

Land Use and Water Alignment

Office of Planning and Research

Process

In the summer of 2015, the Governor's Office of Planning and Research (OPR) began outreach asking the question, "How do we better align land use and water?" We conducted about 100 phone interviews and hosted six regional workshops around the State and two statewide conversations in Sacramento. The phone interviews and statewide discussions drew from a range of leaders in the water and land use sectors. The workshops were invitation only and included local leaders who were, as we described it, "leaning forward" on aligning land use and water at the local level. The participants included local government officials and staff, water agency leaders and staff, non-governmental organizations, consultants, lawyers, tribes, and others. We developed our invitation lists by consulting with locals and asking them who, in their region, was leaning forward on the issues. Each workshop had a local planning team that helped to guide invitations and the agenda.

The conversations and workshops were designed to accomplish two things. First, they were designed to provide OPR with a contextualized understanding of how land use and water currently align in practice. Second, they were designed to provide an opportunity for high level brainstorming across the sectors to identify opportunities to improve alignment. The workshops were structured to promote dialogue and understanding between the sectors, define optimum alignment, and to produce high level recommendations.

The information collected during this outreach process will inform the recommendations that OPR will develop in accordance with the Water Action Plan.

Optimum Alignment

Workshop participants were asked to begin by identifying key elements of optimum alignment or to imagine how things would work under conditions of optimum alignment. Each workshop's vision of optimum alignment became the focus for generating recommendations designed to achieve optimum alignment. The following definition of optimum alignment and the elements described below are a conglomeration of the various discussions

What is optimum alignment?

Participants described optimum alignment to occur when land use and water plans, decision-making, and management are coordinated in a way that achieves maximum efficiency, consistency, sustainability and resilience in the use and preservation of both resources and in

relationship with other resources. In addition, optimum alignment maximizes benefits to and minimizes undesirable impacts on people, wildlife, the economy and the environment.

Conditions supporting optimum alignment

Over the course of OPR's outreach on the topic of land use and water alignment, several elements emerged as key conditions to support optimum alignment. At this high level there was broad agreement on the elements and the importance of having a clear vision to work toward. The common elements of optimum alignment are described below in the aspirational manner that they were reported to OPR.

Favorable Political Climate

Strong political leadership creates a favorable climate for alignment. There are policy and political tools to make difficult decisions while equitably balancing competing interests and sustainably managing land and water resources. There is respect for all voices, especially tribal voices that can offer traditional knowledge and understanding of California's natural systems. Trust and cooperation will be hallmarks of the political climate. Interactions will be founded on common language, transparency, and an engaged and invested public.

Commitment to Data Collection, Quality, and Common Metrics

There is broad agreement that the old adage that you can't manage what you don't measure certainly applies to managing land and water. Water and land decision-makers and managers commit to collecting and sharing high value, high quality data. The data is compatible and consistent and all agree to common metrics and benchmarks with a focus on outcomes over process and a clear understanding and accounting of the cumulative impacts caused by actions across sectors.

Aligned Drivers

Political processes governing land and water are contingent on one another. Funding, political influence, and other drivers are assembled to promote and reinforce alignment of land and water. The cost of water reflects the actual cost of use while still allowing for affordable access to water for basic human and environmental needs. Federal, State, and local requirements assure that land and water related requirements are consistent with each other within each segment of government and across them. Resources and incentives are structured to promote aligned decisions. Regulatory and permitting processes are streamlined and realigned to produce desired outcomes across sectors. Our old artificial distinctions between land, surface water, groundwater, water quality, and water supply is replaced by an integrated systems approach to managing our resources that stretches beyond land use and water and includes other key resources like energy, air, and food and is reflected in our regulatory and permitting process.

Long Term Planning and Management Horizon

Conditions in California continue to change. Planning, management, and decision-making incorporate a longer term perspective that meaningfully accounts for climate change and population growth. All areas of the state are actively co-managed to achieve and maintain resilient land and water systems able to withstand and make use of greater climatic variability. Land and water managers, along with many others, join together to work toward greater predictability and fewer disruptive events like wildfires, water shortages, and floods.

Participant Recommendations

The following is a summary of the high level recommendations that we received from the brainstorming sessions during the workshops. The recommendations provided were not unanimously held by all participants. They reflect a consolidation of recommendations that were suggested in at least 2 separate workshops or were recommendations unique to a region and widely held in that region.

The recommendations are presented in six categories: Data/Information/Tools, Governance, Financing, Laws/Regulations, Planning/Management, and Public Education/Leadership. These categories were created post hoc to organize the recommendations and capture the main themes of discussion.

