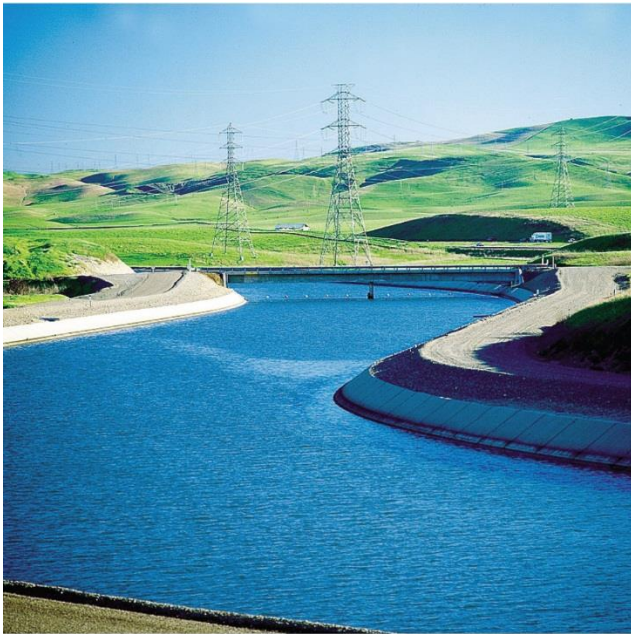


Executive Summary

(as amended in 2024)



Executive Summary

The Sacramento-San Joaquin River Delta is the grand confluence of California’s waters, the place where the state’s largest rivers merge in a web of channels—and in a maze of controversy. The Delta is a zone where the wants of a modern society come into collision with each other and with the stubborn limitations of a natural system. In 2009, seeking an end to decades of conflict over water, the Legislature established the Delta Stewardship Council with a mandate to resolve long-standing issues. The first step toward that resolution is the document you have before you, the Delta Plan.

Though more than 50 miles inland from the Golden Gate, Delta waters rise and fall with ocean tides. The Delta is in fact the upstream, mostly freshwater portion of the San Francisco Estuary, the largest estuarine system on the West Coast of the Americas, and one of California’s prime natural assets. It is a major stop on the Pacific Flyway and the portal through which important fish species, including anadromous Chinook salmon, pass on their way to and from their spawning grounds in the interior.

The system of waters in which the Delta is so central has changed dramatically since California became a state. Rivers have been dammed and aqueducts built. Natural flows and fluxes have been disrupted to support cities and make the Central Valley the fruit basket and salad bowl of the nation. Approximately half of the water that historically flowed into and through the Delta is now diverted for human use, never reaching the sea. Much of this diversion occurs at points upstream, before the rivers come down to the Delta; but the last and largest draws take place in the Delta itself. On the southeast edge of the region, near Byron, two sets of mighty pumps extract water for shipment as far south as San Diego.

Two-thirds of California’s people and 4.5 million acres of farmland receive some part of their water from the Delta.

The Delta landscape we know is itself the result of a great transformation, from a primeval wetland complex to an archipelago of leveed islands, where soils that once grew vast thickets of tules now yield bountiful corn, alfalfa, tomatoes, and many other crops. The Delta is home to about 12,000 people on farms and in small historic communities, and to about half a million in the larger cities that are



pressing into the region from the fringe. Millions more come to it for boating, fishing, hunting, bird watching, even windsurfing on its 700 miles of channels. Steeped in history, combining notes of the American heartland and of Holland, the Delta looks and feels like no other place in California. This is a land that people love.

It is not doing so well.

The very shape of the modern Delta is in danger. Farming of peat-rich ground like this always leads to oxidation, the literal vanishing of soil, and thus to subsidence. Many Delta islands now lie 15 feet or more below sea level and depend on aging levees to prevent the water in adjacent channels from pouring in. Higher river flows in winter or spring, results of climate change, add to the pressure, and a great earthquake would put further stress on levees. Encroaching urbanization, meanwhile, puts more people and property on dangerous ground.

After years of decline, the condition of the Delta's aquatic ecosystem, as measured especially by the population of wild salmon and other native fishes, has become critical. The list of causes begins, but does not end, with water withdrawals, a kind of tax that leaves the system in a condition of chronic drought. The specific, peculiar manner in which the last large gulps of water are withdrawn adds to the ecological cost. The continual introduction of alien aquatic species from around the world has altered the web of life, often at the expense of native and other valued species. Pollution from the vast and busy watershed does its share of harm.

Today, all those who depend on or value the Delta are, in a word, afraid. Delta residents face the possibility of floods from the east when the rivers flow strongly and of salinity intrusion from the west if they flow too feebly. Fishermen, both commercial and recreational, fret about the future of salmon and other species. Water suppliers that receive water from the Delta find those supplies insecure, subject to

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interruption by weather vagaries, levee failures, or pumping restrictions imposed in the desperate attempt to stem the decline of fish.

The Coequal Goals, the Delta Stewardship Council, and the Delta Plan

Since the middle 1980s, California has been looking for ways to secure the natural and human values of the Delta while maintaining its place in the state's water plumbing. These efforts have generally started in hope and ended in impasse. In recent years environmentalists turned to the courts, using the blunt tool of the federal Endangered Species Act to force curtailment of water exports at certain times. In reaction, water suppliers south of the Delta have complained of "regulatory drought."

In 2009 the Legislature made its latest, most determined bid to find solutions, passing the Delta Reform Act and associated bills. First and foremost, it declared that State policy toward the Delta must henceforth serve two "coequal goals":

- Providing a more reliable water supply for California, and
- Protecting, restoring, and enhancing the Delta ecosystem.

These goals, the Legislature added, must be met in a manner that:

- Protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place.

By affirming the equal status of ecosystem health and water supply reliability, the Legislature changed the terms of the conversation. It changed them further with the following pronouncement: “The policy of the state of California is to reduce reliance on the Delta in meeting California’s future water supply needs.” Here was recognition that, for the sake of the water system and the Delta both, a partial weaning of the one from the other is required.

The Delta Stewardship Council is the body entrusted with giving practical meaning to these directives. Publication of this Delta Plan completes its first assignment. The product of eight drafts, almost 100 public meetings, and nearly 10,000 comments, the Delta Plan pulls together in one place the steps that need to be taken to meet the coequal goals—measures that, in one way or another, could affect almost everyone in California. The Plan is to be revised every 5 years, or sooner as circumstances change.

The Delta Plan contains policies and recommendations, some broad and some narrowly technical, some novel, some commonsensically familiar. What, in essence, does the Plan propose be done differently? At the risk of oversimplification, we can say that it asks California and Californians to do six large things:

- In order to improve and secure our water supply, while taking pressure off the Delta, we must use water more efficiently in cities and on farms, and develop alternative, usually local, sources.
- We must also get much better at capturing and storing water in the wettest years, building reserves that can be drawn on in dry ones.
- To revitalize the Delta ecosystem, we must provide adequate seaward flows in Delta channels, on a schedule more closely mirroring historical rhythms: what the Plan calls natural, functional flows.
- We must also bring back adequate wetlands and riparian zones in the Delta for the benefit of fish, birds, and people.
- To preserve the Delta as a place, we must restrict new urban development to those peripheral areas already earmarked for such growth, while supporting farming and recreation in the Delta’s core.
- And we must reduce flood risk in the Delta, as far as feasible, mainly by improving levees and by providing more overflow zones where swollen rivers can spread without doing harm.

The Delta Plan is *California’s* plan for the Delta, prepared in consultation with, and to be carried out by, all agencies in the field: the State Water Resources Control Board, ultimate arbiter of water rights and water quality; the California Department of Water Resources, the state’s water planner and also operator of the State Water Project; the California Department of Fish and Wildlife, responsible for the welfare of the living system of the Delta; the Delta Protection Commission, which oversees land use and development on low-lying Delta islands; and many more agencies, State and local. The cooperation of federal players like the Bureau of Reclamation, which runs the Central Valley Project; the U.S. Fish and Wildlife Service; the National Marine Fisheries Service; and the U.S. Army Corps of Engineers is also vital.

