in its Murrieta Division.

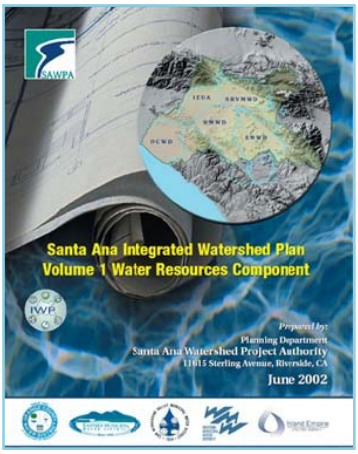
History of Santa Ana River Watershed Planning

Since its formation, SAWPA has been on the forefront of water resource planning for the region. Formed originally as a regional planning agency in 1967, SAWPA undertook the first water quality management program study for the Watershed. These early planning roots provided the important water quality data and analysis for the development of the first Regional Board Basin Plan. Since that time, SAWPA has worked closely with the Regional Board in all Water Quality Basin Plan Updates and watershed planning efforts.



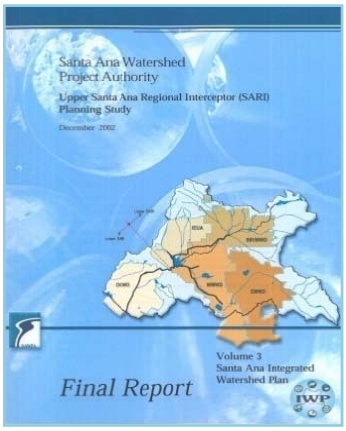
The 1998 SAWPA Water Resources Plan was one of the first watershed-wide water resource plans undertaken by SAWPA to optimize all available water resources in the watershed in an integrated fashion. This plan was initiated after MWD had kicked off their first Integrated Resource Plan in 1995. Because only three of the five SAWPA member agencies were MWD member agencies, the SAWPA Commission directed staff to prepare a similar water resource plan for the Watershed that would examine all available water resource development opportunities and assets within the Watershed. With one of the SAWPA member agencies, Valley District, also serving as an additional importing water agency and SWP Contractor within the Watershed besides MWD, new water resource development projects were identified. This plan was prepared entirely by SAWPA Planning staff.

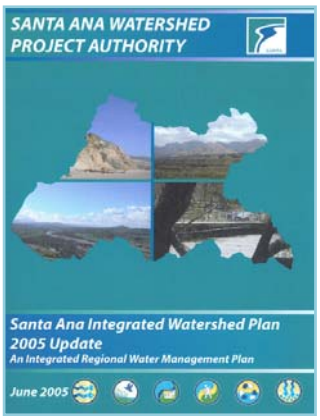
In 2002, SAWPA updated and expanded the water resources planning in its Santa Ana Integrated Watershed Plan (IWP), a three volume planning document that examines water resource management strategies to address regional needs in an integrated fashion. Water resource management strategies identified in this report included water storage, water quality protection and improvement, water recycling, storm & flood water management, and environment and habitat protection.



The first volume of the IWP is the Water Resources Component, a planning document that built upon member agency long-term water resource plans and management programs, thus providing a vehicle to ensure effective and concerted planning efforts on a regional basis. This volume also describes the necessary water resources projects to achieve zero reliance on imported water supply, and the amount of salt removal facilities necessary to achieve a salt balance in the watershed. The second volume of the IWP is the Environmental and Wetlands Component. It describes the watershed-wide wetlands program and watershed plan that integrates wetlands, trails, habitat, open space, education, and invasive species removal.

The third volume of the IWP is the Upper Santa Ana Regional Interceptor (SARI) Planning Component, which provides a foundational evaluation of the upper SARI, the watershed brine disposal pipeline, and a future long-term beneficial use of the SARI as the critical facility required to meet the SAWPA goal of transporting highly saline, non-domestic discharges out of the upper watershed to protect its groundwater resources.



