

Executive Summary: A New Governance Structure

California needs a structure for water governance that has planning and management of the state's valuable water resources as its core mission. Such a structure is essential for California to address the supply challenges ahead while supporting its environment, accommodating its population growth and ensuring the conditions that allow its economy to thrive.

In 2009, the governor and Legislature enacted bold reforms that will require coordinated actions to reduce urban water use, help bolster the Sacramento-San Joaquin River Delta's environmental health and improve water supply reliability for water users who depend on the Delta.

The 2009 reforms were aimed at helping the state adjust to the reality that water supplies will no longer grow as surely as the state's population or its economy. The new laws make clear that both the state and regional governments play indispensable roles in achieving permanent change in how Californians use water. They also recognize that greater water conservation by urban users can expand supply through savings. Likewise, a more developed water transfer system that encourages growers to direct water to its most beneficial use will improve agricultural water use efficiency.

California's conflicted water governance structure, however, will impede progress in achieving these policy goals. Key functions at the state level are not aligned in a way that will allow California to adequately manage and plan for the future, or the full potential of these water reforms.

Currently, functions that need to be closely coordinated are dispersed among separate departments in California's government. Water planning and management in the Natural Resources Agency's Department of Water Resources are separate from water rights accounting and enforcement in the State Water Resources Control Board located in the California Environmental Protection Agency. Instream flow recommendations that should be used to determine supply are developed by both the Department of Fish and Game and the State Water Resources Control Board, and are separate from planning and management in the Department of Water Resources. Bond spending on

natural resource programs operated by these departments is not well-coordinated and oversight is diffused. The presence of the State Water Project within the Department of Water Resources and the administrative requirements it must fulfill, represent a conflict to important stakeholder groups and undermine the effectiveness of the department's management and planning activities.

The state lacks the comprehensive view of water use and demand needed for meaningful management and long-term planning. As a result of the state's confusing water governance structure, California cities and growers face increasing risk to their water supply, as environmental needs are not fully factored into water rights administration and enforcement, in some cases contributing to declines of endangered species.

For California to successfully manage the water it has and make useful plans for its future, water planning, management, rights and enforcement need not only to be located together, but fully integrated. This will require coordinating planning and management with regulatory responsibilities. Though this has raised some concern, it is essential to ensuring these functions are informed by a cohesive set of data on water supply, demand and use. It also is essential to ensuring the functions are guided by a comprehensive strategy on developing new sources of water supply and maximizing the benefits that can be derived by every gallon.

Planning for Uncertainty

In both urban and agricultural arenas, state government has an important role in ensuring that water is put to its most beneficial use, by creating incentives to use water more wisely and preventing waste. It also has a responsibility for consistently implementing and enforcing existing laws and gathering the data and directing research to reduce gaps in information on water use and supply.

The past three years have been a period of tremendous flux, resulting in a huge increase in the level of uncertainty about what to expect. Certainly, a driver in the past three years has been drought, which resulted in severe drops in water supplies. The drought forced growers to idle acreage and California cities to impose stiff water conservation measures, and it sharply reduced the amount of unimpaired flow of water to Delta habitat and wildlife needs.

The fundamental source of uncertainty has been the reallocation of water to the environment over time through legislation. This reallocation has

proceeded haltingly, in no small part due to the state's inability to develop a comprehensive approach to water management and planning. Lack of funding has played a role in the state's lack of capacity, as has lack of political will to enforce existing laws, leading to reallocation through litigation. Environmentalists, as evidence that this reallocation has been incomplete, point to the population collapse of endangered fish species, which forced the shutdown of commercial salmon fishing off the California coast for two consecutive seasons.

The decline in the populations of endangered smelt and salmon sparked litigation that led to Delta pumping restrictions, exacerbating the impact of the drought on farmers. The restrictions were imposed, lifted, then re-imposed and lifted. This increased the uncertainty surrounding water deliveries through the pumps, and raised new questions about the sturdiness of the Endangered Species Act that formed the basis of the federal court litigation.

The influence of the federal court as the central player in California's day-to-day water management underscores the need for the state to develop and execute an overarching statewide strategy for water planning and management that can address and resolve critical issues before they reach the courts. As California has seen time and again, failure to do so leaves state government vulnerable to having courts impose legal solutions that may not best serve the state's overall needs or advance its goals. Despite the courts' best efforts, policy driven by litigation very often reflects the objectives and priorities of those with access to the courts to the exclusion of those stakeholders who do not.

