Assembly
California Legislature

SELECT COMMITTEE ON REGIONAL APPROACHES
TO ADDRESSING THE STATE'S WATER CRISIS

JOSE SOLORIO
CHAIR

Regional Water Infrastructure and Jobs: The Inland Empire

Thursday, May 20, 2010

Background Paper

This hearing on "Regional Water Infrastructure and Jobs" comes at an auspicious time for regional water management generally. Regional water management celebrates its 10th anniversary this year, and stands at a crossroads, for several reasons:

- The State continues to suffer from a budget deficit, leading to the State having difficulties selling water bonds that could provide State funding for integrated regional water management. State Integrated Regional Water Management (IRWM) funding therefore has been delayed in recent years.
- California has suffered a serious drought and limitations on exporting water from the Sacramento-San Joaquin Delta (Delta), leading to a focus on short-term mitigation of drought effects. This year has brought rain and snow levels closer to average – 95% of the statewide average according to the Department of Water Resources (DWR) April 30 drought report. Water supply nevertheless continues to be limited.
- Finally, and perhaps most importantly, the Legislature passed and the Governor signed a landmark water legislation package in 2009. This comprehensive package addressed several critical California water issues:
    - *The Delta* – setting a new course for Delta governance and planning
    - *Water Conservation* – requiring 20% reduction of per capita urban water usage by 2020 and agricultural water management plans
    - *Groundwater Elevation Monitoring* – establishing California's first statewide groundwater monitoring program for all-basin reporting of depth-to-groundwater
    - *Water Finance* – including a water bond on the November 2010 ballot and $546 million in appropriations for urgent Delta improvement projects
    - *Water Use Reporting* – ensuring consistent water use reporting requirements statewide, including diverters in the Delta

STATE CAPITOL ♦ P.O. BOX 942849 ♦ SACRAMENTO, CA 94249-0069
TEL: (916) 319-2069 ♦ FAX: (916) 319-2169

In that context, this hearing will concentrate on regional water infrastructure and jobs in the Inland Empire and the Santa Ana River Watershed. While the State continues to play a substantial role in California water supply, ensuring a reliable water supply for the future depends on the efforts of the many local and regional water agencies. The State Water Project may deliver a significant share of Southern California's water supply, but water agencies draw on many resources to deliver water to the taps of the region's homes and businesses. Constructing and operating this regional water infrastructure creates jobs and contributes significantly to the region's economy. This hearing will examine the challenges and opportunities of the Inland Empire region's regional water system and its effect on jobs in the current economy.

I. Integrated Regional Water Management – 10 Years On

California has adopted "integrated regional water management" (IRWM) as the best way to ensure that the state continues to enjoy a reliable water supply well into the future, for all its urban, agricultural and environmental needs. IRWM promotes integration of water agencies, stakeholders, and resources across a watershed or region, to provide for greater efficiency and to diversify each region's water resources, which will improve the resilience of water supplies over the long-term. The State's IRWM policy, as reflected in the Integrated Regional Water Management Planning Act (Part 2.2 of Division 6 of the Water Code, § 10530 *et seq.*), seeks "to improve water supply reliability, water quality, and environmental stewardship to meet current and future needs." Cal.Water Code § 10531.

A. History of Integrated Regional Water Management

Over the last century, California has constructed a water infrastructure that connects most of its watersheds, promoting interdependence among California's regions when it comes to water supply. California's urban areas have imported water from distant Sierra Nevada watersheds and the Colorado River. The federal Central Valley Project (CVP) connected the Sacramento, San Joaquin, Tulare and Kern basins. The State Water Project (SWP) connected the San Francisco Bay Area, Southern California, Tulare Lake and Kern River basins to the abundance of water resources in the Sacramento River and the northern Sierra Nevada watershed. With the Delta as the hub of many of these connections, individual water agencies have relied on distant watersheds for their supply.