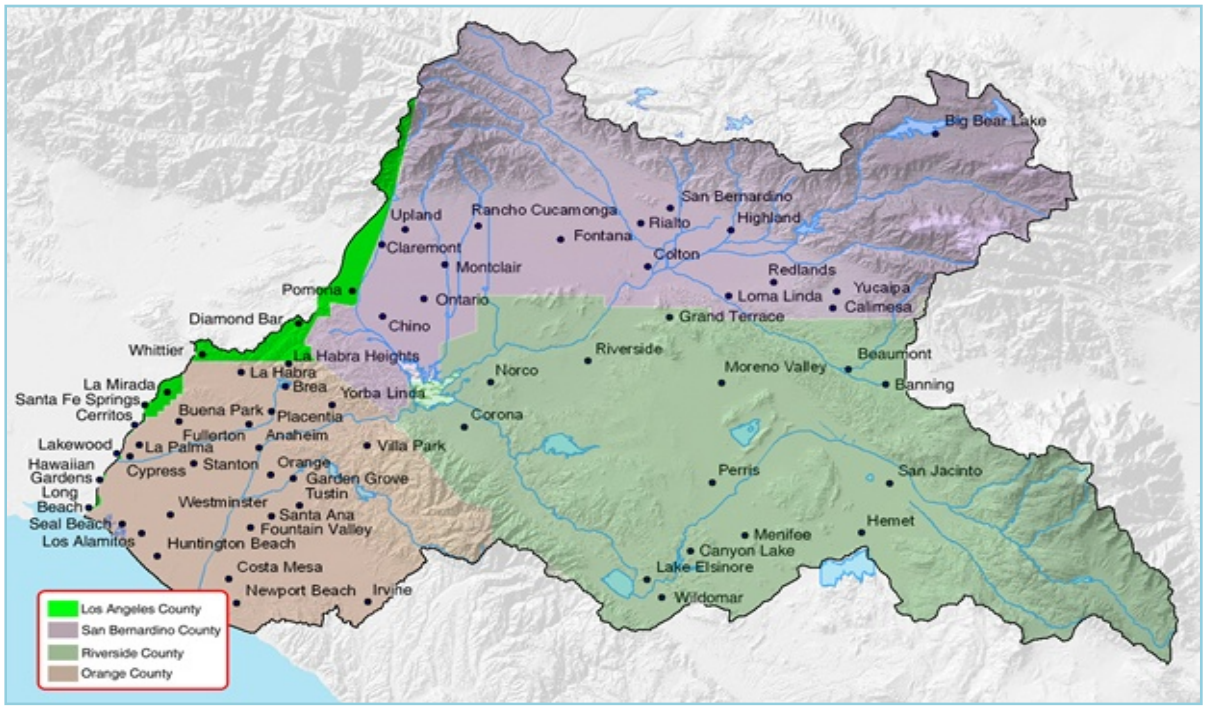


The first two volumes of the 2002 Integrated Regional Water Management Plan (IRWMP) were written and prepared by SAWPA Planning staff, with the third volume prepared by SAWPA's consultant, CDM. The 2002 three-volume report describes integrated water projects and provides justification for the first IRWMP in the State, described under the State Proposition 13 Water Bond. The success of this effort provided funding totaling $235 million for the Watershed.

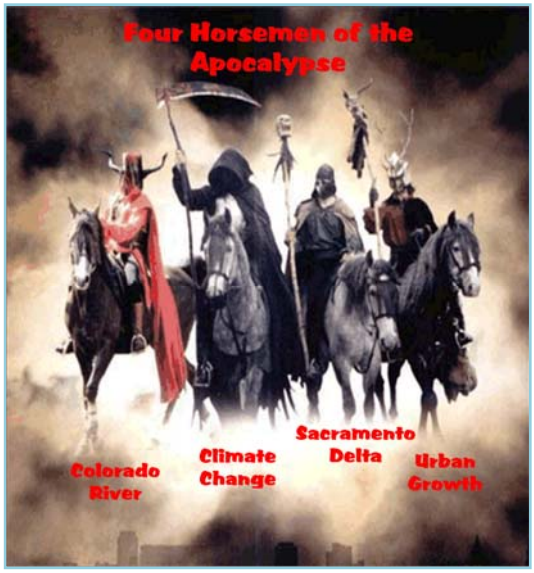
In 2005, SAWPA prepared the Santa Ana IWP 2005 Update, an IRWMP. This report, also prepared by SAWPA Planning staff, updated much of the work from the 2002 report incorporating the Urban Water Management Plans (UWMPs) performed by SAWPA member agencies and sub-agencies, and provided an updated listing of priority projects to achieve the goals of the watershed stakeholders. Recognizing the significant size of the watershed in geography and population, as well as the sheer complexity of coordination and integration of projects, the 2005 report sought to briefly describe and highlight the many detailed resource planning processes and documents that led to a list of proposed prioritized regional projects, as opposed to serving as a detailed technical or scientific water resource evaluation in itself. As a result of these efforts, the plan was ranked among the top ten IRWMPs by DWR staff, and provided the justification for $25 million from Proposition 50 IRWM implementation grant program.

The 2005 report also served as a clear indicator for local and State leaders of the enormous impact of the region on the State and Nation as noted by the following observations:

- Population of the region is larger than 41 U.S. states – 5.6 million people.
- Added over 75% of California's new jobs in the past 15 years.
- Will add over 20% of all new jobs in California in the next 15 years.
- Over 54% of the job growth for the State comes from the SAR region.



- Home to a 110-mile SAR Trail running from the San Bernardino Mountains to the Pacific Ocean.
- Contains some of the most sophisticated multi-agency groundwater management planning and salt management strategies in the U.S.
- Home to effective collaborative Regional Board/stakeholders efforts which now serve as a template for SWRCB strategic implementation.



In light of the growing need to address safe reliable water infrastructure, voters of the State of California passed Proposition 84 in 2006, which allocated $1 billion to integrated regions throughout the State. Concurrent with this support, significant water crises have arisen prompting SAWPA and the regional stakeholders to update the Santa Ana IWP, now called the One Water One Watershed (OWOW) Plan.