Data/Information/Tools

Participants broadly agreed that better access to data and greater consistency across data, metrics and tools would improve the alignment between land use and water. Specifically, workshop participants identified a need for more active state leadership in making data available in one location, establishing consistent data standards and metrics, and providing publicly accessible models, platforms, and tools along with the necessary technical assistance to make use of the publicly accessible tools. The participants also identified key areas where additional or more organized information is essential. Those areas included surface and groundwater interactions, groundwater recharge areas, climate scenarios, and a new model of unimpaired flows that accounts for impacts on groundwater quality. A summary of specific recommendations appears below.

Data Access

- Better sharing of data from federal and state to locals and more real-time data
- A state commitment to developing and maintaining data and tools in one clearinghouse for, at least state data, but ideally state, local, and federal data and technical assistance for using the data and tools
- A clearinghouse of all regional and local reports and plans with a mechanism to map or analyze documents reflecting on the same geography
- Explore possible role of LAFCO as a county information hub
- State supported and integrated Information Technology and common, publicly available platform to inform decision-making across jurisdictions

Data Quality and Consistency

- Consistent scalable datasets for a watershed across jurisdictions with comparable metrics and data transparency

- Agree on a baseline at the watershed scale
- Establish clear and consistent data standards and metrics that allow data sets to be used together, especially for groundwater management
- Consistent methodology to calculate water demand across various uses

New Data and Information

- Dramatically improve knowledge of surface and groundwater interactions
- New model for unimpaired flows that accounts for impacts on groundwater quality
- Better understanding of impacts of new well drilling on adjacent wells
- More reliable map of groundwater recharge areas
- Better understanding of the environment's need for water
- More transparent data to support water markets
- New tool to understand impacts of land conversion on water

Governance

There was broad agreement across the workshop participants that fragmented governance is a barrier to better aligning land use and water. Many of the recommendations were focused on overcoming fragmentation, but assuring that local control is maintained. We heard a good deal of interest in revisiting some level of watershed or regional scale governance or coordination including the ideas of creating watershed councils, improving and giving IRWMs teeth, creating something like the Coast and Ocean Roundtable, regionalizing groundwater sustainability agencies and expanding them to cover surface water, and consolidating water districts. There was also interest in specific areas including resolving rural community land and water challenges and prioritizing water uses and/or watersheds for restoration. LAFCOs were a topic of discussion at most of the workshops and participants wondered if LAFCOs could serve as a coordinating entity across land and water. A summary of specific recommendations appears below.

Regionalized Governance

- Consolidation of water-related districts at the regional scale
- Creation of watershed councils
- Create a governance structure like the Coast and Ocean Roundtable
- Regionalize groundwater sustainability agencies and expand their authority to include surface water
- Watershed scale entity, perhaps an improved IRWM, that, by virtue of its membership, has authority over all of the land and water planning and decision-making within the watershed

State Governance

- Stronger interagency coordination at the state scale
- More state agency engagement at the local level, for example SWRCB could assign regional liaisons who live and work in each region with a commitment to continuity (ie: the same person stays for a minimum of 5 years)
- More state engagement in helping locals to identify responsible parties for legacy and non-point-source contamination
- Set statewide guidelines and outcomes and leave specifics to local or regional decision-making
- Assure equitable water markets
- More state engagement and better coordination with the federal government on land use and water alignment

Local Governance

- County planning departments should have water experts on staff
- Counties should adopt well spacing requirements
- Well permits should be discretionary (ie: trigger CEQA) in most, if not all, cases

- Assure that existing community water needs are met before approving new communities
- Integrate water data into short-term and long-term land use permit decisions
- Counties should adopt stewardship overlay zones

Specific Areas

- Identify and take key steps to resolve rural community water and land use challenges
- Prioritize water uses
- CDFW should coordinate with local entities to identify highest priority watersheds for restoration
- Governance structures must take on the tough water issues
- Need a fix that allows Investor Owned Utilities to be full participants in JPA governance, perhaps mirroring the EIFD strategy for including IOUs

LAFCO

- LAFCOs should have the same authorities over JPAs with water authority as they have over water districts
- LAFCOs should be a stronger bridge between land use and water
- LAFCOs should have authority to require information from water-related Mutuals, JPAs, and Investor Owned Utilities

Financing

Not at all surprising, participants had a long list of funding gaps when it comes to aligning land use and water. Consistent with polling data, participants generally favored a public goods charge even after spirited discussion with participating water agency representatives who tended to oppose the idea. In addition, participants indicated a desire for better coordination across state funding sources and identified a need to reform water rates.

