



A Commitment to Action

PERSPECTIVES FROM CALIFORNIA'S FIRST
INTEGRATED WATER MANAGEMENT SUMMIT

APRIL 2013





"The great hope today is that we are moving past that period of conflict towards a period of sustainable resources management that implicitly considers environmental values and factors and the associated risk and economic consequences of the investment decisions we make."

Mark Cowin,
Director,
California Department of
Water Resources



"Today's Summit lays the groundwork for moving integrated water management forward..."

Rita Schmidt Sudman,
Executive Director,
Water Education Foundation



PERSPECTIVES FROM CALIFORNIA'S FIRST INTEGRATED WATER MANAGEMENT SUMMIT

This document highlights the key perspectives and recommendations that emerged during the Integrated Water Management Summit held in Sacramento on April 3, 2013. The California Department of Water Resources (DWR) hosted the event in partnership with the Water Education Foundation and the California Water Commission, and would like to thank the 200+ attendees and guest speakers who participated in the Summit.

The goal of the Summit was to bring together water leaders from myriad agencies and organizations to share experiences and ideas on how we can effectively align to provide sustainable water resources services in the State, in the face of an uncertain future. Most agree that the water management approaches we have been relying on for several decades are no longer sustainable given today's economic climate, our changing environment and the need to supply safe drinking water, agricultural water and flood protection for a growing population, while also protecting and enhancing valuable environmental resources. The thoughtful presentations and informative discussions at the Summit served as an important milestone in the movement to shape a more cooperative and effective approach to water management in California.

The Summit launched a new campaign called "Water 360" to help refocus and strengthen the collective efforts of California's water management community by advancing integrated water management. Integrated water management is a framework for planning and implementation that melds the objectives of improving public safety, fostering environmental stewardship and supporting economic stability to lead to sustainable water resource management. Integrated water management is not a new concept in California, and great strides have been made in the last decade to utilize the approach, particularly at the regional level. The Water 360 Campaign builds on these early successes and calls for broader application across the entire state. DWR is prepared and committed to lead this effort in close partnership with other water leaders, particularly State, federal, and local agencies; and in collaboration with all stakeholders.



A NEW VISION FOR THE FUTURE

Two central themes were heard throughout the Summit:

- **recognition** that the 20th century approach to managing water resources in California must change
- **optimism** that more integrated and collaborative approaches to water resource management show tremendous promise

Several of the speakers spoke with conviction that the “old way of doing business” is no longer a viable option. They referenced the tremendous challenges involved with managing watersheds in California today along with the need to respond to changing societal values. Tim Quinn, Executive Director of the Association of California Water Agencies, summed up this point by saying:

The balancing act has changed over time. A half century ago... the policy goal of the day was cheap water for a growing economy. When that was the clear instruction coming from the political apparatus, balancing was relatively simple, and it was done by engineers...

Over time...there’s been a continual evolution in that policy goal. In 2009 we put it on a bumper sticker. We called it “co-equal goals,” which oversimplifies it. It’s a much better set of policy goals than we had before, but it’s much more complicated and diverse and a simple set of tools won’t solve that problem anymore. That’s what’s forcing this drive towards integrated water management: We’ve changed those policy goals and so we have to change the strategies to accomplish those goals.

Maintaining and improving the natural and human systems necessary to provide water supplies, protect water quality, support a sustainable and thriving ecosystem, safeguard against floods and provide other water-related services will require more effective planning and management supported by significant investments over the next few decades. The Summit speakers asserted that no single level of government, resource management agency, or group of water customers has the authority, expertise, or funding to address all of these needs alone. The evolving societal demands, the complexity of water-related interactions, and the level of uncertainty related to managing water resources in a sustainable way requires broad participation across multiple professional disciplines and perspectives to find workable solutions.

One of the primary hallmarks of the “old way of doing business” is the diffuse and disparate governance structure and institutions with single-purpose focus that has dominated the management of water resources since the mid-1800s. Lester Snow, Director of the California Water Foundation, described how these approaches used to make sense in light of the societal emphasis of resource extraction (like gold mining), reclaiming swamps and wetlands, and “taming the West” that was prevalent at the time. He emphasized: “We’ve been very thoughtful about setting up water management and regulatory silos.”