The vision of the OWOW Plan is a sustainable Watershed that is drought-proofed, salt-balanced, and supports economic and environmental viability. To achieve this vision, stakeholders must address four major crises or threats, which SAWPA has labeled the Four Horsemen of the Apocalypse. They are:

1) Climate Change resulting in reduced water supplies combined with increased water needs in the region.
2) Colorado River Drought Conditions resulting in reductions of imported supply due to upper basin entitlements and continued long-term drought.
3) San Joaquin Delta Vulnerability resulting in reductions or loss of supply due to catastrophic levee failure or changing management practices of the Delta.
4) Population Growth and Development resulting in interruptions in hydrology and groundwater recharge while increasing water needs.

Further description as to why these crises must be addressed herein follows.

Climate Change

One horseman impacting not just our region or State, but the entire world, is climate change. No longer considered conjecture, the worldwide scientific community consensus is that climate change or global warming is occurring and must be addressed immediately to offset the impact to water resources and the environment. The International Panel on Climate Change has stated that the world's climate is warming by an average of 1.3 degrees Fahrenheit in the past century. Unless current trends are reversed, global warming is projected to keep increasing and raise temperatures by as much as 11.5 degrees by the end of the century. The California Department of Water Resources' (DWR) report entitled, *Managing an Uncertain Future: Climate Change Adaptation Strategies for California's Water*, details how climate change already is affecting the State's water supplies, and sets forth a number of recommendations to help avoid or reduce climate change

impacts to water resources. The report indicated that global warming will present significant challenges to future water supply, water quality, ecosystem protection, and flood management. Assessments on water supply and other impacts from climate change indicate likely reductions in snow pack, earlier and larger peak stream flows, potential reduction in runoff, greater evaporative losses, declining ecosystem health, sea level rise, and more extreme weather events, including flood and droughts. Other management activities affected by climate change include the need to consider energy use and greenhouse emissions of water resource projects, as well as the regional vulnerability of water systems.

The DWR report proposes ten adaptation strategies in four categories to deal with the climate change crisis. One of these strategies suggests that regional and local entities implement a diverse portfolio of water management techniques to better address uncertainties of changing water patterns. The report continues by stating that the management approach of IRWM, already in place throughout the State, is a key part of Governor Schwarzenegger's vision for California's water future. The report states that IRWM will become the core strategy in water planning to adapt to the challenges posed by climate change.

Recognizing that drought conditions have been a concern for many years in the dry, semi-arid environment of southern California, the impacts of climate change likely will further exacerbate the challenges and problems of assuring adequate water supply for the future. In June 2008, the concerns of drought and possible climate change impacts became all too real when the State of California formally proclaimed that the State was in a drought and that immediate action was necessary. The drought was announced after two straight years of below-average rainfall, and very low snowmelt runoff – 55% of average conditions. Immediate action was proposed by the State to establish a 20% reduction goal in statewide water use and expand water conservation efforts.

Colorado River Drought Conditions

In addition to the statewide drought, another horseman of the Apocalypse that has impacted the SAR Region is the decreased imported water flow to southern California from the Colorado River. The Colorado River Basin covers a vast western multi-state region extending up into Wyoming, and descending through Utah, Colorado, Arizona, Nevada, and finally into California. Over the eight years prior to 2008, the Colorado River Basin experienced severe drought conditions with

records showing that these years were some of the driest consecutive years in the history of the basin. If the drought conditions continue, reservoirs along the river such as Lake Powell and Lake Mead will continue to drop, and thereby reduce storage releases and energy production.

As N. Christensen reported in his 2004 Climate Change report, *The Effects of Climate Change on Hydrology and Water Resources of the Colorado River Basin*, projections show that by 2050, the Colorado River flow would decline by 18% with the average Colorado River Basin water storage declining by 32%. Experts conducting studies of tree ring data in the Colorado River Basin have determined that severe and prolonged droughts, lasting up to 60 years or more, have occurred in the past and are likely to occur again. As population continues to grow throughout the dry desert southwest, the water levels at Lake Powell and Lake Mead likely will continue to drop, with some projection indicating that the lakes may become dry by 2025.

MWD, which serves as the importing water agency for most of southern California, relies heavily on the flows from the CRA to assure that water demands are met. In 2005, flows from CRA basic apportionment of 0.5 million AF along with various transfer programs, canal lining projects, and additional storage programs amounted to 0.75 million AF being delivered to its service area. With further CRA development and storage projects, MWD has set a goal in their last Integrated Regional Plan to reach 1.25 million AF. However, as this source of flows decreases, the concerns of meeting this goal and providing adequate water supply to meet the region's future water demands will intensify. Because the drought conditions, as well as climate change, are impacting the entire Colorado River Basin, river flows will be further depleted as a result of upper basin states maximizing their deliveries from the River and fully utilizing their entitlements to meet continued water demands. In the past year, diminished runoff and increased extractions resulted in a reduction of MWD's imported supplies by nearly a quarter. Consequently, assurances of even the basic apportionment of 0.5 million AF to MWD as one of the last river entitlements is now in jeopardy.