Development: IRWM has its roots in many regional efforts to coordinate local water supply programs, from the San Francisco Bay Area to Southern California's Metropolitan Water District (MWD). In the early 1990's, MWD began an "integrated resource planning" program to address both imported supplies from the Delta and the Colorado River and local water supply programs. In the late 1990's, San Francisco Bay Area water agencies, which rely, at least in part, on imported water from various sources, began discussing common interests, such as connecting their water project pipelines to increase reliability in case of emergency or expanding Los Vaqueros Reservoir as a regional water supply project. The Sacramento Valley also had begun coordinated planning among its agencies, particularly in relation to groundwater management. These regional planning discussions led to greater interest in regional coordination to improve water supply reliability.

The State of California adopted a regional water management approach as part of the August 2000 "Record of Decision" (ROD) for the CALFED Bay-Delta Program. A series of CALFED policies, developed in the final months leading to the CALFED "Framework for Action" and the ROD, began the process that led to creation of the Integrated Regional Water Management Program, established in Proposition 50 (2002). These policies included a watershed program of "locally led watershed management activities and protections that contribute to the achievement of CALFED goals for ecosystem restoration, water quality improvement, and water supply reliability." Other policies included the first CALFED governance "commitment," to "rely on leadership in local communities across the State to provide advice and support for implementing CALFED projects affecting their communities." While recognizing the history of statewide connection to and reliance on the Delta, the CALFED ROD encouraged agencies in each region to work together to address its water supply needs.

IRWM Funding: "Integrated regional water management plans" achieved legal recognition when voters approved IRWM bond funding in Proposition 50. The 2002 bond allocated $500 million "to protect communities from drought, protect and improve water quality, and improve local water security by reducing dependence on imported water" through the development and implementation of IRWM plans. The Department of Water Resources (DWR) estimates that IRWM-related allocations - directly and indirectly - from Proposition 50 total approximately $3.5 billion. In 2006, voters approved Proposition 84, which allocated $1 billion for IRWM planning and projects. Last year's SB 2 X7 (Cogdill), Chap. 3 of the 7th Ex. Sess. of 2009, placed an $11.14 billion bond on the November 2010 ballot that included an additional $1.05 billion for IRWM.

IRWM Reform: Passage of Proposition 84 (2006), which included some policy direction for IRWM planning and programs, led to an additional effort to reform the State's IRWM program, resulting in passage of SB 1 X2 (Perata), Chap. 1 of the 2nd Ex. Sess. of 2007-08. This bill, which focused on appropriation of already-approved water bond funding, also included reform of the statute creating the IRWM program in state law. This new statute addressed several issues that had emerged in the years since the IRWM program was established in 2002:

- public involvement in IRWM planning and project development
- DWR's IRWM grant guidelines addressing water quality standards, multi-benefit approaches to selection and design of projects, climate change, and avoidance of conflicts
- expansion of issues required to be addressed in IRWM plans
- preference (but not limitation) for State funding of projects selected by IRWM plans

Since passage of this IRWM reform, DWR issued a new set of "Final Supplemental Funding IRWM Grant Program Guidelines," on May 5, 2010.

Due to budget constraints, IRWM funding has not been granted to integrated regional water management groups as quickly as originally anticipated after passage of Proposition 84 in 2006. DWR is now in the process of completing selection of certain IRWM grants, based on previous appropriations, and is accepting applications for specified IRWM projects. The Governor's original 2010-11 budget included $181 million in IRWM funding. More information on IRWM grants may be found on DWR's IRWM webpages, at: http://www.water.ca.gov/irwm/.

B. Emergence of Integrated Regional Water Management

The IRWM program developed in response to both long-standing and evolving issues in California water management. IRWM relied on the watershed approach, where complex

challenges can be addressed by using a "systems" strategy. This had become a popular point of discussion since the 1960's in the academic community, but had proved difficult to implement. The difficulties came not from environmental or technical issues but from the human arena. Getting all the necessary people to work together was a challenge when cooperation was not really required. But, in the Santa Ana Watershed, the scarcity of water, water rights battles and salinity problems had forced water agencies to work together for years.