Litigation will be a part of water governance regardless of structure. Uncertainty, likewise, will always be a part of the operating environment. To the extent the state can provide greater consistency, transparency and accountability through a more cohesive and focused water governance structure, the state can reduce legal and regulatory uncertainty in some areas and develop tools to respond to uncertainty in others, such as water supply. Central to this effort will be gathering data on water use and supply, as well as more focused research on the causes of fish population declines.

This requires a comprehensive approach to water supply management, one that integrates water supply assessment, water use and water rights, and the data collection that are foundational to these functions. While complete knowledge is impossible, more information can reduce uncertainty, and with it, the grist for conflict.

The state's ability to fulfill these roles, however, is hindered by an out-of-date governance system, one that does not adequately prioritize or

integrate the importance of water supply planning and management with water rights accounting and enforcement.

A Centralized Approach for Water Management

Based on expert testimony, extensive input from advisory groups, interviews and research over the course of a year, as well as past Commission examinations of Delta governance and of the state and regional water boards, the Commission recommends restructuring planning, management and oversight of the state's water resources into a centralized Department of Water Management within the Natural Resources Agency.

The Commission's recommendations build upon the policy foundation established by the significant water reform legislation package enacted in 2009 and are designed to create a modern governance structure to achieve the goals of the 2009 water reforms.

The new Department of Water Management should be the lead state agency for all water planning, management and water rights accounting activities. It would be California's key contact point for local and regional government agencies and districts for water use, planning and management. Likewise, it would be the primary contact for federal agencies, such as the U.S. Bureau of Reclamation, the Army Corps of Engineers, the Fish and Wildlife Service and the National Marine Fisheries Service. An important goal of the reorganization is to simplify and improve the state's relationship with the federal government.

The core of the new department should be the planning and management functions currently housed in the Department of Water Resources, most importantly Delta and Statewide Management and Integrated Regional Water Management, but also the department's flood protection and dam safety functions. The new department must take advantage of potential gains in efficiency that can only be achieved at the state level, such as developing strategies to further integrate and optimize the operations of state and federal surface storage facilities and developing new ways to build groundwater storage into a statewide water plan.

Integrating Water Rights with Water Management

In addition to planning and management, the Department of Water Management should have the responsibility of accounting for and administering water rights and enforcing water rights laws and regulations, as is common in other western states. These functions currently are under the State Water Resources Control Board. This

would enable the state to improve planning, better track progress on water conservation and efficiency, and improve the state's ability to develop incentives to change the way Californians use water.

Bringing together planning and management with water rights administration also would help streamline the water transfer process, which ultimately could direct more agricultural water to its most beneficial use, relieve pressure on growers who face chronic shortages and create a funding source for growers to invest in water conservation and water efficiency technology.

Greater integration of water planning and management with water rights administration also would allow the state to better track water use and demand, which are critical to planning for future supply needs. The ability to more accurately track use and demand requires a standard approach to determining instream flow needs for wildlife and habitat, a function now located in both the Department of Fish and Game and the State Water Resources Control Board. Once instream flow needs have been determined for important rivers and streams, the ability to measure water use through the system of water rights reporting – together with more vigorous enforcement of water right permit and license conditions – eventually would reduce illegal diversions and ensure that diverted water is put to reasonable and beneficial use.

The new California Department of Water Management, through its scientific research, water supply analysis and water management programs, would support the activities and goals of the new Delta

Sacramento-San Joaquin Delta Reform Act of 2009

For years, the state's water debate has focused on the Sacramento-San Joaquin Delta, the crisis of its accelerating environmental decline and the threat to its ability to supply water to much of the state. The politics and litigation surrounding the Delta's crisis left little room for a broader view of the state's water needs.

This started to change when the 2007 Delta Vision Task Force Strategic Plan concluded that statewide conservation strategies to reduce reliance on the Delta as a water supply were central to its environmental stabilization. Legislators advanced policies for both the Delta and for statewide measures in a 2009 package of water laws that marked the biggest reforms since the Porter-Cologne Water Quality Control Act of 1969.