San Joaquin Delta Vulnerability

The San Joaquin Delta is home to over 750 plant and animal species. Out of 29 identified indigenous fish species, 12 of them are either threatened with extinction or already have become extinct. Endangered species include the spring-run and winter-run Chinook salmon and the Delta smelt. Other fish species are threatened as well, including longfin smelt, threadfin shad, and striped bass. Water diversions, urban development, loss of habitat, impaired water quality due to pesticides, and increased competition from invasive species are all factors thought to be influencing the decline; many scientists have warned that an ecological crash of the food web and the Delta food web is possible. In August 2007, with recent reports that Delta smelt populations had dropped significantly, State Court Judge Oliver Wanger ordered water exports reduced anywhere from 6 to 33% during the months of December through June, in order to protect the smelt. "The evidence is ncontradicted that

these project operations move the fish. It happens and the law says something has to be done about it," said Wanger.

The shutdown of the SWP interrupted water deliveries to water agencies throughout California, forcing many to utilize stored water reserves to serve some 25 million people, not to mention millions of acres of farmland. The reaction of water officials across the State was of shock and concern. Governor Schwarzenegger issued a press release, calling the ruling "a devastating blow to our water supply and economy", while Jeff Kightlinger of MWD stated, "Judge Wanger's decision to cut back water supplies doesn't address various other Delta problems and issues. Invasive species will continue to deplete food supplies for Delta smelt, pesticide runoff that can harm the estuary will persist, and the levee system will remain vulnerable to earthquakes and rising sea levels caused by climate change."

The crisis of the Delta centers not just on water pumping issues, but also on the condition of the Delta's levees, many of which were not properly designed. Concerns have arisen that if several key levees should fail due to increasing sea levels or earthquake conditions, water deliveries could be interrupted again. Looking long-term, rising sea levels caused by climate change also could push additional salt into the Delta, potentially affecting the quality or availability of drinking and irrigation water. As a result, public agencies are working together like never before to seek solutions to these problems to ensure continued deliveries of high quality Delta water for the foreseeable future.

Population Growth and Development

Most of the precipitation and snowmelt runoff occurs in the northern part of California, but the majority of the population lives in the drier central and southern portions of the State. This imbalance is not expected to change. According to population estimates issued by California's Department of Finance, four of the five southern California counties will add more than ten million people between now and 2050, an increase of 65% over year 2000 census numbers. Los Angeles is expected to remain the most populated county in California, followed by Riverside County, San Diego County, Orange County, and San Bernardino County, all of which portions of the most heavily populated areas fall within the Watershed. Overall, the State's total population will increase to 60 million people by the year 2050, an increase of over 56% from the 2000 census numbers.
With the increasing population growth, efforts to assure adequate water supply for the region will become more difficult. The challenge facing the Watershed is that some of the core population growth occurring in the State, as well as the Nation will arise out of this region. As population

increases, demands for adequate housing also will increase. The crisis to water resources is not the growth of development *per se*, but how the water is used in new development that assures sustainability.

In the Watershed, one of the most rapidly urbanizing and growing regions in the State, huge areas of land that historically captured and recharged natural runoff into the groundwater and provides important replenishment water for pumping gradually is being paved over. The runoff from development instead is directed to storm sewers and channels that discharge to downstream rivers and streams and eventually are lost to the ocean. This tremendous amount of water that is no longer percolating into the ground is picked up along parking lots and streets and further contaminated by oil, grease, trash, bacteria, and fertilizer additives applied to adjacent landscaping. These byproducts represent a major water quality threat to downstream water bodies, many of which have been listed by water quality regulators as impaired, requiring total maximum daily loads (TMDLs). Taken cumulatively, the water lost from the resulting development when sustainable land use and water use practices are not in place, if continued unchecked, will become a major water crisis for the region, and one of the four horsemen of the apocalypse impacting water resources. A need for a new water ethic for the preciousness of water, increased water capture and percolation, and improved land use practices will be required to handle this looming problem.

Santa Ana "One Water One Watershed" IRWMP Planning Effort

To address the four horsemen of the apocalypse, water agencies and stakeholders in the Watershed are working together to plan for climate change, long-term drought, further interruptions in Delta water, and population growth. This effort is being coordinated by SAWPA, who has helped coordinate water and sewer improvement projects for its member agencies for many years. It also has facilitated a number of task force efforts directed at specific water issues. But under SAWPA's leadership, the joint powers authority has expanded its integrated watershed planning outreach efforts to include every aspect of water and every stakeholder on a watershed-wide basis.

SAWPA officially launched this IRWM planning effort during a meeting in the City of Chino on May 24, 2007, in which 178 officials representing more than 100 agencies in Riverside, San Bernardino and Orange counties met to discuss the framework for the "OWOW Plan", a shared vision of the Watershed – a 2,650-square mile area from the San Bernardino Mountains westward to the Pacific Ocean. The goal and expectation was that this IRWMP would be far more comprehensive than any plan that could be developed by a single agency.