“For so many years, things were done in planning and water where supply was in a silo, ecosystem restoration was in a silo, recreation...in another silo...integrated water management is a way to bring it all together in changing times.”

John Laird,
Secretary,
California Natural Resources Agency



“A half century ago...the policy goal of the day was cheap water for a growing economy. Over time... there’s been a continual evolution in that policy goal...it’s much more complicated and diverse and a simple set of tools won’t solve that problem anymore.”

Tim Quinn,
Executive Director,
Association of
California Water Agencies



"There is no silver bullet. We have to have much more integrated, much more diverse strategies. It means tearing down some of the silos... We need to...manage water as a natural resource."

Lester Snow,
Director,
California Water Foundation

Mr. Snow described how the Federal Swamp and Overflow Act of 1850 and the intentionally designed narrow-channel leveed flood system, put in place to erode hydraulic mining debris, were mainly responsible for the loss of 95% of our wetlands and riparian habitat in the Central Valley. He reminded participants that both of these examples were "thought-out State and federal policy" at the time. Mr. Snow went on to say that as we respond to current challenges: "There is no silver bullet. We have to have much more integrated, much more diverse strategies. It means tearing down some of the silos... We need to actually remember and then manage water as a natural resource."



Mark Cowin, DWR Director, also spoke about changed societal goals over time and how DWR has responded. He described the evolution of water resource management through three primary phases: a period of resource extraction, a period of intense resource management conflicts, and the current transition to sustainable management. Recognizing this evolution has motivated DWR and the California Water Plan to promote a modern, holistic approach to water management which calls for:

- Improving cooperation among public agencies at all levels of government
- Moving beyond single-objective projects and alignment to multi-benefit, long-range and fiscally responsible solutions
- Promoting a comprehensive "360-degree" view for managing water resources and measuring success

This more holistic approach is referred to as integrated water management, with "Water 360" as the campaign intended to advance understanding and acceptance, promote adoption and strengthen this practice statewide.

DWR Deputy Director Gary Bardini explained that DWR views integrated water management as the framework for planning and implementation that melds the objectives of *improving public safety, fostering environmental stewardship, and supporting economic stability* to deliver multi-benefit programs and projects across watershed and jurisdictional boundaries. This is based on the observation that designing and implementing multi-benefit projects within the context of a big-picture view will lead to improved performance and resiliency of the entire water management system.



"It's not just about water quantity anymore. It's about land use and the common footprint...about balancing the needs of our multiple policy goals where they tend to collide in the real world."

Gary Bardini,
Deputy Director,
California Department
of Water Resources

A CALL FOR COOPERATION AND ALIGNMENT

As a community of water leaders and resource managers, we can find innovative solutions by acknowledging that we are working with different goals than in the past. Specific examples exist at all levels of government that demonstrate an increasing alignment toward integrated water management; here are a few that were discussed at the Summit:

- **Federal**—Steve Stockton of the U.S. Army Corps of Engineers talked about the U.S. Council on Environmental Quality’s updated *Principles and Requirements for Federal Investments in Water Resources* (March 2013), which provides a common framework for federal agencies’ funding decisions and promotes investment in integrated, multi-benefit solutions.
- **State**—DWR partnered with the U.S. Army Corps of Engineers to publish *California’s Flood Future* (Draft, March 2013) to provide the first look at statewide exposure to flood risk and to identify and address the barriers to improved flood management.
- **Local**—Terri Grant of Los Angeles County reported that the 2012 Los Angeles stormwater permit issued by the Regional Water Board allows 80+ local agency permittees to approach water quality protection in a more holistic manner. The new rules aim to treat stormwater runoff as a resource, instead of a waste stream, by allowing integrated solutions for retention and infiltration.

At the Summit, we heard encouraging examples of how several agencies have been engaging in more integrated approaches to managing water, in many cases with financial incentives from State government. Some of the speakers reported that they have found integrated water management more difficult and time-consuming than traditional approaches, but most agree it is worth the investment and will lead to better outcomes.