There has been a growing tension in the water industry between short-term water development and delivery and more sustainable long-term resource management. This is joined by the fact that the large federal/state water projects have been completed, and environmental issues with an effect on water supply have emerged. California's population and water demand has increased to a point that future limits to water supply can be seen. These long-term threats to water-supply reliability have led to increased collaboration among local water agencies with each region.

Working together to integrate and diversify water resources has emerged as a way to improve water system efficiency and reliability, particularly in light of climate change and rising energy costs. IRWM can contribute to economic efficiencies, addressing unintended consequences that are costly to others and developing synergy among agency water supply efforts. IRWM also improves the resilience of the watershed's water supply in light of changes. When one source becomes less reliable, other sources – including from other agencies – may provide a backup system. In this way resources can be managed and a better balance can be achieved among those competing for the same resource. Operating the water system as a watershed allows multiple uses of the same water, as one agency uses, treats, and passes the water downstream for use or for recharge of groundwater. The Santa Ana River watershed operates this way. Integrating regional water resources therefore advances statewide water supply reliability, with each region gaining greater water supply reliability.

C. Near-term Challenges for Integrated Regional Water Management

Regional water management continues to evolve, as both state and regional developments occur. Recent state budgets and the 2009 Delta/Water Legislation have had some of the most significant impacts. Success of State bond sales will continue to affect the availability of DWR IRWM grants, which will affect state and regional priorities for funding water infrastructure projects. Last year's water package sets some new priorities and deadlines that will affect how the regions plan for integrated water management, including:

- Established water conservation objectives that will drive regional investment decisions.
- Extended the deadline for urban water management plans to July 2011, to allow for incorporation of water conservation efforts into these plans.
- Introduced policy of reduced reliance on the Delta for future water supplies, including greater investment in regional water supply infrastructure.
- Required statewide groundwater elevation monitoring, which will strengthen connections between groundwater and surface water management in IRWM plans, in some regions.

With the recent approval of new DWR IRWM grant guidelines, regions developing IRWM plans will need to adjust their regional water strategies to respond to new legal requirements for IRWM management. DWR also recently issued a draft California Water Plan, which may have implications for IRWM and urban water management plans, although there is no specific requirement for local compliance with the State’s plan.

II. 2009 Delta/Water Legislation and Regional Water Management

While the 2009 Delta/Water Legislation reflected some new directions in water policy at the State level, the package included numerous provisions with significant implications for regional water management. The legislation asserts the statewide interests in the Sacramento-San Joaquin Delta (Delta), but relies on local and regional agencies to implement much of the package, from water conservation to groundwater monitoring. This legislative approach is consistent with the long-standing leadership of the local water agencies that actually deliver water to customers who use water for agricultural, residential or industrial uses.

A. Sacramento-San Joaquin Delta – Plan & Governance

Last year's legislative package originated in issues related to the Delta, including both an ecosystem crisis and water export reductions, starting with the delivery of the Schwarzenegger Administration's recommendations for a new "Delta Vision" on January 3, 2009. The "Delta Vision Strategic Plan" included seven goals as well as multiple strategies and actions for each goal,, to establish a new vision for the Delta.

SB 1 X7 (Simitian), Chapter 5 of the 7th Extraordinary Session of 2009, established new state policy, governance and planning requirements for the Delta. The key provisions included:

Integrates State Policy for the Delta: Sets "co-equal goals" of a more reliable water supply and ecosystem restoration for water, land, fish, and wildlife resources, which apply to all state and local agencies in Delta.

- Protects Delta's existing unique cultural and economic values.
- Aims to reduce reliance on Delta for future water supplies.
- Sets reasonable use and public trust as foundation for water policy.
- Protects existing water rights.

Creates Comprehensive Delta Governance Structure.