The working parts of the Plan are a set of *Recommendations* and *Policies*. *Recommendations* call attention to tasks being done or to be done by others. *Policies* are legal requirements that anyone undertaking a significant project in the Delta must meet. See the sidebar, From Plan to Reality, for more on the mechanics of realizing the Plan and pages ES-17 to ES-57 for a survey of all recommendations and policies.

FROM PLAN TO REALITY

The Legislature instructed the Delta Stewardship Council to “direct efforts across state agencies.” This “direction” has three distinct aspects.

First of all, the Council is to **coordinate**. It chairs a high-powered committee dedicated to implementing the Plan. The heads of key State and local agencies are at that table, together with federal representatives. This body meets multiple times each year. Agency staff work with that of the Council daily.

Second, the Council is to **keep track of progress**. Using specific performance metrics contained in the Plan, and guided by the Delta Science Program (see sidebar, Science at the Center), it monitors what is actually being done toward Plan goals, and what changes of course may be indicated. The results are widely publicized.

Third, in certain key areas, the Council can be called upon to **block damaging actions**. The Plan provisions that can trigger this authority are called Policies. To avoid premature encroachment on the work of other agencies, the Legislature devised an indirect path leading to Council intervention.

Actions subject to these Policies are called “covered actions”. The Council generally does not declare an action to be covered. It is the proposing agency that makes this determination. Legal standards apply, however, and if an action is questionably deemed not to be covered, the Council or any other party can take the agency to court.

Once an action is determined to be covered, the proposing agency must make sure it is in line with the Policies of the Delta Plan, filing a Certification of Consistency with contents specified in Delta Plan **Governance Policy 1**. If the agency says the action is consistent but another party or citizen thinks it is not, the opponent can then appeal to the Delta Stewardship Council. A Council member or the Council’s Executive Officer may initiate the appeal.

Where Is the Money?

The Legislature established “adequate and secure funding” as a need “inherent in the coequal goals.” In 2013, the Delta Plan proposed research to identify the amount and types of funding that went into the Delta or benefited aspects of the coequal goals.

SCIENCE AT THE CENTER

The Delta Reform Act mandates that the Delta Plan be based on the best available scientific knowledge of our day. It must, moreover, be open to change as knowledge changes—and as paper proposals meet the test of reality. The results of every action are to be closely tracked, so that corrections can be made in a timely way—a process, much discussed but not sufficiently practiced, known as adaptive management.

To be more than a buzzword, adaptive management must bring two things to bear: new information, and a readiness to let new information disrupt old plans. Both, in the past, have been in scant supply.

Though Delta knowledge has expanded hugely in recent years, it is often a challenge to pull that data together and draw conclusions from it. Studies are done by different agencies for specific purposes and in narrow contexts; findings can be hard to integrate. The Delta Science Program, a part of the Council, seeks to overcome these gaps, linking the whole community of scientists at work. The Delta Science Program leads development of a companion to the Delta Plan called the Delta Science Plan (**Governance Recommendation 1**).

The Delta Science Plan proposes a collaborative structure for doing science in the Delta. It suggests ways of improving communication, resolving conflicting results, and accommodating uncertainty. It offers priorities: how to apportion attention between immediate practical questions, on the one hand, and research aimed at increasing long-term understanding, on the other. It sketches a more integrated approach to monitoring, so that results from different settings can be compared, and considers how computer modeling of the intricate Delta system might be improved.

The first step was an inventory: How much is actually being spent, by all the agencies involved, that can be chalked up to furthering the coequal goals? Second came an assessment of costs: How much would it take to carry out the projects and programs described in the Delta Plan, and what might the sources of support be for each one? Since 2013, this need has informed development of performance measures to inventory and track funding that contributes toward the coequal goals and identify funding gaps. The third step, a comparison of resources and needs, and a reckoning of gaps, remains ongoing: What key elements lack probable funding, and what might be done to fill these holes? (**Funding Principles Recommendations 1 through 3**.) The Delta Plan also tracks funding specific to restoring ecosystem function (**Performance Measure 4.14**). Tracking this funding remains an ongoing activity.

Providing a More Reliable Water Supply for California...

The Delta's contribution to the overall statewide water supply is smaller than many people think. The proportion drawn directly from the Delta, mostly through the pumps near Byron, is only about 8 percent of the total. The bulk of California's water comes from more local sources, and always has.

Nevertheless, the Delta supply is important to many regions. Some 27 million Californians and more than 3.7 million acres of agricultural lands receive water from the Delta and its watersheds. On a more local scale, several water suppliers rely entirely on the Delta, and others have become dependent on this one overtaxed source to a risky degree.

In addition to water pulled directly from the Delta, a great deal is drawn from the Delta's tributary streams before they come down to sea level. San Francisco Bay Area cities reach far inland to tap the Tuolumne and Mokelumne Rivers in the Sierra Nevada, taking 27 percent of their water needs

from these sources. Parts of the Central Valley tributary to the Delta get all of their water from that watershed by

California water planning is full of good intentions. If the laws and policies that are now on the books were consistently carried out, the state's water system—including that part that is tied to the Delta—would work much better.

definition, as do the people and farms of the Delta itself. (See also sidebar, The Problem with Numbers.)

The Delta Plan addresses water supply on three scales: California-wide, on the Delta watershed level, and in the areas that receive water from the Delta pumps. (See Figure ES-1, The Delta Watershed and Areas Receiving Delta Water.)

California water planning is full of good intentions. If the laws and policies that are now on the books were consistently carried out, the state's water system—including that part that is tied to the Delta—would work much better. The Delta Plan calls on *all* water suppliers to obey the many laws and guidelines that exist, and on the State's regulatory agencies to insist on compliance (**Water Resources Recommendation 1**).

THE PROBLEM WITH NUMBERS

In talking of California water, we put trust in numbers: flows, usages, capacities, trends. But some seemingly solid and much-quoted figures are approximations. By and large, we do not accurately know how much water we are using or how much we are saving through conservation efforts. We know less than we should about Delta inflows and outflows or about groundwater. What information is available is often packaged in inscrutable ways. The Delta Plan asks all the agencies and water suppliers involved to provide or demand better information, and to communicate it better (**Water Resources Policy 2, Water Resources Recommendations 16 through 19**).

Whatever the outcome of some current debates, California’s next large increment of water supply will not come from major new engineering but from water conservation, recycling, local stormwater capture, and reasonable use of aquifers (see section, A Better System: Storing Floods to Ride Out Droughts). These measures can yield an amount of water larger than the total that is drawn from the Delta today. State agencies in charge of water matters should systematically promote these practices, and *all* State agencies should model them in their own water usage. **(Water Resources Recommendations 6, 8, and 14.)**

Zooming in a bit from the statewide picture, the Delta Plan calls for all water users linked to the Delta—whether they take water from it directly, or tap the watershed—to reduce their draws. The State Water Resources Control Board should give special scrutiny to water use applications that could boost demand on the watershed. Urban and agricultural water suppliers are already required to write water management plans; these now should include “water supply reliability elements,” discussing, among other things, how to deal with the cascading effects if water exports were interrupted for as long as 3 years. **(Water Resources Recommendations 3, 4, 5, and 7.)**

The Plan speaks most directly to those suppliers that serve water within the Delta or pump water out of the region—including the State Water Project, the Central Valley Project, and by extension the many agricultural and urban water purveyors that are the customers of these giants. Any organization that receives water from the projects must do its share to reduce reliance on the Delta, setting specific reduction targets and putting measures in place. The State

The Delta Watershed and Areas Receiving Delta Water



Figure ES-1

Water Project is called on to write the corresponding provisions into contracts with its clients when these agreements are renewed or revised **(Water Resources Policies 1 and 2, Water Resources Recommendation 2).**

A Better System: Storing Floods to Ride Out Droughts (and Give the Delta a Break)

The measures so far mentioned will take pressure off the Delta while increasing California’s developed water supply. The further key to both goals is to store water that is available from Central Valley rivers in the wettest years, at the

least environmental cost. The need is heightened by the fact of climate change, which is making rainy years all the wetter, and droughts more severe.