The new water policy of the state of California is to reduce future reliance on the Delta through a statewide strategy of investing in improved regional supplies, conservation and water use efficiency. Each region that depends on water from the Delta watershed is required to improve its self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects and improved coordination of local and regional water supply efforts.

Specifically, the 2009 reforms established goals for urban water conservation, repealed reporting exemptions for Delta water users, increased water use reporting, strengthened water rights enforcement and required the State Water Board to develop instream flow criteria for the Delta in 2010 and develop timetables and cost estimates for assessing instream flow criteria for key watersheds that feed the Delta by 2012.

Source: California Water Code. Section 39, Division 35, 85021.

Stewardship Council, taking a statewide perspective to complement the council's Delta focus. A key bridge will be the role of the Delta water master, a position created as part of the 2009 water reforms. Currently, the Delta water master is designed to be a part of the State Water Resources Control Board. As envisioned by the Commission's reorganization, the Delta water master would join the Department of Water Management as part of the shift of the Division of Water Rights to the new department, and in doing so, also would link the Delta water master, if indirectly, to the existing water master program now in the Department of Water Resources.

Water Reforms Create Water Master for the Delta

The Legislature established the Delta water master as part of the 2009 water reforms. The position was invested with a high degree of independence within the Delta to implement and enforce existing water rights laws as well as permits, licenses and decisions issued by the State Water Resources Control Board. Within the defined area of the Delta, the Delta water master has the authority to require monitoring and reporting of water use, as well as the authority to approve temporary urgency changes in conditions on water rights permits or licenses. The Delta water master also has the authority to issue a notice of proposed cease-and-desist orders for illegal or unauthorized water diversions. As part of its responsibilities, the Delta water master will provide reports to the State Water Board and the Delta Stewardship Council.

Typically, water masters are assigned to regulate watersheds or basins where there has been an adjudicated finding that all available water has been appropriated. The Department of Water Resources established the water master program in 1924 to ensure water was allocated according to established water rights as determined by court adjudications or agreements by an unbiased, qualified person, with the aim of reducing water rights litigation and civil lawsuits.

The Department of Water Resources has eight full-time field water masters in northern California, who regulate up to 200 water diversions. The department also serves as water master for two southern California groundwater basins.

Sources: State Water Resources Control Board. Also, Department of Water Resources. Also, California Water Code. Section 39, Division 35, 85021.

By consolidating functions that currently exist in different departments, and in one case, a different agency, the Department of Water Management will be able to organize programs that serve state level functions and separately, programs that create incentives for regional change in urban and agricultural water use.

Water Management. The state's existing water management programs should continue to focus on research and data collection and build on the existing research efforts on urban and agricultural water use efficiency and conservation. This group already collects data on water supply through a combination of state and federal river and stream gauges, reservoir-level monitoring, snow pack measurements and climate assessments used for irrigation management services.

The instream flow unit from the Water Branch of the Department of Fish and Game should be added to this group. The instream flow unit is responsible for establishing how much water must remain in a stream or river to meet habitat needs, a process that takes into account natural flow variations as well as various species' reproductive cycles. Also included should be instream flow assessment activities now in the State Water Resources Control Board.

Moving the Division of Water Rights to the Department of Water Management would allow data on water use from annual water right permit holders to be used to build a more detailed understanding of how and where water has been used, important for water management. The 2009 water reform

legislation increased the reporting requirements and reporting frequency for water rights holders as well as increased penalties for failing to report or for filing inaccurate reports. Water use reports now can be made electronically, enabling the Division of Water Rights to build a database that can be analyzed more easily. The data collection group should serve as a data repository to leverage and support the work of the other entities, such as the University of California’s water resources center archives.

Though the new legislation requires triennial reporting, currently, little is known about water use by riparian rights holders, except in cases where, through a formal process, a stream or river’s watershed has been declared fully appropriated. To the degree that diversions by riparian rights holders represent a sizeable portion of the water used in some watersheds, properly managing supply and planning for current and future needs would benefit from a more complete analysis of when this water is diverted and in what amounts.