- Creates Delta Stewardship Council, to:
  - Develop and adopt new Delta plan.
  - Oversee Delta programs/projects for all agencies.
- Reforms Delta Protection Commission to reflect in-Delta perspective.
- Creates Delta Conservancy to protect the Delta's environment – and its economy.
- Establishes Delta Independent Science Board.
- Requires a Delta Water Master to enforce water laws.

Establishes New Delta Plan

- Addresses all Delta natural resources – land and water.
- Allows Delta Stewardship Council broad discretion in development.
- Sets high standards for "Bay-Delta Conservation Plan."
- Requires "Gold Standard" for Delta resource conservation.
- Applies "Natural Community Conservation Planning" (NCCP) rules.
- Requires good science and adaptive management.

Several key policies or concepts in the Delta bill promoted regional water management. First, the State adopted a policy to reduce reliance on Delta water exports for future water supplies and

invest more in regional water infrastructure and regional self-reliance. Second, the bill establishes governance structures that engage the Delta counties in the State's management of the Delta. Finally, the bill allows the Bay-Delta Conservation Plan (BDCP), which has engaged water agencies across the state in development, to play a prominent role in the new Delta Plan adopted by the Delta Stewardship Council. The water project contractors that benefit from any new Delta water conveyance facility in the BDCP, including MWD, must pay the full costs for such a facility, including environmental mitigation.

B. Water Conservation

Last year, two water conservation bills proceeded on a parallel track as the multiple Delta bills developed. The result was a bill that set per capita water conservation objectives for urban water users and required agricultural water agencies to adopt agricultural water management plans. SB 7 X7 (Steinberg), Chapter 4 of the 7th Extraordinary Session of 2009:

- Sets goal of reducing urban per capita water use statewide by 20% by 2020.
  - four "pathways" for local agencies to achieve 20-by-2020 goal
  - statewide application, but flexible implementation
- Requires agricultural water management plans.
- Sets plan to establish best management practices for commercial use.
- Establishes standardized water information reporting system.

C. Integrated Water Reporting: Groundwater Elevation and Delta Water Use

Several bills related to water use reporting, water rights enforcement, and groundwater monitoring proceeded through the legislature last year. The Legislature ultimately passed bills that integrated water reporting for groundwater elevations and Delta water diversions.

SB 6 X7 (Steinberg) – Statewide Groundwater Monitoring Program

- Establishes statewide groundwater elevation monitoring program.
- Relies on local water agency reporting of "depth-to-groundwater."
- Imposes consequences for refusal to report groundwater elevation.
- Takes first step toward better understanding of California groundwater resources.

By 2009, the Legislature had considered groundwater monitoring bills for four years and California had become the last western state without any statewide groundwater monitoring or management. Governor Schwarzenegger previously vetoed three such bills, including the last one that was substantially similar to SB 6 X7, Chapter 1 of the 7th Extraordinary Session of 2009. The groundwater monitoring statute relies on local agencies reporting groundwater elevations in their region. This bill offers another example of the Legislature relying on regional water management to contribute to statewide water management objectives.

SB 8 X7 (Steinberg) – Water Diversion Reporting and Project Funding

- Eliminates exemptions from existing water use reporting requirements.
- Imposes consequences for failure to report water use.
- Increases State Water Resources Control Board enforcement resources.
  - authorization and funding for more enforcement officers
- Appropriates $546 million in existing bond funding for:
  - critical water and environmental projects
  - focus on the Delta

SB 8 X7, Chapter 2 of the 7th Extraordinary Session of 2009, made water use reporting requirements consistent, eliminating exemptions for Delta water users and increasing consequences for failure to submit the required reports.

D. Water Bond

After four years of debate over water bonds, the Legislature placed an $11.14 billion water bond on the November 2010 ballot. The 2009 legislative debate on the water bond was limited because the previous debate had been extensive. The categories of funding in the bond measure on this November's ballot are essentially the same as had been discussed in previous years. The most substantial bond debate centered on the $3 billion of continuous appropriation for water storage, labeled "Statewide Water System Operational Improvements." The Legislature included groundwater storage projects among those eligible for such funding, and required a showing by storage project advocates that the project would provide a "public benefit."