There are few opportunities left in California to build large new dams (or to raise the height of old dams), and the options that exist are dauntingly expensive. The California Department of Water Resources and the Bureau of Reclamation have studied several possibilities.

(Water Resources Recommendations 13 and 14).

California began its history with a vast supply of water stored naturally in underground gravel fields and free for the taking via wells. In parts of the state, including most of the southern Central Valley, this endowment has been significantly exploited, and groundwater levels have dropped, sometimes by hundreds of feet. One of the rationales for sending water south from the Delta has been to recharge aquifers, but not enough recharging has occurred.

The Delta Plan calls for a rededication to using aquifers like bank accounts: to be filled up in wet times, in order that they may be drawn from in dry. It promotes projects that improve conjunctive management of surface and groundwater resources and contribute to achieving groundwater sustainability goals established pursuant to the Sustainable Groundwater Management Act, a State law passed in 2014 that established a statewide framework to protect groundwater resources over the long-term (Wat. Code, § 10720-10738). **(Water Resources Recommendations 12f, 12d, 12e, and 12f.)**

The Delta Plan calls for a rededication to using aquifers like bank accounts: to be filled up in wet times, in order that they may be drawn from in dry.

There is another tool for making the supply stretch further: the sale or trade of water between suppliers, especially in times of shortage. Existing rules governing such transfers are found cumbersome by some and insufficiently protective of water rights and the environment by others.

A Better System: Delta Conveyance

As noted, many of the state's water suppliers take their water from rivers at points upstream of the Delta. The two biggest, however—the State Water Project and the Central Valley Project—are different. Though most of the water they transport has its origin to the north, in the Sacramento River, their withdrawal points are deep in the Delta and well to the south, along Old River. Unlike most other water withdrawals, these affect the region not only by removing water but also by distorting flows.

The pumps at Byron have so much power that they essentially give the Delta a second mouth. In many channels, water runs backward at times, toward the pump intakes, not toward the sea. This situation is bad for salmon, Delta smelt, and other sensitive and legally protected species. The water management plans currently under development all try to resolve these issues by different means.

...and Protecting, Restoring, and Enhancing the Delta Ecosystem...

The Delta Plan includes a set of five core strategies that take a balanced approach to ecosystem protection, restoration, and enhancement. These five core strategies are:

1. Create More Natural, Functional Flows
2. Restore Ecosystem Function
3. Protect Land for Restoration and Safeguard Against Land Loss
4. Protect Native Species and Reduce the Impact of Nonnative Invasive Species

5. Improve Institutional Coordination to Support Implementation of Ecosystem Protection, Restoration, and Enhancement.

Create More Natural Functional Flows

Humans have not only reduced the total quantity of runoff through the Delta toward the ocean but also have changed its timing, decreasing the historical torrents of spring and increasing the formerly feeble flows of autumn. The volume, timing, and extent of freshwater flows through the Delta directly affect the health of the Delta ecosystem. More natural functional flows across a restored landscape can support native species recovery, while providing the flexibility needed for water supply reliability. Freshwater flows should be allocated and adaptively managed to more closely resemble the natural volume, timing, frequency, and duration needed to achieve the desired ecosystem functions.

Humans have not only reduced the total quantity of runoff through the Delta toward the ocean but also have changed its timing, decreasing the historical torrents of spring and increasing the formerly feeble flows of autumn.

The minimum seaward flows to be maintained in Delta channels are set by the State Water Resources Control Board, according to season and year type (wet, above normal, below normal, dry, or critical). These required flows help fish; they also prevent saltwater intrusion. As a not-incidental side effect, the rules limit the amount of water that can be exported through the pumps.

The Water Board has been updating the regulations for this flow regime, last comprehensively updated in 2006. The Water Board is also updating comparable flow standards for the major tributary rivers of the Delta. The Delta Plan

recommends that the Water Board maintain a regular schedule of reviews of the Bay-Delta Water Quality Control Plan and its flow objectives to reflect changing conditions due to climate change and other factors. The adopted regulations will become elements of the Plan. The Delta Stewardship Council can be called upon to review any project that could significantly affect Delta flows (**Ecosystem Restoration Policy 1, ER Recommendation 1**).

Restore Ecosystem Function

In its primeval state, the Delta was no uniform sea of reeds but a vast mesh of habitats including tule marsh threaded with rivers and sloughs, perched lakes filled by floods and very high tides, natural levees with big trees on them, and seasonal overflow basins behind the levees. Most of this mosaic has disappeared, converted to fifty large and many small leveed islands. Evidence of what was remains in agricultural soils of uncommon quality (and fragility).

Achieving the Delta Reform Act vision for the Delta ecosystem requires the reestablishment of tens of thousands of acres of functional, diverse, and interconnected habitats. The magnitude of the need dictates a change in existing approaches to restoration in the Delta. State agencies need new funding sources to implement large-scale, multi-benefit restoration projects that focus on ecosystem function and are designed and located to continue functioning under a changing climate. Restoration projects should also be compatible with adjacent land uses and support the cultural, recreational, agricultural, and natural resource values of the Delta as an evolving place. (**Ecosystem Restoration Policy A, ER Recommendations A and B**).

Much of the remaining functional habitat in the Delta is found in select areas along the water side of levees or as managed analogues of past habitats, such as wetlands. The Delta Plan includes policies and recommendations to protect and enhance these areas. When levees are rebuilt or altered, the possibility of setting them back from the water to make more habitat areas should always be explored. The

growth of trees along the waterline should be encouraged. However, authority over many levees lies with the U.S. Army Corps of Engineers, and the Corps requires removal of trees and shrubs, on the theory that root systems have a weakening effect. (The matter is debated.) Given the value of tall vegetation for habitat, the Delta Plan asks the Corps to exempt Delta levees from this rule, where appropriate. **(Ecosystem Restoration Policy 4 and ER Recommendation 4).**

Protect Land for Restoration and Safeguard Against Land Loss

As sea levels rise and subsidence continues, opportunities for intertidal and floodplain restoration are shifting toward the upland edges of the Delta, where the soil surface is still high enough to permit marsh plants and riparian vegetation to take root. Restoration of tidal wetlands should focus on opportunities to create interconnected habitats, where elevations will support intertidal habitats into the future. Lands at elevations suitable for current and future restoration must be protected from development, and restoration projects must be designed and located with rising sea levels in mind.

The Delta Plan outlines six such zones suitable for restoration: the Yolo Bypass, the floodplain west of Sacramento into which the Sacramento River spills in wet years; the Cache Slough Complex, where the Bypass rejoins the body of the Delta; a nexus in the eastern Delta, where the Mokelumne River and the Cosumnes River add their strands to the Delta's web; a zone in the southern Delta along the San Joaquin River; a collection of small tracts at the western apex of the Delta, where it narrows to meet Suisun Bay; and finally the Suisun Marsh, fringing that bay to the north. This fresh-to-brackish water marsh, the largest wetland in California, is mostly managed by hunting clubs for seasonal waterfowl ponds. The existing plan for Suisun Marsh, written by the San Francisco Bay Conservation and Development Commission (BCDC), was adopted in 1976 and does not take into account, for example, probable sea

level rise. The Delta Plan calls for a plan update for Suisun Marsh, which BCDC is currently undertaking. The Delta Stewardship Council can be appealed to, if necessary, to block development or any other intrusion that might interfere with a restoration site.