At the state level, even less is known about groundwater use, though research has shown that groundwater overdraft is a major problem, resulting in higher pumping costs, damage to connected streams, increased salt levels and, in coastal areas, salt water intrusion. Under the 2009 water legislation, local agencies are required to monitor the elevation of their groundwater basins, though there is no requirement for monitoring or tracking groundwater pumping. If the local agencies do not set up monitoring programs or fail to report groundwater elevations,

Key Functions of Department of Water Management

Water Management	Water Rights Administration	Water Planning
<ul style="list-style-type: none"> ▪ Measuring water supplies and water use throughout the state. ▪ Ensuring efficient use of existing storage capacity. ▪ Environmental and scientific research and analysis, including instream flow analysis. ▪ Data collection to support irrigation management. ▪ Flood protection. ▪ Dam safety. ▪ Facilitating water transfers. 	<ul style="list-style-type: none"> ▪ Tracking how much water has been committed to users through water right permits and licenses. ▪ Enforcing the water right permit system to prevent illegal or unauthorized use. ▪ Issuing water right permits or changing existing permits where un-appropriated water has been demonstrated to exist. ▪ Ensuring water transfer applications meet water right permit conditions. 	<ul style="list-style-type: none"> ▪ Anticipating future needs and developing programs to reduce water use and increase water use efficiency. ▪ Developing storage strategies to increase future supply flexibility, including reoperation of existing state and federal facilities. ▪ Developing the California Water Plan. ▪ Overseeing the Integrated Regional Water Management program and other grants and loan programs.

the state can step in to implement a program. The new law also requires the state to establish a priority schedule for monitoring groundwater basins and review groundwater elevation reports, as well as make recommendations to local entities to improve the monitoring of programs. Under the reorganization, these groundwater assessments would be part of water management.

Water Rights Administration. A key component of managing available water supplies is accounting for how much water has been committed to water users. As in other states, this is handled through a system of water rights. In California, this activity is administered by the Division of Water Rights in the State Water Resources Control Board.

One group in this division collects data on water use by water rights holders, processes applications for water rights and changes in existing permits and licenses. Another group is responsible for investigating water rights violations, such as unauthorized use or illegal water diversions. Data on water use should be integrated into the water management group's supply analysis activities. The process of accounting for how much water use has been authorized under post-1914 appropriative water rights and claimed under other water rights would be organized under the water rights administration. This function also would include the administrative process of reviewing applications for water rights permits and licenses and petitions for changes. Enforcement activities should be organized into an office of enforcement, separate from the application processing activities and data collection, and insulated from programs designed to change water use patterns.

The Commission's recommendation relocates the Division of Water Rights into the new Department of Water Management so that data on water use and water supply and analysis of instream flow needs can be more easily and routinely integrated into decisions on issuing or adjusting water rights permits and licenses.

In California, the amount of water that rights holders are authorized to use is far greater than the average annual amount of surface water. This puts a premium on knowing how much water rights holders actually use as well as how much water is available. More closely linking data collection and analysis of water use and water availability with water rights administration will increase the ability of the water rights system to manage demand according to established sustainable supply.

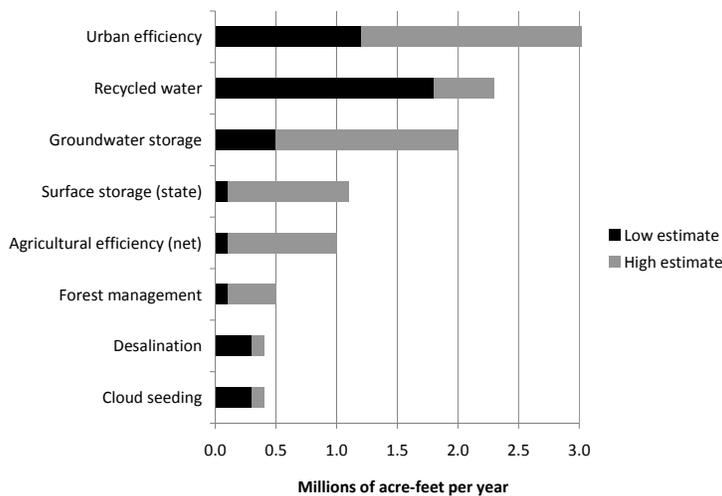
As part of the reorganization, water rights permit and license applications and change petitions should be handled administratively, with a process for public input, using hearing officers and, for appeals, administrative law judges.