Project Category	Allocation
Drought Relief & Small Community Wastewater	$455 million
Integrated Regional Water Supply	$1.4 billion
Sacramento-San Joaquin Delta Ecosystem	$2.25 billion
Statewide Water System Operational Improvements	$3 billion
Resource Conservation & Watershed Protection	$1.785 billion
Groundwater Protection & Water Quality	$1 billion
Water Recycling & Conservation	$1.25 billion
TOTAL	**$11.14 billion**

The structure of this general obligation bond supports regional water management in several ways. First, its funding allocations include approximately 36% ($4.1 billion) for regional and local water resource supply projects. Second, those allocations include $1.4 billion for IRWM planning and projects, which will further advance the State's 10-year policy supporting regional water management. Finally, the "Statewide Water System" allocation relies on federal, state and local agencies developing a competitive plan and then sharing in the costs of a storage project.

III. Regional Water Management in the Inland Empire

From a water perspective, the "Inland Empire" is concentrated in the Santa Ana River watershed. Some may suggest that the region extends to parts of the San Gabriel River watershed. The region's primary water issues, however, arise out of management of the Santa Ana River, its tributaries, the groundwater basin that underlies the region, and imported water supplies from the Colorado River and the Delta.

The Santa Ana watershed has a long history of regional water management, dating to the 1968 creation of the Santa Ana Watershed Project Authority (SAWPA). In the last two decades, SAWPA has succeeded in attracting state and federal funding to support its watershed-wide development of water infrastructure. Its member agencies and their customers nevertheless retain a significant amount of independence. Each operates its own infrastructure and delivers water to customers independent of SAWPA and each other. The four primary SAWPA member agencies in the Inland Empire have independent relationships or contracts with the Metropolitan

Water District of Southern California (MWD) or the State Water Project. Each agency draws water from its own mix of resources, while collaborating in management of the Santa Ana River watershed. These agencies appear to balance independence and interdependence in their form of regional water management.

A. Water Resources

The Inland Empire relies on a variable mix of water resources, including groundwater, imported surface water from the State Water Project (SWP) and the Colorado River (MWD), and surface water from the Santa Ana River and its tributaries. While these supplies may intermingle in one form or another, several Inland Empire water agencies claim their own independent supply from one source or another. The inherent relationships among these water supplies, particularly ground and surface water, nevertheless create challenges and make it difficult, if not impossible, for water agencies to maintain strict independence.

- *Groundwater:* While much of the Inland Empire relies largely on groundwater, degradation of its quality threatens its long-term reliability. The last century of agricultural and industrial water use has led to groundwater contamination, particularly perchlorate. The Santa Ana River groundwater basin is one of the most actively managed aquifers in the state, with agencies seeking to maintain a sustainable resource. The basin is recharged by local runoff (both rain and snow), groundwater recharge facilities along the Santa Ana River system, and recycled water.
- *Imported Water:* In the last decade, the Inland Empire's two sources of imported water have suffered reduced reliability. On the Colorado River, MWD now imports less water through its aqueduct, due to continuing drought conditions and implementation of the 2003 agreement to limit California to its 4.4 million acre-feet share of the River. The SWP also has delivered less water, due to drought and the Delta ecosystem crisis resulting in restricted Delta water exports. MWD reports that its water reserve levels remain low (in the yellow zone) and its water supply allocation plan for water shortages remains in effect.
- *Surface Water:* Availability of native surface water supplies is limited in any case, with only a handful of agencies having access to such supplies, often from tributaries to the Santa Ana River (*e.g.* Lytle Creek). This last decade has seen similar fluctuations in the reliability of these water supplies, as the region has suffered drought with the rest of the state.