Consistent with State law, local and regional plans in the Delta must consider sea level rise as well as the loss of land suitable for ecosystem restoration and the need to accommodate these landscape changes. State agencies should take action to reduce, halt, or reverse subsidence; and incentivize agricultural land management practices that support native wildlife and counter subsidence. **(Ecosystem Restoration Policies 2 and 3, ER Recommendations 5, C, D, and E).**

Protect Native Species and Reduce the Impact of Nonnative Invasive Species

One of the less-visible forces to buffet the Delta ecosystem is the proliferation of nonnative aquatic species—fish, crustaceans, plants, and even the microscopic floating animals of zooplankton. Some were introduced deliberately; others arrived by random routes including the discharge of bilgewater from oceangoing ships and the dumping of household fish tanks.

New arrivals keep appearing. Some of these intruders affect the system little, but other species, notably certain aquatic plants and filter-feeding clams, transform the web of life profoundly. While large-scale ecosystem restoration is the priority approach to support native species recovery, some stressors require more focused interventions. In particular, management actions continue to be necessary to avoid introductions of, and reduce the spread of, non-native invasive species. The Delta Plan prohibits actions that could bring in new invasives or improve conditions for invasive species that are already here. In managing native fish populations, the Delta Plan calls for reestablishing riparian habitat and in-stream connectivity along migratory corridors to support the reproductive success and survival of native fish.

The Delta Plan recommends that hatcheries and harvest regulation employ adaptive management strategies to predict and evaluate outcomes and minimize risks. (**Ecosystem Restoration Policy 5; ER Recommendations 7, 8, 9, H, and I**).

Improve Institutional Coordination

A large and diverse group of public agencies and private organizations are engaged in ecosystem protection, enhancement, restoration, and mitigation in the Delta, with roles ranging from regulatory oversight to project implementation and long-term monitoring and management. Improving the efficiency and effectiveness of these efforts requires institutional commitment to a single, consolidated restoration forum with agency support and discretion to guide restoration strategies, plan investments, align individual agency plans and actions, and resolve barriers to implementation. The Delta Plan recommends that local, State and federal agencies coordinate to support implementation of ecosystem restoration, and that the Delta Plan Interagency Implementation Committee (DPIIC) implement a number of actions, such as establishing a DPIIC restoration subcommittee and increasing tribal engagement and input in agency restoration planning. (**ER Recommendations F and G**).

Water Quality

Watershed pollutants, such as salts, excess nutrients, pesticides, and heavy metals, are bad for the Delta ecosystem and for water users. The Delta Plan urges the responsible agencies—the State Water Resources Control Board, the Central Valley Regional Water Quality Control Board, and the San Francisco Bay Regional Water Quality Control Board—to protect “beneficial uses” of water in the Delta and Suisun Bay. All agencies should consider water quality when weighing actions covered under the Delta Plan. Special attention should be paid to pollution that might degrade habitat

restoration sites. (**Water Quality Recommendations 1 through 12**.)

...In a Way that Protects and Enhances the Values of the Delta as an Evolving Place

Because of its role in greater systems—the San Francisco Estuary, the state water plumbing—the Delta is a subject of statewide debate. The conversation can seem to take place over the heads of the people who actually live in the region; and it can seem to overlook the lasting values of the place that is: its thriving agriculture, the beauty of its countryside, its cultural heritage, and its recreational bounty. The Delta Plan strives to redress this balance without promising what is probably impossible: the retention of the landscape exactly as it is today.

Honorific labels do not protect valuable assets, but they can help us recognize them. The Delta Plan asks that the Delta be declared a National Heritage Area by Congress, a recommendation fulfilled when the Delta was designated in 2019 as the first National Heritage Area in California. The Delta Plan also asks that Highway 160, its north-south artery, be designated a National Scenic Byway by the U.S. Department of Transportation (**Delta-as-Place Recommendations 1 and 2**).

Many Delta people fear that their concerns will be brushed aside if new water facilities and habitat restoration are built in the Delta. While deference cannot be guaranteed, the Delta Plan calls on the agencies to respect local plans in siting such projects, to minimize conflict when possible, and to buy land from willing sellers when they can (**Delta-as-Place Policy 2, DP Recommendation 4**).

The distinctive Delta landscape has been much altered by urban encroachment, often entailing higher flood risk. The Delta Protection Commission, created in 1992 and strengthened by the Delta Reform Act of 2009, oversees develop-

ment in the core area called the Primary Zone: Local decisions affecting this zone can be appealed to the Commission and overturned by it. However, this authority does not extend to the peripheral Secondary Zone, where the development pressure is strongest. The Delta Plan tightens control further, restricting new development to areas in the Secondary Zone that were already earmarked for urbanization in local plans when the Delta Plan was adopted. Small housing developments that may occur outside these limits must meet high flood control standards (**Delta-as-Place Policy 1, Risk Reduction Policy 2**). (See Figure ES-2, Delta Communities.)

A little more bustle might actually benefit 11 historic small towns or settlements within the Delta, known as the legacy communities. Most are spaced along the Sacramento River: Freeport, Clarksburg, Hood, Courtland, Locke, Walnut Grove, Ryde, Isleton, and Rio Vista. Knightsen and Bethel Island are near the lower channel of the San Joaquin River. Planners at all levels should respect the character, and promote the vitality, of these places (**Delta-as-Place Recommendation 3**).

The Delta Protection Commission has written an Economic Sustainability Plan containing numerous ideas for the support of the region's farm economy, parks and recreation, and roads and infrastructure. The Delta Plan adapts many of these as **Delta-as-Place Recommendations 5 through 19**.

Flood Risk Reduction

In its primeval state, most of the Delta was wetland and slightly above sea level. Since levees created the modern islands and cultivation began, soils have subsided deeply.

Many Delta tracts are strikingly below the level of the water in adjacent channels; rising sea level will make the differential worse. While the occasional levee break is part of Delta lore, multiple failures could bring disaster to the Delta landscape, economy, and ecosystem.

It is estimated that two-thirds of rural Delta levees have met Bulletin 192-82 or PL 84-99 levee standards, meaning one-third of rural Delta islands and tracts are not adequately protected. There is not enough money for all the desirable improvements, nor is there a mechanism for sharing costs among all who benefit.

The Delta Plan urges all agencies in the Delta to plan for emergencies and to continue to implement the recommendations of the Delta Multi-Hazard Coordination Task Force. Every responsible party, public and private, should allocate money for flood prevention and reaction. Utilities should plan to minimize interruptions of service. The Department of Water Resources should expand its stockpiles of stone and earth for the use of all when breaches require rapid plugging. Higher levels of private flood insurance should be required, and the State should gain immunity from lawsuits related to flooding beyond its power to prevent. (**Risk Reduction Recommendations 1, 7, 13, and 15**.)