New Funding

- Public goods charge
- Rebuild small and mid-sized logging operations and mills and assure that forest management practices support their long term viability by instituting sustainable forest management practices on state, federal, and private lands

Funding Gaps

- Local government planning
- Need to expand land and water funding
- Incentivize wood products market
- Provide financial assistance to counties facing compounding impacts from fire, tree mortality, drought, etc.
- Assess and restructure policies that make it cost prohibitive for rural land owners to be good stewards of the land (example: barter, sell, trade rules for wood products)
- Work with locals to develop new financing tools like PACE that give homeowners a means to be good land and water stewards
- Funding source for water staff at the local government scale to facilitate better use of water data in the local government setting and to allow for staff time to participate in things like IRWM
- Funding for in-stream flow monitors
- State investment in mapping recharge basins and collecting groundwater data
- Salton Sea
- Sewer system transition
- Upper watersheds/forest management
- Consistent funding for Resource Conservation Districts
- Watershed Coordinators
- Sustainable Groundwater Management Act Implementation

Coordinated Funding

- Align requirements across grant sources
- Create a Central Coast Water Conservancy

Finance Reform

- Institute water rate structures that drive customers to be good water stewards while assuring that water agencies can cover their basic operating costs
- Adjust water pricing to more closely reflect the value of water
- New strategy for state grant making that reduces the transaction costs for financially strapped local governments
- Prop 218 reform

Laws and Regulations

Not unlike the more general sentiments about laws and regulations, workshop participants were interested in means to streamline statewide regulation to achieve desired outcomes. This was a common sentiment across most participants including local environmental groups. On the other hand, participants were interested in means to strengthen local control.

Statewide

- Streamline CEQA, perhaps by creating statewide programmatic permits using BMPs under CEQA
- Create a state ombudsman to shepherd big projects through the permit process
- More flexible review of air quality impacts that balances other urgent statewide priorities like tree removal or create a rural air quality allowance that balance the value of rural carbon storage opportunities with the special needs of rural communities
- Extend 1038(k) regulations for 3 years (already extended for duration of tree mortality emergency)
- Align state RHNA requirements with water availability
- Create more consistency in regulation of CPUC-regulated and public water agencies
- State should adopt outcome-based/performance-based watershed outcomes
- State should evaluate whether regulations are actually achieving the desired outcomes
- Restrict conversion of rangelands to crops unless a groundwater sustainability plan is in place
- State should take action to stabilize water supply from the Colorado River to the Salton Sea
- Lower “show me the water” threshold
- Require new land use approvals to be subject to SGMA GSP
- Give General Plans more teeth
- Streamline “do no harm” water transfers
- Require state approval to establish a special district
- Create incentives for shift to solar in retired agricultural areas
- Require an accurate water budget before water transfers are approved

Local

- Mandate a reliable quantity of water in fractured rock well and set more rigorous standards for well capacity testing before approving new development
- Local ordinance to require sewer line extension at transfer of sale
- Define appropriate land uses based on water availability (through zoning)
- Do not allow growth in flood planes or recharge areas
- Prevent new domestic wells within water system boundaries. Require hookup instead.
- Explore the value of decentralized solutions
- Set well depth and flow requirements

- More enforcement of proper well abandonment and well seal standards
- Require water quality testing of newly drilled wells
- Counties should revise right to farm policies

Planning and Management

Many of the workshops included an interesting discussion initiated by the land use participants who expressed an interest in better understanding how water fit into their responsibilities, but also expressed the challenges of receiving multiple water related documents from multiple agencies without any clear understanding of how they relate to each other. This led most of the workshop discussions toward means to solve this challenge. Most workshops discussed the need for planning and management that can be scaled up and down according to jurisdiction. The participants also discussed the need for procedural requirements that assure the consistency of information across sectors, the need for stronger collaboration across sectors, and the need for shared and consistent principles and goals.

Planning and Management Scale

- Create a water budget that can be scaled up to a state scale and scaled down to watershed, groundwater basin, water district, and local land use scales
- Create a watershed scale water management strategy
- Use scalable water budgets to streamline water supply assessment process
- If the current system persists with separate plans and management by jurisdiction, require meaningful integration and alignment at the local and regional scales
- County-wide, long-term master water supply plan
- Explore the potential for a groundwater sustainability plan to become the comprehensive water plan for the watershed
- Require sustainable, basin-wide decision making