Water Planning. In water planning, the new department should focus on statewide supply strategies to complement its programs at the regional level in order to reduce water use and extend existing supplies through recycling.

The new department should extend and refine the Integrated Regional Water Management process that began a decade ago within the Department of Water Resources. This effort should incorporate groundwater management and storage strategies into a broader look at how the state can best use existing state and federal surface storage. Over the past few years, the department’s grant and loan programs have been refocused, where possible, to build on the model of successful regional planning processes that address supply issues and develop strategies to increase conservation, protect groundwater and meet mutual infrastructure needs.

The integrated planning strategy recognizes that creating new water supplies requires a portfolio approach and that different tactics work to varying degrees in California’s vastly diverse regions.

Potential Sources of New Supply



Source: California Department of Water Resources. 2010. Bulletin 160-09.

The state has started using bond money to leverage local funding to encourage local governments and agencies to work together to define their water management objectives and priorities, coordinate investments for greater efficiency, as well as improve collaboration with diverse interest groups. This strategy helps to spread best practices as well as to create responses to local needs that fit local conditions.

The program's long-term success will depend on the state developing a more sustainable funding source.¹ The bond money has been slow to be awarded, in part because budget delays and the global credit crisis impeded bond sales in 2008-09, but also because of the time needed to develop the guidelines and grant criteria, and the lack of an overall investment strategy for the department's bond spending.

Based on past experience, the Department of Water Resources estimates that an investment of \$1 billion in the Integrated Regional Water Management program could produce water supply benefits of 1.2 million acre feet a year, as well as other benefits for water quality, the environment, flood protection and other regional objectives.²

While the state can help local efforts to change water use, there are some state-level actions which have the potential to produce immense benefits for California as a whole. The state can increase the amount of water available for use and better perform its environmental protection role by managing California's state and federal reservoirs as a single system, and optimizing their operations to maximize storage. The process would require working with regional groups to integrate groundwater storage into a broader state strategy.

Under the Commission's proposed reorganization, the Department of Water Management would continue the state's investigations of storage strategies, including re-engineering reservoir operations to increase the flexibility of existing state and federal storage capacity.

Expanding the Role of the California Water Commission

In its June 2009 report, *Bond Spending: Expanding and Enhancing Oversight*, the Commission recommended the state revive and reconstitute the California Water Commission as the California Natural Resources Commission and charter it with prioritizing and overseeing bond-funded programs currently managed within the California Natural Resources Agency.

The water reform legislation enacted in the fall of 2009 re-formed the California Water Commission as part of a proposed water bond ballot measure. Now that its members have been appointed, the water commission should be given oversight responsibilities for the resource-related general obligation bonds. These bonds include those approved by voters in 2002 and 2006 as well as previous bond programs that have not issued already authorized bonds for programs in the Natural Resources Agency and other resource-related programs funded by bonds,

such as water quality improvement bonds in State Water Board programs or drinking water improvement bonds administered by the Department of Public Health.

The commission should award bond-funded grants and loans based on a prioritized list of proposed projects and programs that improve water supply, water quality, water conservation, water use efficiency and integrated regional water management planning and implementation. The commission should ensure that the programs funded through the bonds have strategic plans for the planned spending, that projects proposed for funding are ranked by priority, as done for bond-funded transportation projects by the California Transportation Commission, and that all bond-funded projects have performance measures and publically available progress reports.

The California Water Commission also should have the front-end role of setting guidelines for minimum qualifications and competitive criteria for Integrated Regional Water Management plans, which would separate the actions of developing the guidelines from administering the grant and loan programs, an activity that would reside with the Department of Water Management. The commission should work with the Department of Water Resources to further transition to funding for integrated plans from single-purpose funding programs, or require requests for money from single-purpose funds to be consistent with an approved, broader plan.

The Department of Water Resources also should work with regional partners to develop outcome measures so that the department can assess the effectiveness of its bond outlays and add to its library of best practices, when warranted.

An Independent State Water Project

One obstacle to locating the Division of Water Rights within the existing Department of Water Resources is the department's operation of the State Water Project. Locating the Division of Water Rights in the same department that holds a sizeable percentage of California's water rights permits and licenses would present a conflict that would undermine the state's ability to credibly administer and enforce water rights. Water rights and water resources previously had been located together until the 1956 reorganization that created the Department of Water Resources, and separately, a Water Rights Board, which eventually was merged with the State Water Quality Control Board to become the State Water Resources Control Board.