Delta Communities

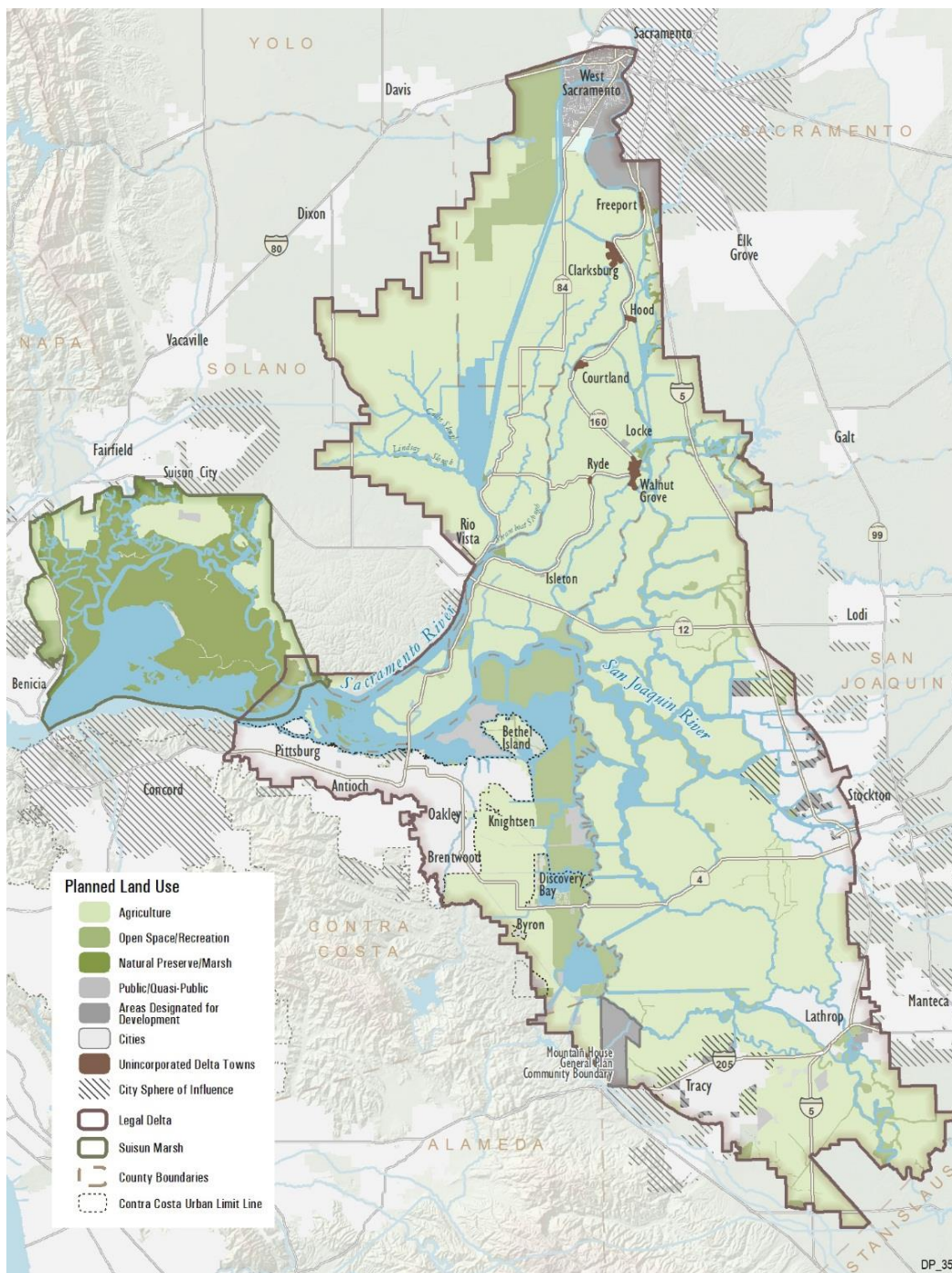


Figure ES-2 Sources: City of Benicia 2003, Contra Costa County 2008, Contra Costa County 2010, City of Fairfield 2008, City of Lathrop 2012, City of Manteca 2012, Mountain House Community Services District 2008, City of Rio Vista 2001, SACOG 2009, City of Sacramento 2008, Sacramento County 2011, Sacramento County 2012, Sacramento County 2013, San Joaquin County 2008a, San Joaquin County 2008b, Solano County 2008a, Solano County 2008b, City of Stockton 2011a, City of Stockton 2011b, City of Suisun City 2011, City of Tracy 2011a, City of Tracy 2011b, City of West Sacramento 2010, Yolo County 2010a, Yolo County 2010b.

There are more than 1,000 miles of Delta levees. The State is directly responsible for about one-third of the system; nearly 70 local Reclamation Districts are in charge of the rest. It is estimated that two-thirds of rural Delta levees have met Bulletin 192-82 or PL 84-99 levee standards, meaning one-third of rural Delta islands and tracts are not adequately protected. There is not enough money for all the desirable improvements, nor is there a mechanism for sharing costs among all who benefit. Adequate State funds to support levee maintenance and improvement should be provided through the Delta Levees Maintenance Subventions Program, the Delta Levee Special Projects Program, and through programs that implement the Central Valley Flood Protection Plan. The Delta Plan calls on the Council, DWR, CVFPB, and the DPC, in consultation with the Corps of Engineers and the Department of Finance, to cooperate in the development of levee finance mechanisms, including those studied by the DPC, that create opportunities for “beneficiary pays”-based funding approaches that supplement State funding for levee maintenance and improvements. The Delta Plan calls for a hazard mitigation program, funded by the State, to be established to make grants to local governments and flood management agencies to support emergency preparedness actions, such as evacuation planning or prepositioning of flood fight materials, and non-structural flood hazard mitigation actions, such as flood-proofing of public or private buildings or the purchase and removal of flood-prone structures. Public and private utilities, too, should invest in defense of their facilities and lines. The Delta Plan also calls for reforms of the Federal Emergency Management Agency’s rehabilitation assistance program, including a renewed hazard mitigation program for Delta levees, and the Army Corps of Engineers’ Rehabilitation and Inspection Program (PL 84-99) to account for the economic value of the Delta’s water supplies and transportation services and for the State’s commitments to reducing Delta flood risk and improving Delta levees. **(Risk Reduction Recommendations 3, 5, 6, 7, and 12).**

The State contributes massively to levee costs throughout the Delta, but on a not very systematic basis. The Legislature directed the Delta Stewardship Council to set priorities for these investments. **Risk Reduction Policy 1** offers broad principles. Urban areas come first; special attention must be paid to levees guarding roads and energy facilities. The channels through which water flows toward export pumps require protection, as does the pipeline that brings Sierra water across the Delta for the East Bay Municipal Utility District. Levees on the western islands, whose failure could bring salinity deep into the Delta, are also of high concern.

Building on work completed by the Department of Water Resources, the Council has assessed, island by island, the state of levees, the degree of subsidence, the extent and value of assets to be protected, and the cost of long-term defense. The result is a tiered priority list for the expenditure of State levee funds **(Risk Reduction Policy 1 and Risk Reduction Recommendation 4).**

To take pressure off the levee system, floodwaters need room to move and to spread without causing harm (and often to the benefit of plants, birds, and fish). Two such safety valves already exist at the Yolo Bypass and the Cosumnes-Mokelumne floodplain; a third such zone is proposed for the lower San Joaquin River at Paradise Cut. The Delta Plan urges expansion of the flood relief system, and requires that present or potential overflow areas be kept free of encroachments. Levee setbacks are also encouraged. **(Risk Reduction Policies 3 and 4, Risk Reduction Recommendations 8 through 11.)**

Given time, land subsidence can actually be reversed. Experimental plots show that soils can be deepened by growing tules in shallowly flooded fields, at a rate of a little over an inch a year. The tule plots also fix a lot of atmospheric carbon and thus do their bit toward slowing climate change. The Delta Plan encourages expansion of this work **(Delta-as-Place Recommendation 7).**

Finding the Way Through

First adopted in May 2013, the [Delta Plan](#) anticipated the need for periodic reviews and updates in response to changing circumstances and conditions in the Delta. Seven amendments have been made to the Delta Plan to date:

- **Performance Measures:** When first adopted, the Delta Plan contained preliminary performance measures developed to monitor implementation of its policies and recommendations. The Delta Plan identified the need for the Council to continue to work with scientific, agency, and stakeholder experts to further refine its performance measures. The Council subsequently conducted a rigorous public process and adopted new and refined performance measures in February 2016. Based on recommendations from the Delta Independent Science Board, in 2018, the Council adopted a further refined set of performance measures to better track Delta Plan outputs and outcomes.
- **Single-Year Water Transfers:** Water transfers across the Delta can be an important tool for improving water supply reliability, especially in drought years when some water rights holders may choose to sell a portion of their water supply to areas of the state that are harder hit or are willing to place a greater value on that water. The Council conducted an environmental review and adopted a regulatory amendment in September 2016 that exempts single-year water transfers from regulation under the Delta Plan and simplifies the implementation of these short-term transfers.
- **Conveyance, Storage, and Operations:** This amendment included a series of recommendations that fulfill the Council's statutory requirement to promote options for water conveyance, storage, and operations of both. Adopted in April 2018, it includes recommendations that the design and implementation of new or improved conveyance infrastructure in the Delta minimize disruptions to transportation and business activities in the Delta, complement the Delta landscape, and are implemented in cooperation with affected communities, local

governments, the Delta Protection Commission, and Delta stakeholders.