Participants from numerous agencies and organizations have volunteered to serve on committees and have addressed every aspect of water management planning, including water supply reliability, water quality improvement, water conservation, climate change, land use, flood risk management, environment and habitat enhancement, water recycling, as well as water use in parks, recreation and open space areas. Participants also integrated water supply with environmental needs and included environmental justice and disadvantaged communities' issues into integrated water solutions.

The fundamental concept for this planning process was to pull parties together in every aspect of the water arena—those who provide water, those who use it, and those who manage it—in a way that has never been done before and in a way that goes beyond the interests of any one agency. This approach marked a major shift from previous IRWM planning efforts by greatly expanding the number and type of agencies and organizations involved in the process. It is noted that some agencies' missions are so narrowly defined that they cannot easily plan for improvements that also would benefit surrounding constituencies.

With the advent of several water crises approaching or facing us now, the need to move forward with water resource integrated planning has become absolutely necessary. Through long-term collaboration among the many participating agencies, new synergies and multi-beneficial projects can be developed that focus on sustainability for the future. In this fashion, future funding can be leveraged for the benefit of everyone in the Watershed. It is clear that this type of planning also is critical for economic development. If water and the other amenities that go with it are not available, economic development will be curbed substantially.

Unlike previous IRWMPs prepared by SAWPA, the OWOW Plan is divided into two phases. The first phase focuses on integrated water resource planning without identification of specific priority projects.

Similar to a city or county general plan, the OWOW Plan provides an overall view of water resources with identification of current conditions and problem identification, current and future management strategies, and opportunities for collaboration and integration. Types of projects, rather than specific projects, have been identified in this first phase, similar to the relationship between a general plan to a specific plan. Individual projects will be reviewed, described and prioritized in the next phase of the OWOW Plan. The culmination of the first phase and all the stakeholder efforts were described at a major conference for the OWOW Plan held on January 29, 2009. The conference was entitled, *State of the Santa Ana River Watershed – Overcoming Boundaries*.

The goal of the conference was to continue to conduct outreach with watershed stakeholders to review efforts to find solutions to water issues in the Watershed. Through this conference, for the first phase of the OWOW Plan, organizers, including SAWPA are accomplishing the following:

- Further development of a regional "Santa Ana River Watershed" identity that encourages cooperation in addressing regional issues, both locally and legislatively.
- Inform those who manage water resources of possible interdisciplinary conflicts and create synergies (e.g., water supply and flood agencies manage the same surface water resources, but frequently manage resources in a manner counter-productive to each other's interests).
- Better engage the land use and business community, showcasing water supply and quality as cornerstones of sustainable economic growth.

The next phase of OWOW commenced on June 1, 2010, with a call for projects and the development of a rating and ranking system to attract the most cost effective, multi-beneficial, and sustainable water projects needed for the region and State. More details about the governance of this process are discussed below.

OWOW Governance

In developing the One Water One Watershed (OWOW) Integrated Regional Water Management (IRWM) plan for the Santa Ana River Watershed, a decided "bottom up" approach was envisioned for governance, as opposed to a "top down" approach. At the core of this approach was that unlike previous SAWPA IRWM plans or other IRWM planning approaches across the State, every effort has been made to allow the key discussions of major water resource issues, concerns, problems, goals and objectives, and potential solutions to originate and be fully vetted at the stakeholder level first – the stakeholders being the local agencies, organizations and other interested parties within the Santa Ana River Watershed. By expanding the involvement and collaboration of stakeholders at the "on-the-ground" level, it was possible to incorporate the deeper understanding of local issues afforded by stakeholders, and generate greater buy-in and support.

Consequently, if one were to ask where the governance for the Santa Ana River Watershed OWOW process originates, we believe it is at the grass-roots level, the foundation of a decentralized and collaborative "big tent" approach.

OWOW governance takes place at several levels:

- Involvement from the watershed community at large through the creation of ten working groups (referred to as **Pillars**) representing different water issues, and in charge of identifying issues, proposing potential solutions, and writing the OWOW Plan.
- The formation of a Steering Committee composed of elected officials and representatives from water districts, the private sector, the environmental community, and the regulatory community, tasked with the development of the goals and objectives of the plan, strategic decision-making, project prioritization, and issuing recommendations.
- SAWPA administration and staff in charge of facilitating this bottom-up approach to watershed planning.
- Additional open public participation through a series of public workshops and meetings, as well as open sessions of the Steering Committee and SAWPA Commission in which the OWOW process was discussed

Pillars

In order to manage the initial planning work, the stakeholders were organized into ten workgroups, or Pillars, centered on specific water resource management issue. These ten areas are aligned with the Resource Management Strategies identified in the Proposition 84 Guidelines, as summarized in the following table.