“I want to speak to the notion of integration across the regulatory agencies... a lot of times while we will meet and coordinate, we are not sharing resources. We are not sharing work. And therefore we are duplicating efforts and therefore adding years onto decisions that need to be made today.”

Caren Trgovcich,
Chief Deputy Director,
State Water Resources Control Board



“Shared risk management—it involves all of us. We’re all in this together. We need to look at multiple integrated strategies on how to buy down risk. It has to do with education, storage, structural and non-structural measures, evacuation plans [and] zoning....”

—Steve Stockton,
Director of Civil Works,
U.S. Army Corps of Engineers



“Even though the governance structure needs modification, there are opportunities to reach out and work together.”

Rick Johnson,
Executive Director,
Sacramento Area
Flood Control Agency



"We ask people to check their identities at the door when they come to an OWOW meeting, and think about what's best for the entire watershed in the aggregate first and distribute benefits to others second. This contradicts what has been our practice historically."

Celeste Cantú,
General Manager,
Santa Ana Watershed Project Authority



"The problem is, every time we try to get on the on-ramp for a multi-benefit project, we spend endless amounts of time analyzing...whether it's safe enough...We need to get to a point where we articulate specific measurable objectives up front, and routinely employ analytical tools designed to measure whether a proposed multi-benefit project actually advances the objectives. So this becomes the new normal."

John Cain,
Director of Conservation for
California Flood Management,
American Rivers

A CALL TO CHANGE THE WAY WE THINK

Difficulties arise as agencies and organizations start the process of coming together to develop a shared vision for what should be done. Celeste Cantú, General Manager of the Santa Ana Watershed Project Authority, described it this way:

Water is very simple. We understand the natural processes of water really well. But people are really complex, and that's where we run into challenges. The water industry is dominated by smart people, most of whom have had little training in conflict management or collaboration...those very skills we now find central to what we need today. We have operated with a frontier ethic "I'll take care of my own...and I won't impose on my neighbor, and my neighbor should not impose on me either." But this no longer fits.

Our ethic needs to be "Hey guys, we're all in the same boat and we're either going to drown together or be high or dry together." We have to work collaboratively. This is challenging, we need to develop a whole new way of working together.

This and similar experiences from around the state suggest that we need to reevaluate the skills and competencies necessary for successful water managers in the 21st century and take steps to help future leaders develop those skills and competencies.

This challenge reflects the fundamental need for us to change the way we think about managing water and associated resources. Given the diversity of perspectives and often competing ideas about what we should do, the need to articulate a clear and measurable way of defining success is more important now than ever before. If we are not able to express clear objectives that are measurable and understandable by all involved in the process, then it will be impossible to identify and implement solutions that will satisfy the broad set of needs.

In addition to clear objectives, we need quantitative performance measures that can help us evaluate how investments in the water resource management system can and has provided public safety, fostered environmental stewardship, and supported a stable economy. With better cooperation and collaboration, agencies and organizations with responsibility in some aspect of water resources protection and management will start to look at their roles from the perspective of these three fundamental goals, and agree on specific quantitative measures to evaluate the merits of potential investments.

Several of the speakers at the Summit acknowledged that adopting a more integrated approach to managing water resources makes good sense, but they recognized that we still have a long way to go and must overcome many tough challenges to do it well.

A CALL TO CHANGE THE WAY WE GOVERN AND INVEST

DWR Director Cowin stated that perhaps the biggest challenge we face is:

Overcoming the fractured, diffuse system of water governance that we have in California that evolved over time...We have agencies at all different levels of government that have different types of responsibilities that tend to be siloed. Integrated water management approaches can provide a system for managing those different authorities towards common purposes.

Part of the difficulty with our current governance model is that most agencies were established to focus on a few objectives (e.g., supplying water, protecting/regulating water quality, or protecting/enhancing fish and wildlife habitat). With this type of narrow focus, other objectives outside of an agency’s area of responsibility or window of authority are either assumed by a different agency or not addressed.

Some water resource managers cite limitations within their current authorities and organizational missions that prevent or hinder them from engaging with others to collectively address broader water management objectives. Also, in some cases, certain sources of funding can only be used to satisfy specific (and sometimes narrowly defined) objectives. This concern about agency authorities and restrictions on funding that could inhibit collaboration and cooperation warrants further exploration. More innovative and flexible governance structures, institutions and funding mechanisms are needed moving forward to support a more cooperative and watershed-based approach to sustainable water management.