The threats to each of these resources have created the greatest challenges for ensuring future water supply reliability for the Inland Empire region. The region's agencies, led by SAWPA, have created several programs and facilities to address these threats and improve long-term water supply reliability. Combined with efforts to improve SWP reliability, these agencies have made substantial strides toward achieving a "sustainable Santa Ana River Watershed [that] supports economic and environmental vitality and an enhanced quality of life" [SAWPA's mission statement].

B. Regional Water Planning: One Water One Watershed Plan (OWOW)

SAWPA and its member agencies have been developing a watershed management plan, called the "One Water One Watershed Plan" (OWOW). It provides a comprehensive and collaborative plan for developing water infrastructure in the Santa Ana River Watershed. The OWOW approach, goals, and strategies represent new thinking in water management planning for the Inland Empire.

Beginning from the "ground up," and involving more than 100 stakeholders from the beginning of the planning process, OWOW integrates needs and objectives across a variety of geographical

and practical perspectives. Whereas conventional planning often develops projects based on a single objective – improving water supply reliability or quality, for example – OWOW takes a multi-objective approach, identifying strategies for developing water infrastructure in the Inland Empire that have multiple benefits. The Plan considers objectives from all areas of water management planning to develop integrated strategies that improve the sustainability of water supply in the Watershed area. These strategies mitigate against four key threats to water supply in the region and state: climate change, drought conditions impacting supply from the Colorado River, vulnerability of the San Joaquin Delta, and population growth and development. Through the OWOW planning process, SAWPA identified twelve cross-cutting strategies to improve the sustainability of water supply in the Inland Empire:

OWOW Strategies

1. Increase storage
2. Reduce demand
3. Value water differently
4. Desalt groundwater
5. Develop risk-based water quality improvement programs
6. Incorporate integrated water planning into land-use general plans
7. Maximize preservation and use of native plants
8. Manage public property for more than one use
9. Recycle water
10. Consider stormwater as water supply
11. Create watershed governance
12. Implement watershed-wide education programs

The draft OWOW report identifies several obstacles to achieving its stated objectives, and calls for a new approach for water management, a new "water ethic" among stakeholders. Water should be seen as a collective resource, rather than defined according to its source or expected end use, to encourage collaboration among stakeholders. Moving forward, as water supply objectives align less with singularly expanding infrastructure and more around broad concepts of sustainability, regulatory structures and social values must adapt, as well. A longer-term perspective is needed to protect water supply availability, reliability, and quality, while considering climate change impacts, environmental justice, flooding risk, habitat protection, land use development, and recreation. Strategies should be flexible, so that limited finances may be used to achieve multiple objectives. Local communities, governments, and water agencies must embrace sustainability measures collectively, if the larger region is to develop reliable and efficient future water supply infrastructure. And, perhaps most importantly, water must be valued differently – to represent the true cost of supply, and to include costs associated with all other impacts of concern.

C. Challenges & Opportunities

The Inland Empire has long faced challenges in ensuring an adequate water supply, particularly as its population has grown substantially, but its water leaders have capitalized on water supply opportunities, from imported Colorado River water in the 1930's to the water conservation and recycled water projects of today. The region's primary supply comes from groundwater, so its greatest water supply development efforts have focused there. Improving groundwater supplies requires integration with the region's other water supplies, where SAWPA and its member agencies have led the state in integrating surface water and groundwater to maximize groundwater recharge. Challenges to the region's water supply nevertheless remain.

1. Groundwater Quality

A century of agricultural and industrial development throughout the Inland Empire has led to contamination of various parts of the groundwater aquifer. The kinds of contamination vary, and include contaminants from both agriculture and industry. Nitrates from the Chino Basin's history of dairy farms, and perchlorate from the region's aerospace and industrial past are among the region's groundwater quality challenges. To reduce salinity intrusion from upstream wastewater, SAWPA has created a "brine line," called the Santa Ana River Interceptor line, to treat certain industrial and utility wastewater and take it to the ocean.