- **Ecosystem:** The Delta Reform Act called for the Delta Plan to provide a long-term approach to restoring habitat within the Delta and its watershed by the end of this century. When first adopted, the Delta Plan relied on the emerging Bay-Delta Conservation Plan (BDCP) to provide a framework for ecosystem restoration in the Delta. When the State pivoted away from the BDCP in 2015 and split it into the California EcoRestore and WaterFix projects, significantly reducing the scale of restoration targets, it became critical that the Council fill the resulting gap and amend the Delta Plan to provide a framework to guide regional restoration efforts, considering changes in land use, climate, and regulations, and incorporating the latest restoration science and practices. In June 2022, the Council amended the Delta Plan to provide a comprehensive approach to ecosystem protection, restoration, and enhancement in the Delta.
- **Delta Levees Investment Strategy:** The Delta Levees Investment Strategy (DLIS) amendment, adopted in 2023, guides the prioritization of state investments in the Delta (more than \$700 million since the 1970s) that reduce flood risk and better integrate Delta levees with other Delta actions and statewide flood control.

We will be doing well if, in a few years' time:

- Many urban and rural water suppliers that draw on the Delta have taken real steps to reduce that reliance, with measured, reported results. Since 2013, many urban and agricultural water management plans have been updated to report reliance on the Delta, and many plan for significant declines in such reliance.
- Flows in Delta channels, controlled under new State Water Resources Control Board rules, are looking a good deal more like the historical ones. The Water Board has been reviewing flow objectives for the Bay-Delta Water Quality Control Plan for several years, negotiating potential voluntary agreements, and other actions, which

could contribute to flows that more closely resemble historical functions.

- Several new habitat restoration projects in the Delta have moved from the planning to the construction stage. Several thousand acres of restoration have been constructed, are in progress, or are now planned in the Delta.
- Subsidence reversal planting has expanded from the small pilot projects seen today.
- Measurably less acreage of Delta waters is dominated by nonnative water plants.
- Stocks of endangered fish are showing a rebound.
- Key levees have been strengthened, especially in the environs of Stockton and Sacramento.
- No further rural farmland has been lost to urbanization.

We envision a Delta landscape that remains essentially itself while adapting gradually and gracefully to a future marked by climate change and sea level rise. We want a Delta ecosystem that works markedly better than today's, reflected partly in a resurgence of native fish. And we want an end to the endless wrangling about Delta flows and plumbing—a truce that can only be achieved if the entire California water system undergoes a measure of reform.

Photo Credits

Chapter divider (*clockwise from top left*): California Department of Water Resources, Chris Austin, L.A. Yarbrough, California Department of Water Resources

Page ES-1: The Delta Conservancy

In solving the “Delta problem,” we will not only be doing right by a treasured land- and waterscape. We will be putting the entire state of California on a sounder development path.

Driven by cost, environmental concern, and sheer practicality, the water world is already shifting away from reliance on distant dams and aqueducts and toward trust in conservation, local sources, and better use of groundwater storage. This change is reflected in the fact, startling to many, that California's total water consumption has not climbed in recent years; in fact, despite our increasing population, use has slightly dropped. The Delta Plan gives a push to trends already under way.

In solving the “Delta problem,” we will not only be doing right by a treasured land- and waterscape. We will be putting the entire state of California on a sounder development path.

Delta Plan Policies and Recommendations

The Delta Plan contains a set of regulatory policies that are enforced by the Delta Stewardship Council’s appellate authority and oversight. The Delta Plan also contains priority recommendations, which are nonregulatory but call out actions essential to achieving the coequal goals.