Several proposals related to governance and financing of water management in California have been put forward in recent years by organizations such as the Public Policy Institute of California, the Little Hoover Commission (an independent state oversight agency) and the Association of California Water Agencies. It will take time to consider and evaluate such proposals, and some would require new legislation and sweeping reforms to implement. In the mean time, State, federal, tribal and local water leaders need to work together to consider incremental, yet effective improvements possible within the current structure and authority of the various governing agencies.

Ellen Hanak, Co-Director of Research of the Public Policy Institute of California, described potential types of near-term actions that would not require significant legislative changes:

Financial incentives are a good way to help integration...that’s the carrot side. I do think that there’s a real role for the stick side too...people get motivated to do integration when they have a regulatory or a legal problem and it’s going to be way more expensive to solve it the old way.

We’ve heard about the need for smarter and more integrated permitting, and providing permitting incentives, and that’s definitely a piece of it, but also sometimes it’s implementing laws that are on the books that aren’t necessarily being implemented.



“We need a stable funding source. The grants are wonderful, but they are periodic and you can’t rely on them all the time. You can find money to build projects, but sometimes I’m hesitant to ask for it because you don’t have money to maintain the project...it is a challenge that a lot of agencies have.”

Terri Grant,
Principal Engineer,
Los Angeles County Department
of Public Works



“It makes a lot of sense to approach water and land management in an integrated way just from an economic perspective. It’s more efficient.”

Ellen Hanak,
Co-Director,
Research of the Public Policy
Institute of California



"In small rural communities, we've got broken systems and don't have the technical, managerial, or financial capacity to address them. For regions like this... we have to be thinking on a parallel track about some basics like how we bring them potable water. To ask these types of communities to also come together and do integrated water management is a real challenge."

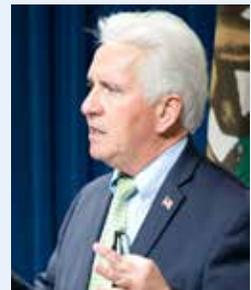
Mark Drew, PhD,
Eastern Sierra Regional Manager,
Director, Inyo-Mono IRWM Program

Integrated water management calls for governance structures that allow for meaningful engagement and inclusion of myriad stakeholders in a watershed, such as flood management and land use agencies, environmental groups, water purveyors and agricultural and urban landowners/water users. Institutional and decision-making processes need to support development and implementation of multi-benefit solutions that meet the collective needs and broad concerns of the entire community. As we heard during the Summit, this can be one of the most challenging aspects of integrated water management at the regional and local level. When stakeholders have been invited to collectively consider a very broad set of objectives such as water quality, water supply, energy, recreation, flood management and land use, some managers have reported it difficult to engage in meaningful conversations or reach mutually agreeable outcomes. Without looking to a more long-term outcome and sustainable value, such processes may appear to consume more time and resources with little or no perceived benefit.

Summit speakers such as Mark Drew of the Inyo-Mono IRWM Program and California Trout, Inc., pointed out that some stakeholders (for example disadvantaged rural communities) do not have the technical, managerial, or fiscal capacity to qualify for funding, or plan and conduct integrated projects. Celeste Cantú of SAWPA stated that in some cases, we should be less concerned about getting funding for projects, than for the process and the means to get everyone to the table, including the small voices, the non governmental organizations and the disadvantaged communities. Clearly, future improvements in governance and finance must address the needs of all Californians.



"In the 5-year average, from 2009 to 2013, our average water allocation south of the Delta was 43%. We can't go on that way. The Central Valley is kind of the canary in the coal mine, because every region in California's water supply is at risk."



—Representative Jim Costa, U.S. Congress, speaking on behalf of Central Valley agricultural interests

A CALL FOR LEADERSHIP AND ACTION

John Laird, Secretary of the California Natural Resources Agency, emphasized the importance of working together and bringing diverse forces and resources together in more effective ways. Both Secretary Laird and Director Cowin emphasized how important partnership and adequate resources will be to bring about this important change in water management.