The most current challenge to groundwater quality is **perchlorate**. Last year, the United States Environmental Protection Agency (EPA) placed a 160-acre site in Rialto on the Superfund National Priorities List for cleanup. Congressman Joe Baca has introduced House Resolution 4252, the Inland Empire Perchlorate Ground Water Plume Assessment Act of 2010, to require the U.S. Geological Survey to investigate perchlorate concentrations and groundwater resources. Perchlorate contamination threatens various parts of the Inland Empire, particularly if the current plumes migrate to other areas that rely exclusively on groundwater.

Recently, debate over the acceptable level of perchlorate concentrations in drinking water has emerged. EPA established an interim health reference level for perchlorate of 15 parts per billion (ppb). EPA has concluded that 15 ppb protects all sensitive populations – including infants – but is also considering whether to adopt a drinking water standard for perchlorate, a compound (salt) not currently regulated at the federal level. The State's Office of Environmental Health Hazard Assessment (OEHHA) originally adopted a public health goal (PHG) for perchlorate of 6 ppb in March 2004, but has since begun the PHG review process. Some water interests have expressed concern about changing the perchlorate PHG to a more stringent level.

2. Groundwater Recharge & Management

The Santa Ana River watershed has one of the most active groundwater recharge and management programs in the state. SAWPA member agencies (including Orange County Water District downstream) recharge the groundwater aquifer from local runoff, imported water, recycled water and surface water storage facilities (*e.g.* Prado Dam). Some disputes as to groundwater recharge have arisen in recent years, with differences between upstream and downstream users. These disputes, however, appear to get resolved, either directly or indirectly, within the SAWPA agency family. Both Orange County and Western have obtained water rights to divert stormwater runoff in the River to treatment and groundwater recharge facilities.

3. Limitations on Imported Water

The Inland Empire receives most of its imported water supply from MWD, although San Bernardino has its own water supply contracts from the State Water Project. Both agencies therefore suffer when SWP water exports from the Delta are limited, due to drought or legal requirements arising out of the Delta ecosystem crisis. Deliveries to customers and diversions to surface or groundwater storage are reduced. MWD previously had estimated that it would have enough water to allow diversions to storage in 7 out of 10 years. In light of the current limitations on water from the Delta and the Colorado River, that forecast has been questioned, which leads to questions as to reliability of both imported water and groundwater that depends on regular recharge.

The limitations on imported water have led some agencies to reassess their long-term water supply reliability and ability to support additional development. Eastern Municipal Water District, for example, relies heavily on MWD's regional urban water management plan in completing its "water supply assessments" required for new developments as part of certain 2001 legislation (SB 221/SB 610). In early 2008, the Eastern board deferred all requests for Water Supply Assessments that were in the process at that time (about 8). The Board asked for an assessment of its future water supply given the changes arising out of federal court limitations on Delta exports. After Eastern staff completed multiple alternative analyses and presentations to the Board, Eastern determined that, with new customers aggressively reducing their demand through conservation, increasing the use of recycled water program as an indirect potable supply, and implementing the Tiered Rate Billing structure, Eastern could meet the supply needs of new developments. This process and determination offers a good example of the interaction between imported water supplies and the region's aggressive use of water conservation, and how the region supports long-term water supply reliability.

4. Recycled Water

Expansion of recycled water facilities has become a key strategy for the Inland Empire, particularly under the leadership of the Inland Empire Utilities Agency, which has advocated for greater recycled water funding from both the state and federal governments. Recycled water has gained the support of Southern California's Representative Grace Napolitano, who chairs the House Subcommittee on Water and Power. Last year's American Recovery and Reinvestment Act (ARRA) included $126 million for recycled water projects, with a significant amount of that funding coming to the Inland Empire. Agencies throughout the Inland Empire use recycled water for landscaping and other non-potable uses, as well as to recharge the region's aquifers.