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
Chapter 2		
G P1 (23 CCR section 5002)	Detailed Findings to Establish Consistency with the Delta Plan	<p>(a) <i>This policy specifies what must be addressed in a certification of consistency filed by a State or local public agency with regard to a covered action. This policy only applies after a “proposed action” has been determined by a State or local public agency to be a covered action because it is covered by one or more of the regulatory policies contained in Article 3. Inconsistency with this policy may be the basis for an appeal.</i></p> <p>(b) <i>Certifications of consistency must include detailed findings that address each of the following requirements:</i></p> <ol style="list-style-type: none"> (1) <i>Covered actions, in order to be consistent with the Delta Plan, must be consistent with this regulatory policy and with each of the regulatory policies contained in Article 3 implicated by the covered action. The Delta Stewardship Council acknowledges that in some cases, based upon the nature of the covered action, full consistency with all relevant regulatory policies may not be feasible. In those cases, the agency that files the certification of consistency may nevertheless determine that the covered action is consistent with the Delta Plan because, on whole, that action is consistent with the coequal goals. That determination must include a clear identification of areas where consistency with relevant regulatory policies is not feasible, an explanation of the reasons why it is not feasible, and an explanation of how the covered action nevertheless, on whole, is consistent with the coequal goals. That determination is subject to review by the Delta Stewardship Council on appeal;</i> (2) <i>Covered actions not exempt from CEQA must include all applicable feasible mitigation measures adopted and incorporated into the Delta Plan as amended April 26, 2018 (unless the measure(s) are within the exclusive jurisdiction of an agency other than the agency that files the certification of consistency), or substitute mitigation measures that the agency that files the certification of consistency finds are equally or more effective;</i> (3) <i>As relevant to the purpose and nature of the project, all covered actions must document use of best available science;</i> (4) <i>Ecosystem restoration and water management covered actions must include adequate provisions, appropriate to the scope of the covered action, to assure continued implementation of adaptive management. This requirement shall be satisfied through both of the following:</i>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
		<p>(A) <i>An adaptive management plan that describes the approach to be taken consistent with the adaptive management framework in Appendix 1B, and</i></p> <p>(B) <i>Documentation of access to adequate resources and delineated authority by the entity responsible for the implementation of the proposed adaptive management process.</i></p> <p>(c) <i>A conservation measure proposed to be implemented pursuant to a natural community conservation plan or a habitat conservation plan that was:</i></p> <p>(1) <i>Developed by a local government in the Delta; and</i></p> <p>(2) <i>Approved and permitted by the California Department of Fish and Wildlife prior to May 16, 2013 is deemed to be consistent with sections 5005 through 5009 of this Chapter if the certification of consistency filed with regard to the conservation measure includes a statement confirming the nature of the conservation measure from the California Department of Fish and Wildlife.</i></p>
G R1	Development of a Delta Science Plan	<p><i>The Delta Stewardship Council’s Delta Science Program should develop a Delta Science Plan by December 31, 2013. The Delta Science Program should work with the Interagency Ecological Program, Bay Delta Conservation Plan, California Department of Fish and Wildlife, and other agencies to develop the Delta Science Plan. To ensure that best science is used to develop the Delta Science Plan, the Delta Independent Science Board should review the draft Delta Science Plan.</i></p> <p><i>The Delta Science Plan should address the following:</i></p> <ul style="list-style-type: none"> ▪ <i>A collaborative institutional and organizational structure for conducting science in the Delta</i> ▪ <i>Data management, synthesis, scientific exchange, and communication strategies to support adaptive management and improve the accessibility of information</i> ▪ <i>Strategies for addressing uncertainty and conflicting scientific information</i> ▪ <i>The prioritization of research and balancing of the short-term immediate science needs with science that enhances comprehensive understanding of the Delta system over the long term</i> ▪ <i>Identification of existing and future needs for refining and developing numerical and simulation models along with enhancing existing Delta conceptual models (e.g., the Interagency Ecological Program (IEP) Pelagic Organism Decline (POD) and the Delta Regional Ecosystem Restoration Implementation Plan (DRERIP) models)</i> ▪ <i>An integrated approach for monitoring that incorporates existing and future monitoring efforts</i> ▪ <i>An assessment of financial needs and funding sources to support science</i>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
Chapter 3		
WR P1 (23 CCR section 5003)	Reduce Reliance on the Delta through Improved Regional Water Self-Reliance	<p>(a) <i>Water shall not be exported from, transferred through, or used in the Delta if all of the following apply:</i></p> <p>(1) <i>One or more water suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph (1) of subsection (c);</i></p> <p>(2) <i>That failure has significantly caused the need for the export, transfer, or use; and</i></p> <p>(3) <i>The export, transfer, or use would have a significant adverse environmental impact in the Delta.</i></p> <p>(b) <i>For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action to export water from, transfer water through, or use water in the Delta, but does not cover any such action unless one or more water suppliers would receive water as a result of the proposed action.</i></p> <p>(c) (1) <i>Water suppliers that have done all of the following are contributing to reduced reliance on the Delta and improved regional self-reliance and are therefore consistent with this policy:</i></p> <p>(A) <i>Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;</i></p> <p>(B) <i>Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and</i></p> <p>(C) <i>Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance shall be reported in the Plan as the reduction in the amount of water used, or in the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).</i></p> <p>(2) <i>Programs and projects that reduce reliance could include, but are not limited to, improvements in water use efficiency, water recycling, stormwater capture and use, advanced water technologies, conjunctive use projects, local and regional water supply and storage projects, and improved regional coordination of local and regional water supply efforts.</i></p>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
WR R1	Implement Water Efficiency and Water Management Planning Laws	<i>All water suppliers should fully implement applicable water efficiency and water management laws, including urban water management plans (Water Code section 10610 et seq.); the 20 percent reduction in statewide urban per capita water usage by 2020 (Water Code section 10608 et seq.); agricultural water management plans (Water Code section 10608 et seq. and 10800 et seq.); and other applicable water laws, regulations, or rules.</i>
WR R2	Require SWP Contractors to Implement Water Efficiency and Water Management Laws	<i>The California Department of Water Resources should include a provision in all State Water Project contracts, contract amendments, contract renewals, and water transfer agreements that requires the implementation of all State water efficiency and water management laws, goals, and regulations, including compliance with Water Code section 85021.</i>
WR R3	Compliance with Reasonable and Beneficial Use	<i>The State Water Resources Control Board should evaluate all applications and petitions for a new water right or a new or changed point of diversion, place of use, or purpose of use that would result in new or increased long-term average use of water from the Delta watershed for consistency with the constitutional principle of reasonable and beneficial use. The State Water Resources Control Board should conduct its evaluation consistent with Water Code sections 85021, 85023, 85031, and other provisions of California law. An applicant or petitioner should submit to the State Water Resources Control Board sufficient information to support findings of consistency, including, as applicable, its urban water management plan, agricultural water management plan, and environmental documents prepared pursuant to the California Environmental Quality Act.</i>
WR R4	Expanded Water Supply Reliability Element	<i>Water suppliers that receive water from the Delta watershed should include an expanded water supply reliability element, starting in 2015, as part of the update of an urban water management plan, agricultural water management plan, integrated water management plan, or other plan that provides equivalent information about the supplier's planned investments in water conservation and water supply development. The expanded water supply reliability element should detail how water suppliers are reducing reliance on the Delta and improving regional self-reliance consistent with Water Code section 85201 through investments in local and regional programs and projects, and should document the expected outcome for a measurable reduction in reliance on the Delta and improvement in regional self-reliance. At a minimum, these plans should include a plan for possible interruption of water supplies for up to 36 months due to catastrophic events impacting the Delta, evaluation of the regional water balance, a climate change vulnerability assessment, and an evaluation of the extent to which the supplier's rate structure promotes and sustains efficient water use.</i>
WR R5	Develop Water Supply Reliability Element Guidelines	<i>The California Department of Water Resources, in consultation with the Delta Stewardship Council, the State Water Resources Control Board, and others, should develop and approve, by December 31, 2014, guidelines for the preparation of a water supply reliability element so that water suppliers can begin implementation of WR R4 by 2015.</i>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
WR R6	Update Water Efficiency Goals	<i>The California Department of Water Resources and the State Water Resources Control Board should establish an advisory group with other State agencies and stakeholders to identify and implement measures to reduce impediments to achievement of statewide water conservation, recycled water, and stormwater goals by 2014. This group should evaluate and recommend updated goals for additional water efficiency and water resource development by 2018. Issues such as water distribution system leakage should be addressed. Evaluation should include an assessment of how regions are achieving their proportional share of these goals.</i>
WR R7	Revise State Grant and Loan Priorities	<i>The California Department of Water Resources, the State Water Resources Control Board, the California Department of Public Health, and other agencies, in consultation with the Delta Stewardship Council, should revise State grant and loan ranking criteria by December 31, 2013, to be consistent with Water Code section 85021 and to provide a priority for water suppliers that includes an expanded water supply reliability element in their adopted urban water management plans, agricultural water management plans, and/or integrated regional water management plans.</i>
WR R8	Demonstrate State Leadership	<i>All State agencies should take a leadership role in designing new and retrofitted State-owned and -leased facilities, including buildings and California Department of Transportation facilities, to increase water efficiency, use recycled water, and incorporate stormwater runoff capture and low-impact development strategies.</i>