Effective leadership requires a clear vision of what needs to be done. As part of his vision to enhance the long-term performance and resiliency of California's water management systems, Director Cowin outlined four major actions and outcomes he believes are necessary to respond effectively to the water management challenges of the 21st century:

- **Improve planning tools** that can help us evaluate risk and uncertainty, predict and measure system performance and resiliency, and quantify the value of benefits related to ecosystem function and health
- **Improve our understanding** about water management systems (and interactions with natural resources) through strategic investments in science and better integration of science into planning processes
- **Improve financing** by developing a reliable source of funds to support statewide planning and incentives that promote and reward local investments in integrated, multi-benefit projects
- **Improve alignment of agencies, policies and regulatory responsibility** to allow agencies to be more creative in response to changing needs in ways that protect the environment and support the other integrated water management goals of improving public safety and supporting a stable economy

Director Cowin acknowledged that accomplishing these four needed outcomes will not be easy and that achieving them will require bold leadership and cooperation across multiple agencies and organizations. He promised that DWR will do everything it can to lead the way, and invited others to join in these important efforts.



"In working on the 2013 updated California Water Plan, three themes have emerged to guide our future: we need to "double down" on integrated water management, strengthen the alignment among government agencies, and invest in innovation and infrastructure."

Kamyar Guivetchi
 Manager, Statewide Integrated Water Management,
 California Department of Water Resources



“There’s nothing as powerful as an idea whose time has come, and with regard to integrated water management, the time has come.”

Steve Stockton,
Director of Civil Works,
U.S. Army Corps of Engineers



“The take away for me is the discovery of new ideas, and new and better ways to do things. How do we stir those creative juices and work together to do things better? We’re talking about interaction and integration.”

Sue Sims,
Executive Officer,
California Water Commission

The following table summarizes the key outcomes of the Water 360 Summit, including the major water management challenges we face today, messages from some of the Summit participants, and DWR’s commitment to action.

California’s Water Management Challenges	Selected Perspectives from Summit Participants	DWR’s Commitment to Action
The water management community lacks a common vision; clear, tangible goals; and tools for measuring success.	<p>“We need to get to a point where we can spell out what our objectives are in a specific measurable way, and we have tools to actually measure whether a multi-benefit project gets us there quicker.”</p> <p>John Cain, American Rivers</p>	Facilitate the progression toward a shared understanding, vision and goals. Advance tools and science to evaluate risk, measure performance, and quantify the value of benefits related to: public safety, environmental stewardship, and economic stability.
Despite changing societal goals, fiscal resources and physical realities (e.g., climate change impacts), old ethics are slow to adjust to a new paradigm.	<p>“It is no longer feasible to build the 20th century-style ‘big fixes’ that may disregard our neighbors and downstream impacts. The ratepayers are telling us to get together and manage that singular drop of water together.”</p> <p>Celeste Cantú, Santa Ana Watershed Project Authority</p>	Provide continued incentives for multi-benefit solutions that address 21st century realities. Identify meaningful ways to develop the skills and competencies needed for future water leaders within and outside of DWR.
State agencies are not aligned towards a common purpose, and regulators are often driven by narrowly focused responsibilities which can result in conflicting or redundant regulation.	<p>“While [the regulatory agencies] will meet together and coordinate, we are not sharing resources. We are not sharing work. And therefore we are duplicating effort and adding years onto decisions that need to be made today.”</p> <p>Caren Trgovcich, State Water Board</p>	Practice the integrated water management approach within DWR. Work with other State, federal and local government agencies to innovate governance and streamline regulation.
State government lacks a stable, reliable funding source for planning and long-term management of water resources, especially at the regional and local level. Funding is typically constrained by legislative mandates and tied to narrowly-defined objectives.	<p>“There are some alternatives to bonds, for which we have some good models within California. I’ll point to the Metropolitan Water District... they apply a surcharge on the water that they sell, and that money gets used for supporting exactly the kind of [integrated solutions] we’re talking about here.”</p> <p>Ellen Hanak, Public Policy Institute of California</p>	Set and promote funding priorities that encourage and motivate a statewide transition to integrated water management. Work with State, federal and local agencies and organizations to explore reliable funding sources that incentivize and reward local investments in integrated solutions.