Pillar group	**Corresponding Prop 84 Guidelines Resource Management Strategies**
Land Use and Water	Increase water supply Improve water quality Practice resource stewardship
Water Supply Reliability	Reduce water demand Improve operational efficiency and transfers Increase water supply
Water Recycling	Increase water supply Improve water quality
Water Use Efficiency	Reduce water demand
Water Quality	Improve water quality
Environmental and Habitat Restoration	Practice resource stewardship
Stormwater Risk Assessment	Improve flood management
Environmental Justice	Included in Guidelines as part of Impact and Benefit Standard
Parks and Open Space	Not explicitly mentioned in Guidelines
Climate change	Included in Guidelines as separate standard

The pillar categories were chosen based upon a review of water resource management strategies defined in the California Department of Water Resources (DWR) State Water Plan, previous DWR guidelines for IRWMP development, and local water resource needs.

The Pillars consisted of approximately 10 to 60 volunteers depending on the topic and interest level. The volunteers included participants from local agencies, special districts, non-profit organizations, university officials, Native American Tribes, and private citizens. Each pillar was led by a volunteer with expertise in the water issue assigned to each particular group. The leaders were selected by the SAWPA Commission and approved by the Steering Committee, and were responsible for working with their groups in organizing, leading, and facilitating the planning process for their particular topic. At the end of the process, each pillar group prepared a chapter of the Plan, documenting current conditions and issues, and describing current and future watershed management strategies.

In addition to identifying issues and potential strategies for their particular area of interest, the pillars were asked to view the watershed problems from a multidisciplinary perspective that extended beyond their topic, and to consider other pillars' perspectives. For example, the water supply pillar had to keep into consideration environmental and habitat restoration issues when developing their strategies. Through this process, synergies were developed and multi-benefit programs were identified. For example, through this approach, it was possible to incorporate the understanding that many downstream water resource and water quality problems could be more effectively and efficiently addressed upstream at the source, thus requiring collaboration with other entities. Over time, this process of collaboration among the pillar groups provided a more unified vision that resulted in new integrated and multi-beneficial solutions to water resource challenges, and that increased collaboration among jurisdictions and geographies.

Another role of the Pillars was to provide support and input to the Steering Committee about the OWOW goals and objectives, based on their technical expertise in various water resource fields and their local knowledge.

It is important to point out that the planning approach taken for the development of this plan transcends previous integrated regional water resource planning efforts by deemphasizing planning solely as a prerequisite for an impending grant funding opportunity or for the development of a list of specific projects. Rather, the emphasis was placed on building a collaborative approach amongst stakeholders to help meet long-term (2025 time horizon) goals and objectives in an integrated and multi-beneficial manner.

After the completion of the Plan, the pillar groups will continue meeting to explore new opportunities for collaboration.

Steering Committee

The next level of governance up from the foundation of the pillars was the OWOW Steering Committee. The Committee, consisting of 11 representatives from throughout the watershed, was convened by the SAWPA Commission and included:

- 2 representatives from the SAWPA Commission, representing water agencies, who serve as Convener and Vice-Convener
- 3 County Supervisors - one from each county
- 3 mayors - from large cities in each county
- 1 business representative from the development community
- 1 representative from the environmental community
- 1 Regional Water Quality Control Board Member

The Steering Committee's role is to serve as the developer of integrated regional water management goals and objectives for the watershed and to act as the oversight body that performs strategic decision making, crafts and adopts programmatic suites of project recommendations, and provides program advocacy necessary to optimize water resource protection for all.

Furthermore, through the Steering Committee, the public at large can voice its opinion during its public meetings. Public meetings are held at least quarterly and are conducted in accordance with the Ralph M. Brown Act when discussing matters of policy and project selection.

The Steering Committee members serve a term of two years under their committee role. If a Steering Committee representative is termed out of office or resigns from the office seat, the representative may continue in the assigned Steering Committee role until the two-year term expires, if requested by the Steering Committee. Steering Committee members may be appointed for multiple terms.

SAWPA Administration

The other arm to the governance of the OWOW process includes the management function conducted by the Santa Ana Watershed Project Authority (SAWPA). As a regional water agency for the Santa Ana River Watershed, SAWPA has a long history of supporting regional collaborative efforts of this kind. As with previous IRWMP efforts for the Santa Ana River Watershed, SAWPA serves as support in providing administrative and facilitative assistance to the pillar groups and the Steering Committee for the overall OWOW plan development. Further, SAWPA provides computer tools to assist the Steering Committee and pillars in decision-making processes, provides planning documents to allow pillars to build upon previous existing plans, and performs significant public outreach and education about the integrated planning approach for the Santa Ana River Watershed.

As the administrator of OWOW and the Regional Water Management Group for the Santa Ana River Watershed, SAWPA worked closely with several sub-regional IRWM planning efforts in the watershed that took place prior to, or concurrent with, the OWOW planning process. Of particular interest was the need to assure that proper coordination and incorporation of the excellent work conducted by the sub-regional IRWM planning groups was included in the OWOW plan. SAWPA staff conducted outreach to all stakeholders of the sub-regional IRWM planning efforts, and invited their stakeholders to participate in the pillar processes. In some cases, SAWPA staff even participated in the sub-regional IRWM planning process. Where sub-regional IRWM plans previously were completed, these plans were shared with the pillars to serve as background material to their pillar planning efforts. In all cases, SAWPA took a lead role in coordinating the IRWM lead agencies to assure that their planning work would be folded into the OWOW watershed-wide process as

seamlessly as possible. It is understood that the Steering Committee will be responsible for the development and implementation of the project selection criteria.