California's existing governance structure for water planning and management reflects the priorities of the past. The Department of Water Resources was created more than 50 years ago to plan, design and construct the State Water Project, then and now California's biggest infrastructure project. Now complete, the project functions as a utility and no longer fits in the Department of Water Resources, where it dominates the agenda of a state department that also is responsible for water planning and management and where these dual missions often conflict.

Additionally, the project is struggling to maintain its operational efficiency as it is increasingly constrained by the structure and requirements of operating within a state department. Civil service rules and contracting requirements hinder the project's ability to hire and retain skilled employees, perform needed maintenance and purchase key inputs, such as electric power, at the most competitive prices. When restrictions on pumping were in place, the availability of the project's pumps was a critical issue. To the extent that the department could not, because of maintenance or repair issues, make full use of its facilities during the windows of time when pumping was allowed, the project's effectiveness in meeting obligations to water users was diminished. Unlike other large state infrastructure assets, the project has a steady and reliable revenue source more than adequate to cover its maintenance and operating costs. The project is immensely important to the state's economy and quality of life and it should be maintained and staffed to ensure it is able to meet its many obligations.

The Commission recommends that the state create a separate organizational structure to operate the State Water Project as a state-owned entity with an independent board whose members represent the interests of the state as a whole, including a robust economy and the "reasonable and beneficial" water use that the state constitution requires.

The water rights permits and licenses held by the Department of Water Resources should be relocated with the project. This would remove the structural conflict to joining the water rights function and the water planning and management functions while also allowing the new Department of Water Management to have independent regulatory oversight of the project through the added perspective of statewide management and planning. Such a structure should provide it with the operational flexibility enjoyed by the water districts that are its customers for water as well as its competitors for employees and electricity.

Changed Conditions Require New Model

Preparing California to thrive in an uncertain water future will require a strategy that employs multiple approaches at multiple levels of government. The state can best lead this effort with a focused Department of Water Management that is responsible for water management, planning and water rights administration.

The name of the new department is intended to reflect its more focused mission. Organizing water management, accounting and planning functions in the same department is designed to improve clarity, efficiency and accountability and reduce the distrust and uncertainty caused by the existing dual missions of the Department of Water Resources.

In recommending the reorganization to create the Department of Water Management, the Commission emphasizes that its goal is to position California to meet its current and future water challenges and, under one management team, align the functions needed to lead change.

The structure for the new department of Water Management should not be considered permanent, as should no governance structure. Though the changes the Commission is recommending are overdue, new policy directions and unforeseen developments very well could require new approaches.