WHAT YOU CAN DO

There was broad agreement that the current manner in which we manage water and associated resources, which we inherited from the past century, needs to change in order to successfully meet the future needs of California citizens and the ecosystem. None of us can bring about these changes alone. DWR is committed to help accomplish these changes, and asks you to:

- **Continue to Engage in the Conversation and Look for Common Ground**— We need to continue to work together to arrive at a shared vision of our preferred future for water management in California. It is not likely that improvements in governance or finance can be made without identifying a broadly shared vision with tangible goals and outcomes.
- **Be Open to and Support Change**— The process of changing the way we think about and implement water resource services in California will not be easy. All know that change can be very uncomfortable and messy. To be successful, we must be willing to take risks, accept change, and stay the course until improvements are realized.
- **Help Identify Constraints and Share Ideas for How to Improve**— The first step in finding new, more effective ways of working together is to speak candidly about how well things are (or are not) working. We must look earnestly at what is supporting (or impeding) progress and stay committed to improving the performance and resiliency of the multi-faceted systems that provide water resource services to all Californians.



CONTINUED ENGAGEMENT: Outcomes from the Integrated Regional Water Management Conference, **April 4-5, 2013** and Strategic Plan Workshops, **April-May 2013**

During the two days following the Summit, DWR and the Water Education Foundation continued the conversation at a conference focused on integrated regional water management. This event brought representatives from water and flood management agencies, city and county governments, regulatory agencies, tribes, environmental groups, agricultural interests, business and academia together. Conference attendees participated in interactive sessions to share their experiences about transforming California's water management culture to improve public safety, foster environmental stewardship and support economic stability on a regional and watershed scale. For more information, see: www.watereducation.org.

Additionally, DWR sponsored a series of Integrated Regional Water Management workshops during April and May to discuss the future of the integrated regional water management program. For more information, see: www.water.ca.gov/irwm/stratplan.

Edmund G. Brown Jr.

Governor
State of California

John Laird

Secretary
California Natural Resources Agency

Mark Cowin

Director
California Department of
Water Resources



California Department of
Water Resources
www.water.ca.gov

Thank you to the speakers and panel members who participated in the Summit, representing the following agencies:

- American Rivers
- Association of California Water Agencies
- California Natural Resources Agency
- California Trout, Inc.
- California Water Commission
- California Water Foundation
- Los Angeles County Department of Public Works
- Public Policy Institute of California
- Sacramento Area Flood Control Agency
- Santa Ana Watershed Project Authority
- State Water Resources Control Board
- U.S. Army Corps of Engineers
- U.S. House of Representatives
- Water Education Foundation

To view the Summit agenda or watch a video of the event, visit www.watereducation.org

What is Water 360?



Water 360 is a campaign launched by the California Department of Water Resources in April 2013 to help refocus and strengthen the collective efforts of California’s water management community by advancing integrated water management. Integrated water management is a framework for planning and implementation that melds the objectives of improving public safety, fostering environmental stewardship and supporting economic stability to lead to sustainable water resource management. Integrated water management is not a new concept in California, and great strides have been made in the last decade to utilize the approach, particularly at the regional level. The Water 360 Campaign builds on these early successes and calls for broader application across the entire state.

Water 360 recognizes that we are all connected by the water cycle. We depend on and affect each other in the use and management of our State’s most precious resource. A change to one part of the cycle impacts us all. We are faced with an uncertain future in terms of a changing climate and environment, a volatile economy and an evolving society. Moving forward, we share equally in the responsibility to advance integrated, multi-benefit solutions to meet the challenges. A “360-degree” perspective is needed to measurably improve performance and resiliency of the entire water management system.

DWR is committed to lead this effort in close partnership with all stakeholders, particularly State, federal, and local agencies. Success will require improved cooperation and alignment at all levels of government and stable financing to deliver multi-benefit, long range and fiscally responsible solutions.



PUBLIC SAFETY

ENVIRONMENTAL STEWARDSHIP

ECONOMIC STABILITY