As funding opportunities arise to implement the OWOW plan, the Steering Committee will provide to the SAWPA Commission an updated Santa Ana River Watershed IRWM plan and programmatic portfolio of projects specific to the funding opportunity. The SAWPA Commission will review the plan and programmatic project portfolio to ensure that these fulfill the intent and requirements of the specific funding mechanism, any legislative bill authorizing the funding, all legal requirements as defined by the funding administrative agency, and equitable application of the benefits of the project portfolio across the entire region. Review of these items and the project selection process will be conducted by the SAWPA Commission in a public hearing open to all interested stakeholders. If the SAWPA Commission is unable to ratify a specific portfolio of projects, the Commission will send it back to the Steering Committee.

Thereafter, SAWPA serves as the State liaison for the Santa Ana region, on behalf of the OWOW stakeholders, responsible for all final report submittals, plan adoption processes, grant application submittals, and administrative oversight for the Santa Ana OWOW IRMW Plan funding.

Planning Updates and Coordination

The OWOW Plan will be a "living document" and will be updated every three to five years in a coordinated manner with local, regional and statewide plans. Plan updates will be formally adopted by the Steering Committee and ratified by the SAWPA Commission. The pillar groups will continue to be an instrumental part of the update process by providing technical expertise and ensuring that the points of view of different disciplines and interests groups are taken into consideration.

Plan updates will incorporate, for example, changes to city General Plans, land use elements, Stormwater Management Plans, Water and Wastewater Master Plans, Urban Water Management Plans, County land use planning documents, and the Southern California Association of Governments (SCAG) land use data.

In addition, new water management strategies will be incorporated into future versions of the Plan as additional knowledge is gained on the state of the watershed, new technologies and best practices, and changes in policy and public mindsets. Furthermore, the Plan will be updated as necessary to comply with the requirements of future grant funding opportunities.

The OWOW Plan will be provided to cities, counties, water suppliers, nonprofit organizations, and other regional and State agencies for use in their water resource planning efforts. It is anticipated that the findings will support planning efforts and updates to General Plans, Strategic Plans, and other plans and programs. The document also will be helpful input to the Metropolitan Water District of Southern California Integrated Resources Plan, and the State of California DWR Water Plan.

OWOW Outreach Program

Engaging stakeholder involvement in a large, diverse watershed is challenging. It is unlikely that any one individual "knows" all of the stakeholders, and as such, the development of mailing lists and notification of workgroup meetings can be daunting. The OWOW process was designed to be different from other planning processes. One critical difference is that OWOW was designed to be a "bottom-up", rather than a "top-down" process. By encouraging participation from different groups of people and those holding varying viewpoints from throughout the Watershed, the capacity to reach larger numbers of stakeholders also grew.

Pillar Groups

As discussed in other sections of this document, the initial work of the OWOW process was done by planning pillars or subject area groups. Each group is led by a subject area expert, and that person brought their own list of potential participants to the process. For example, a water supply expert is likely to know other water supply experts within and outside the region. These individuals were invited to the process, and were an important addition to the vast mailing list maintained by SAWPA. Each Pillar leader is responsible for maintaining a list of contacts interested in their particular pillar, and SAWPA provides names of additional contacts. The knowledge and contacts of these pillar groups provide an important link to watershed stakeholders.

Web-Based Document Management

Pillar leaders were provided a Web-based tool to allow development of this document in a virtual Web-based environment that allowed collaborators from across the watershed to "check out" sections for writing and editing. Each pillar leader was able to control and track work flow/edits through a Web server. All participants and interested parties were able to request access to the server to view edits and working copies. Areas identified that required further discussion could be discussed on a publicly-accessible companion forum.

This Web-based discussion forum was established for each pillar group. Anyone interested was able to use the forum to discuss issues surrounding each section. This discussion forum provided a mechanism to collect information, receive comments, and facilitate communication across disciplines. How each group used the tool was dependent on their specific needs, with some groups preferring face-to-face dialogue, and others making use of conference calling and Web tools. Web-based discussion forums also provide for transparency and identification of new stakeholders.

SAWPA Distribution List

SAWPA primarily provided communication to stakeholders based on an extensive electronic mailing list maintained on by SAWPA. The list is regularly updated, and anyone requesting information is added to the list. Email contact allows regular communication with a broad group of stakeholders throughout the Watershed. The mailing list also includes stakeholders outside the Watershed who are interested in issues within the Watershed.

The master contacts database includes a rather diverse base of approximately 4,000 stakeholders. The focus of the database is those having an interest in water and representatives from cities located within the Watershed. It includes representatives from 121 agencies associated with water, from flood control, water conservation districts, and water supply agencies. It also includes contacts from the 66 incorporated cities within the Watershed, including mayors, key department heads, city council members, and planning commissioners. The database also includes an up-to-date list of members of the California legislature.