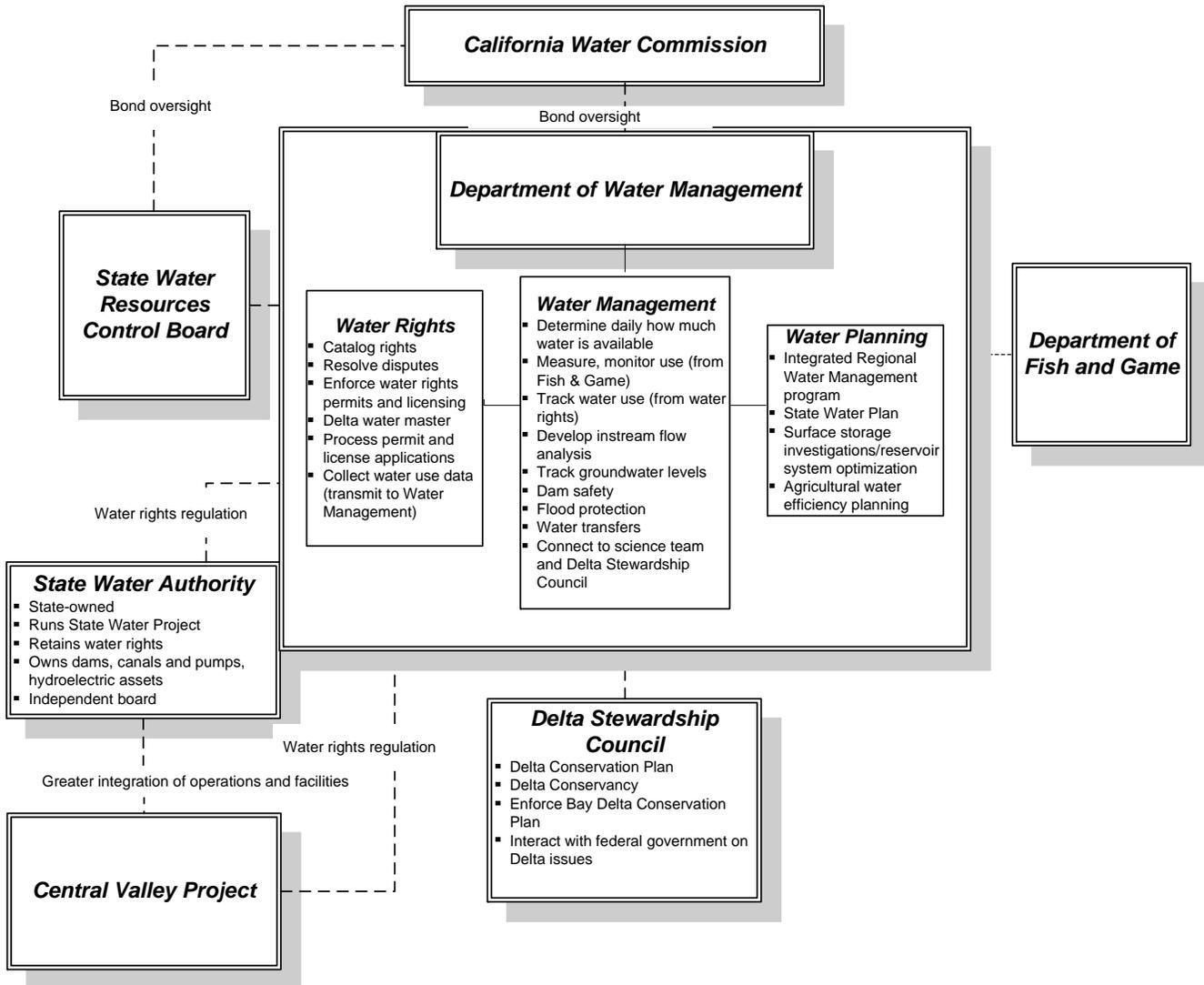
In the following chapters, the Commission examines the existing state governance structure and makes specific recommendations focused on strengthening and clarifying water governance. “Key Roles Not Aligned” assesses the functions that should be brought together into the Department of Water Management. “The State Water Project: An Enterprise Within Government” looks at the issues of operating the State Water Project within the Department of Water Resources and makes recommendations for change.

The Commission has found in this study and in its previous work that strong leadership and vision can make up for weak structure. A strong structure, however, generally cannot make up for weak leadership to consistently produce improved outcomes. Strong governance, however, can provide the accountability, transparency and efficiency to ensure that leaders are answerable for poor performance.

California’s leaders came together to pass a historical package of water reforms in 2009. The process provided a valuable education for our Legislature. The governance recommendations in this study are aimed at

ensuring the Legislature’s 2009 reforms achieve their goals. California’s leaders must act before the political will forged in 2009 disappears.

Model Creates Comprehensive Approach to Water Governance



Recommendation 1: To improve transparency, accountability and efficiency for distinct water functions within the current Department of Water Resources, the governor and Legislature should integrate water rights administration and accounting with water use planning and management functions, and separate these functions from water supply and delivery operations. Specifically, the governor and Legislature should:

- ❑ Create a new Department of Water Management under the leadership of a department director within the Natural Resources Agency. The new department should consolidate management and planning functions of the Department of Water Resources with the Water Rights Division of the State Water Resources Control Board and the instream flow group of the Water Branch of the Department of Fish and Game. The department should be the lead agency for:
 - ✓ Collecting and monitoring data on water use and establishing benchmarks for water availability for both current and long-term environmental, agricultural and urban needs. It should coordinate its work with the Delta Stewardship Council's Independent Science Board to develop a greater understanding of how instream flows interact with other threats to endangered species.
 - ✓ Managing current supply and demand by:
 - Incorporating current system management functions from the Department of Water Resources.
 - Making greater use of data on water use, through water rights reporting and water availability through instream flow analysis, to balance environmental needs and the needs of other water users.
 - Expanding operating relationships with the U.S. Bureau of Reclamation and Army Corps of Engineers to enhance more integrated use of reservoirs and conveyance systems.
 - ✓ Accounting, administration and enforcement of water rights by:
 - Processing water right permits, licenses and petitions administratively with the use of hearing officers.
 - Enforcing conditions of water right permits and licenses.
 - Creating a panel of administrative law judges with experience in water rights law to hear administrative appeals.
 - ✓ Planning for future supply and demand by:
 - Implementing the State Water Plan and developing strategies for further managing demand by providing technical expertise and incentives to regions to develop regionally integrated water plans for increased conservation and greater efficiency.

- Developing strategies for more efficient and integrated use of existing federal, state and local water infrastructure to maximize supply within environmental constraints.
- Prioritizing where infrastructure improvements can add the greatest system flexibility, efficiency or enhancement of ecosystem health.
- ✓ Managing bond-funded grant and loan programs related to water supply, conservation, efficiency and integrated regional water management planning, including development of performance measures to assess outcomes.
- ✓ Increasing economic efficiency and system flexibility through a streamlined water transfer process.
- ✓ Overseeing dam safety and maintenance.
- ✓ Taking responsibility for flood control and flood project integrity and inspection, levee repairs and floodplain management.

Recommendation 2: The California Water Commission should provide oversight of all natural resources bond expenditures, including current bond programs and future voter-authorized bonds in the Natural Resources Agency as well resource bond-funded programs in other agencies.

- The commission should oversee natural resources bond-funded expenditures and assess and publicly report outcomes of bond-related spending.
- The commission should award bond-funded grants and loans based on a prioritized list of proposed projects and programs that improve water supply, water quality, water conservation, water use efficiency and integrated regional water management planning and implementation.
- The commission should, with the assistance of a representative stakeholder advisory committee, develop criteria and guidelines for grant and loan programs, such as the Integrated Regional Water Management program, that are funded through bond borrowing.

Recommendation 3: The governor and Legislature should create a separate, independent publicly owned entity, the California Water Authority, to operate the State Water Project and other current functions related to or influenced by the project's operations to improve transparency, efficiency and accountability. The new entity should work to further integrate its operations with those of the federal Central Valley Project, with the ultimate goal of merging the two systems under state ownership. In establishing the new entity, the state should:

- ❑ Create an independent oversight board, whose members represent the perspectives of statewide interests critical to the project's operations as well as the project's impact on the environment. The board should be manageable in size, and members should be able to serve full terms, with the option to be reappointed to an additional term. Board members should elect their own chair. Candidates should be nominated through a stakeholder process. The governor should appoint the members who must be confirmed by the Senate.
- ❑ Allow the entity to raise money through revenue bonds for infrastructure improvements, to be repaid by revenues from project operations.
- ❑ Encourage the entity to increase operational integration with the Central Valley Project, including re-operation of storage facilities to advance co-equal goals of water reliability and ecosystem health.
- ❑ Encourage the entity to pursue contracting opportunities with local water distribution districts and joint powers authorities where such arrangements create demonstrable value to the state and water users.
- ❑ Allow the entity to create its own job classifications and compensation structures that are competitive with comparable jobs in California water and power districts in order to attract, retain and develop high-quality personnel essential to maintaining project reliability.
- ❑ Enable the entity to enter into contracts that allow it to be fully competitive in short-term and long-term electricity markets.
- ❑ Require the entity to release an annual report to the public, with details on its annual budget, long-term capital plans, outstanding debt, operating expenses and revenues.
- ❑ Make the entity responsible for:
 - ✓ Operating the State Water Project to meet the co-equal goals of ecosystem health and water supply reliability.
 - ✓ Operating the State Water Project according to the terms and conditions of its water right permits.

- ✓ Storing, conveying and delivering water to contractors in the most cost-effective manner consistent with the long-term sustainability of the State Water Project.
- ✓ Maintaining reservoirs, dams, canals, pumps and other infrastructure assets essential to providing system reliability.