D. Water Agencies

Inland Empire communities receive water from a wide variety of water organizations, including multiple levels of public water agencies (regional, wholesale, retail), cities, investor-owned public utilities, and mutual water companies. At the top of the system stands MWD and its imported water supplies. SAWPA includes four Inland Empire agencies – 3 MWD member agencies and San Bernardino Valley Municipal Water District. Those four member agencies provide water to numerous other public agencies and public utilities. The following descriptions of these agencies are drawn from their websites.

1. Inland Empire Utilities Agency

Inland Empire Utilities Agency, originally named the Chino Basin Municipal Water District (Chino Basin), was formed in 1950 to supply supplemental water to the region. Since its formation, the Agency has expanded its areas of responsibility from a supplemental water supplier to a regional wastewater treatment agency with domestic and industrial disposal systems and energy recovery/production facilities. In addition, the Agency has become a recycled water purveyor, biosolids/fertilizer treatment provider and continues as a leader in water supply salt management, for the purpose of protecting the regions vital groundwater supplies.

On July 1, 1998, Chino Basin officially became the Inland Empire Utilities Agency, to reflect the changes in the District’s mission. Today, IEUA continues to work to ensure that reliable services, which protect the environment while fostering economic development, are readily available when needed. IEUA’s 242 square mile service mile area is located in the southwest corner of San Bernardino County, approximately 35 miles east of Los Angeles. The agency provides regional wastewater service and imported water deliveries to eight contracting agencies:

- City of Chino
- City of Chino Hills
- Cucamonga Valley Water District
- City of Fontana
- City of Montclair
- City of Ontario
- City of Upland
- Monte Vista Water District

2. San Bernardino Valley Municipal Water District

San Bernardino Valley Municipal Water District (Valley District) was formed in 1954 as a regional agency to plan a long-range water supply for the San Bernardino Valley. It imports water into its service area through participation in the State Water Project (SWP) and manages groundwater storage within its boundaries. Its enabling act includes a broad range of powers to provide water, as well as wastewater and storm water disposal, recreation, and fire protection services. Valley District does not deliver water directly to retail water customers. Valley District is responsible for long-range water supply management, including importing supplemental water, and is responsible for most of the groundwater basins within its boundaries and for groundwater extraction over the amount specified in the judgments.

Valley District covers about 352 square miles in southwestern San Bernardino County, about 60 miles east of Los Angeles, and has a population of about 600,000. It spans the eastern two-thirds of the San Bernardino Valley, the Crafton Hills, and a portion of the Yucaipa Valley and includes the cities and communities of San Bernardino, Colton, Loma Linda, Redlands, Rialto, Bloomington, Highland, East Highland, Mentone, Grand Terrace, and Yucaipa.

3. Western Municipal Water District

Western was formed by the voters in 1954 to bring supplemental water to growing western Riverside County. Today, the District serves roughly 24,000 retail and eight wholesale customers with water from the Colorado River, State Water Project and groundwater. Western's general district consists of a 527-square mile area of western Riverside County, with an assessed valuation of $83 billion and a population of more than 853,000 people. Western currently sells approximately 125,000 acre-feet of water annually. About two-thirds of the water Western sells is treated; the balance is untreated or raw water. Western sells about 25% for agricultural uses, and the balance is for domestic purposes. It sells 25% to retail customers and the rest wholesale. Nearly all water sold by the District for agricultural purposes is used to irrigate citrus and avocados planted since the 1950s.

4. Eastern Municipal Water District

Since its formation in 1950, Eastern Municipal Water District has matured from a small, primarily agricultural-serving agency, to one whose major demands come from domestic customers. In 1951, EMWD annexed to MWD. Eastern's mission "is to provide safe and reliable water and wastewater management services to our community in an economical, efficient and responsible manner, now and in the future." The population within the current 542-square-mile service area is about 687,000. EMWD's operating budget for 2009/2010 is $217 million with net assets of approximately $1.5 billion (as of June 2009).