Also included are representatives from county, State, and Federal governments, Indian Tribes, the real estate community, members of the environmental, agricultural and development communities, consultants, trade associations, academia, media, nonprofit organizations, and others simply interested in water.

Newsletters

SAWPA has published 12 electronic OWOW newsletters since the inception of the program in the spring of 2007. The newsletter is distributed to everyone on the mailing list and is intended to provide background and updates on the OWOW program, as well as provide information on issues of interest to the Watershed community. To date, five of the OWOW Pillar leaders have included an article in the newsletter. These articles provide a link between a Pillar and the broader watershed community. This process will continue with other Pillar leaders to encourage conversation across disciplines and geography.

Beam Blasts

SAWPA also sent out six short electronic "beam blasts" to a subset of the distribution list. A beam blast is intended to provide a brief, one-page issue update to an audience interested in policy, rather than technical issues. This electronic communications are provided to policy makers and opinion leaders throughout the Watershed. They provide introductions to issues for those that may not have time to read newsletters or attend meetings. Several conference calls also were scheduled so that interested members of this group could receive briefings on watershed issues.

Podcasts

A podcast can be defined as a series of audio or video digital media files distributed over the Internet so that it can be played on personal computers or portable digital players. SAWPA posted two audio podcasts on its Website so that interested parties could become familiar with and participate in the OWOW process. Availability of these podcasts was announced using the SAWPA distribution list. SAWPA continues to work to ensure that stakeholders are informed and have the ability to participate. Podcasts also reduce the need to drive to a particular location to learn about a topic. As many individuals have limited time, this is a way to allow greater participation.

Twitter

SAWPA currently uses Twitter as a social media tool for providing updates and timely information of interest to watershed stakeholders. Frequency of stakeholder contact is sporadic, but occurs at least weekly.

Forums

SAWPA hosts an OWOW discussion forum to discuss specific projects or OWOW activities. This provides an effective means of communication with stakeholders about current plans, as well as a means for identifying and planning future collaborative activities. The forum also makes it possible to develop contacts across functional disciplines and geographic boundaries.

Public Meetings and Presentations

The core of any public outreach program is the direct contact with interested stakeholder groups. As part of the OWOW process, SAWPA staff has made 64 presentations to specific stakeholder groups to both inform and to invite participation. The initial OWOW kick-off meeting (May 24, 2007) was attended by over 200 interested parties from across the Watershed. SAWPA also hosted a town hall meeting (October 31, 2007) to initiate the public comment period on OWOW goals and objectives. During the summer of 2008, SAWPA hosted three meetings—July 17 in San Bernardino County, July 21 in Orange County, and July 24 in Riverside County—to discuss the benefits of collaboration and multi-benefit watershed projects. On January 31, 2009, SAWPA hosted a watershed conference with an expected attendance of 1,000 to discuss current conditions within the Watershed and talk about integrated, sustainable solutions. A draft OWOW integrated planning document was distributed for comment. The document also was posted on the SAWPA Website so those that did not attend the conference could participate.

SAWPA hosted its second annual OWOW watershed conference on April 22, 2010, to discuss the OWOW plan development to date, and the new DWR IRWM Plan standards and IRWM Proposal Solicitation Packages under Proposition 84. With an attendance of nearly 450, the goal was to develop a watershed focus and encourage collaboration in developing multi-benefit projects. Participants identified greater operational efficiencies and reduced environmental impacts as benefits of these kinds of projects.

SAWPA staff also has provided briefings and presentations to a number of specific groups. The presentations included a review of the OWOW program and an invitation to participate in the process. Representative presentations to specific groups are summarized below.

- Cities
- Agricultural Groups
- Business/Economic Development Groups
- Watershed Councils and Groups
- Presentations to Organizations

Presentations to Organizations

American Society of Civil Engineers

Association of California Water Agencies

California Foundation on Environment and the Economy

California Special Districts Association

California Water Policy 17 Conference

Inland Empire Water Conference

Metropolitan Water District of Orange County Water Policy Forum

National Water Research Institute

Orange County Water Summit

Regional Coordination Conference of Water Officials

Riverside County Water Symposium

San Manuel Band of Mission Indians

SAWPA 20 by 2020 Water Symposium

Urban Water Institute

Water Education Foundation

Western Riverside Council of Governments

Western Riverside County Agricultural Coalition

Area Focused Water Groups

Basin Technical Group of San Bernardino Valley Coastal Coalition

Inland Empire Utilities Agency Chino Creek Planning Group

Lake Elsinore & San Jacinto Watersheds Authority (LESJWA)

Newport Bay Watershed Executive Committee

San Antonio Canyon Stakeholders Committee

San Jacinto River Watershed Council

Santa Ana River Dischargers Association

Santa Ana River Watershed Alliance

Business/Economic Development Group

I-215 Corridor Economic Development Summit

Inland Action Group

Temecula Valley Chamber of Commerce

Valley Group

Agricultural Groups

Riverside County Farm Bureau