Process

- Require water agencies to use relevant general plans to project demand
- Develop local permitting process for cannabis production
- Counties use water balance to assure water availability before approving land uses
- Either integrate general plans, IRWMs, UWMPs, California Water Plan Update and other related planning documents or replace with watershed scale water budgets and plans that fulfill and integrate the same outcomes and scale up to statewide water budget and plan
- Reintroduce natural fire regime
- Include Cal Fire firesafe councils in land/water planning and implementation where appropriate
- Require urban water management plans for small water systems
- Establish a tiered approach to water management that might start with leak detection and conservation, then recycling, and finally expanding supplies to assure maximum efficiency in the use of the resource
- Developing drought-proofing strategies at the watershed scale assuring protection of key resources like the Salton Sea and upper watershed systems

- More coordinated management of surface and groundwater both for supply and water quality benefits
- Consider NCCP-like process to develop a county-scale map of protected areas that preserve important water features like high recharge areas
- Using better data and real-time information about water and land use, create more flexibility in shifts of surface water time and location of diversions
- Develop a water cap and trade system
- Identify and implement more supply side solutions
- General agreement on the need to better address water in the general plan, but difference of opinion on whether it is best to incorporate water into existing plan or require a water element
- Include forestry issues in general plans

Collaboration

- Formally define interdependence and mutual needs shared among users and build and enhance partnerships, for example, around the Salton Sea
- Develop more opportunities to coordinate improvements across sectors, for example, cities could incorporate sewer improvements when other infrastructure or roadway upgrades occur
- Increase city participation in IRWM process or successor process
- Establish stronger and more direct coordination between land use and water jurisdictions when new developments are under consideration
- Assure meaningful water agency engagement in land use/habitat conservation planning
- Assure that there are land use people in water agencies and water people in land use agencies to promote collaboration

Planning Principles and Goals

- Match solutions to specific timeframes or planning horizons
- Develop a conceptual framework to understand natural systems, communicate framework and align natural and human systems
- Maximize efficiencies across land and water and other sectors like energy and food
- Increase and utilize water reuse where appropriate across the state
- Commitment to helping each other meet needs across communities and sectors
- Counties are responsible for small systems they approve
- Optimize the scale of infrastructure to meet needs, for example, regionalize sewer treatment where appropriate and consider package plants where regionalization may not be appropriate based on the current and intended land uses
- Prioritize headwaters and forest management because of their key role in land use and water management
- Assure that water planning and management occurs through a larger sustainability lens

Public Education and Leadership

Participants in every workshop expressed some frustration and interest in seeing strong leadership around water issues, and to support the development of that leadership, stronger public education. Participants expressed a sense that political leaders are reluctant to make responsible water and land decisions because of the conflicting pressures they are under. There was a hope that stronger public support, bolstered by public education, could create a political climate that better supports good decision-making.

Leadership

- Stronger messages need to come from state leaders about the importance of aligning land use and water
- Develop coalitions with diverse politics, sectors, and government levels
- Stronger IRWMs with more teeth and more meaningful local government leadership could provide stronger regional leadership
- Create the political space and support to foster stronger political leadership
- Local political leadership to make hard land use decisions
- Provide local decision makers with data and tools to make hard decisions

Leadership on Specific Subjects

- Strengthen regional and state leadership for new infrastructure, including water trading and desalination
- Create adequate political space for constructive discussion of agricultural land uses
- If IRWMs are identified as a key vehicle for better land use and water alignment all government agencies should embrace IRWM and incorporate it into their programs
- State should take strong leadership in setting standards for and doing actual groundwater data collection
- State should lead efforts to set on-site reuse standards
- State should prioritize across water uses and provide clear guidance to locals to implement priorities
- State should set clear expectations regarding sustainable, including prioritizing the needs of disadvantaged communities land use, and provide tools and resources that help local elected to get to “yes” without jeopardizing their elected position (note: participants indicated that this is key because even when an elected stands up and does the “right thing” but is voted out it is still a net loss)
- Use relationships developed in IRWM as a foundation for whatever the cross-sector, watershed scale alignment entity becomes

Public Education

- State, regional, and locals should collaborate to better educate urban communities about the costs and value of aligned land use and water decisions and stewardship in rural communities including headwaters and working lands
- Increase awareness of importance of participation in cross sector, watershed scale planning and decision-making including General Plans, IRWM and Sustainable Groundwater Management
- Educate contractors and service industry workers to help them anticipate important land use and water alignment issues in their practice
- Public education around value of water and long-term sustainability
- Define resiliency
- Toolbox of best-case scenarios with examples of success
- Public education and outreach around sewer system/infrastructure
- Help Californians to not take water for granted. One participant suggested that every person in California should have to go 2 days without water to give them a better appreciation
- Showcasing water agency and local government environmental and species protection activities and benefits
- Include basic homeowner education as part of real estate transactions
- Place special focus on public education on good stewardship of groundwater because it is invisible and individual land owner activities can impact the health and sustainability of groundwater resources