WR R9	Update Bulletin 118, California's Groundwater Plan	<i>The California Department of Water Resources, in consultation with the Bureau of Reclamation, U.S. Geological Survey, the State Water Resources Control Board, and other agencies and stakeholders should update Bulletin 118 information using field data, California Statewide Groundwater Elevation Monitoring (CASGEM), groundwater agency reports, satellite imagery, and other best available science by December 31, 2014, so that this information can be included in the next California Water Plan Update and be available for inclusion in 2015 urban water management plans and agricultural water management plans. The Bulletin 118 update should include a systematic evaluation of major groundwater basins to determine sustainable yield and overdraft status; a projection of California's groundwater resources in 20 years if current groundwater management trends remain unchanged; anticipated impacts of climate change on surface water and groundwater resources; and recommendations for State, federal, and local actions to improve groundwater management. In addition, the Bulletin 118 update should identify groundwater basins that are in a critical condition of overdraft.</i>
WR R10	Implement Groundwater Management Plans in Areas that Receive Water from the Delta Watershed	<i>Water suppliers that receive water from the Delta watershed and that obtain a significant percentage of their long-term average water supplies from groundwater sources should develop and implement sustainable groundwater management plans that are consistent with both the required and recommended components of local groundwater management plans identified by the California Department of Water Resources Bulletin 118 (Update 2003) by December 31, 2014.</i>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
WR R11	Recover and Manage Critically Overdrafted Groundwater Basins	<p><i>Local and regional agencies in groundwater basins that have been identified by the California Department of Water Resources as being in a critical condition of overdraft should develop and implement a sustainable groundwater management plan, consistent with both the required and recommended components of local groundwater management plans identified by the California Department of Water Resources Bulletin 118 (Update 2003), by December 31, 2014. If local or regional agencies fail to develop and implement these plans, the State Water Resources Control Board should take action to determine if the continued overuse of a groundwater basin constitutes a violation of the State’s Constitution Article X, Section 2, prohibition on unreasonable use of water and whether a groundwater adjudication is necessary to prevent the destruction of or irreparable injury to the quality of the groundwater, consistent with Water Code sections 2100 and 2101.</i></p>
WR R12a	Promote Options for New and Improved Infrastructure Related to Water Conveyance	<p><i>Subject to completion of environmental review and approval by the lead agency, and applicable regulatory approvals from other public agencies, the following infrastructure options are hereby promoted:</i></p> <p><i>(1) The California Department of Water Resources (DWR) the U.S. Department of the Interior, Bureau of Reclamation (Reclamation), and local beneficiary agencies should pursue a dual-conveyance option for the Delta. Dual conveyance is a combination of through-Delta conveyance and isolated conveyance to allow operational flexibility. Dual conveyance alternatives should be evaluated, and a selected plan designed and implemented, consistent with WR R12b, below. Dual conveyance should incorporate existing and new intakes and facility improvements for both isolated, below-ground conveyance and through-Delta conveyance of State Water Project (SWP) and Central Valley Project (CVP) water supplies from the Sacramento River to the south Delta, as follows:</i></p> <p><i>(a) The isolated conveyance should incorporate one or more new screened intakes that protect native fish and that are operated to minimize harmful reverse flow conditions in Old and Middle rivers while maintaining water quality for in-Delta uses. Isolated conveyance should complement existing and improved through-Delta conveyance to promote operational flexibility, protect water quality, and support ecosystem restoration.</i></p> <p><i>(b) To protect the Delta ecosystem, the State Water Resources Control Board should ensure that operational criteria for new and improved conveyance facilities comply with applicable State Water Resources Control Board requirements, including any flow criteria adopted pursuant to Water Code 85086(c)(2).</i></p> <p><i>(c) Dual conveyance requires continued maintenance and further improvement of through-Delta conveyance. Through-Delta conveyance improvements may include channel improvements consistent with the Delta Plan and additional facilities that could provide for improved operations for native fish protection.</i></p>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
		<p>(2) <i>DWR in collaboration with local beneficiary agencies should pursue new intake and conveyance facilities for conveying SWP supplies from the Sacramento River to SWP contractors in Solano and Napa Counties. This is both to protect native fish and improve the quality and reliability of water supplies delivered via the North Bay Aqueduct.</i></p> <p>(3) <i>Local agencies, in coordination with DWR and Reclamation, should pursue new conveyance facilities or conveyance facility improvements that allow use of multiple Delta intakes associated with the Los Vaqueros Project. This would increase operational flexibility for local, SWP, and CVP municipal and environmental water supplies conveyed from the south Delta.</i></p> <p>(4) <i>DWR, Reclamation, and local beneficiary agencies, in coordination with the California Department of Fish and Wildlife, National Marine Fisheries Service and U.S. Fish and Wildlife Service, should evaluate and identify for near-term implementation feasible actions to contribute to reducing fish losses associated with existing pumping operations at the Banks Pumping Plant and Jones Pumping Plant, consistent with the 2009 Biological Opinion and Conference Opinion on the Long-Term Central Valley Project and State Water Project Operations Criteria and Plan; the 2009 Biological Opinion on the Coordinated Operations of the Central Valley Project and State Water Project in California; and the 2014 Recovery Plan for Evolutionarily Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of California Central Valley Steelhead. These actions may include, but are not limited to:</i></p> <p>(a) <i>Implementing changes to the operations and physical infrastructure of the facilities where such changes can improve fish screening and salvage operations and reduce mortality from entrainment and salvage.</i></p> <p>(b) <i>Evaluating and implementing effective predator control actions, such as fishery management or directed removal programs, for minimizing predation on juvenile salmon and steelhead in Clifton Court Forebay and in the primary channel at the Tracy Fish Collection Facility.</i></p> <p>(c) <i>Evaluating and implementing effective predation reduction actions associated with salvage operations, such as transporting and releasing fish in multiple locations in the Delta.</i></p> <p>(d) <i>Installing equipment to monitor for the presence of predators and to monitor flows at the fish collection facilities.</i></p> <p>(e) <i>Modifying Delta Cross Channel gate operations and evaluating methods to control access to Georgiana Slough and other migration routes into the interior Delta to reduce diversion of listed juvenile fish from the Sacramento River and the San Joaquin River into the southern or central Delta..</i></p>
WR R12b	Evaluate, Design, and Implement	(1) <i>In selecting new and improved Delta infrastructure for conveying SWP, CVP, and market transfer water supplies from the Sacramento River to</i>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
	New or Improved Conveyance or Diversion Facilities in the Delta	<p><i>the south Delta, project proponents should analyze and evaluate a range of alternatives including, but not limited to the following:</i></p> <ul style="list-style-type: none"> <i>(a) A reasonable range of flow criteria, rates of diversion, and other operational criteria required to satisfy applicable requirements of State and federal fish and wildlife agencies and the State Water Resources Control Board, and other operational requirements and flows necessary for protecting, restoring, and enhancing the Delta ecosystem under a reasonable range of hydrologic conditions (as described under WR R12h, below). This includes identifying water available for export and other beneficial uses, consistent with water quality requirements of the State Water Resources Control Board.</i> <i>(b) A reasonable range of dual-conveyance alternatives, including options for the number and location of new intakes, a range of isolated conveyance capacities, through-Delta conveyance improvements, and other facilities that could improve operations for native fish and in-Delta water quality, as applicable.</i> <i>(c) The potential effects of climate change on the conveyance alternatives under consideration, including possible precipitation and runoff pattern changes, temperature, and sea level rise estimates consistent with guidance provided by the California Natural Resources Agency, National Research.</i> <i>(d) Council, or other appropriate projections. The potential effects on migratory fish and aquatic resources and habitats.</i> <i>(e) The potential effects on Sacramento River and San Joaquin River flood management.</i> <i>(f) The resilience and recovery of Delta conveyance alternatives to catastrophic failure caused by earthquake, flood or other natural disaster.</i> <i>(g) The potential effects of each Delta conveyance alternative on Delta water quality, flows, and water levels, including the effects of these changes on in-Delta water users.</i> <i>(h) The operational benefits and/or detriments of providing multiple intake locations.</i> <i>(i) The potential short-term and long-term effects of each Delta conveyance alternative on terrestrial species.</i> <i>(j) The potential effects of each Delta conveyance alternative on the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place.</i> <i>(k) The cost-effectiveness of the alternatives in furthering the coequal goals. Cost-effectiveness means the degree to which a project or action is effective in achieving desired outcomes in relation to its cost.</i>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
		<p>(2) <i>Project proponents should design and implement new or improved conveyance infrastructure in the Delta consistent with the following parameters:</i></p> <ul style="list-style-type: none"> (a) <i>Located in areas with seasonally favorable freshwater conditions, and areas that are less vulnerable to degradation during sustained droughts and under anticipated future climate change and sea level rise conditions.</i> (b) <i>Located to avoid impacts to and, where possible, improve conditions for habitat restoration opportunities in priority restoration areas identified in the Delta Plan, and other important restoration opportunity areas identified by the California Department of Fish and Wildlife.</i> (c) <i>Located, designed, and operated to minimize adverse conditions for native aquatic and terrestrial species, including but not limited to those conditions related to flow direction and water quality.</i> (d) <i>Designed to avoid or minimize native fish entrainment and impingement.</i> (e) <i>Designed to balance adverse project impacts against the project's long- and short-term benefits.</i> (f) <i>Designed to minimize disruptions to transportation and business activities during routine maintenance activities, with consideration given to scheduling planned maintenance activities in consultation with local governments to minimize impacts to residents and businesses, and establishing communication protocols to notify residents of planned and unplanned maintenance activities.</i> (g) <i>Designed to complement the Delta landscape and minimize aesthetic impacts, including visual impacts of spoils material stockpiles.</i> (h) <i>Designed to maximize beneficial reuse of spoils materials to the extent practicable and feasible.</i> (i) <i>Implemented in accordance with detailed project implementation plans developed in cooperation with affected communities, local governments, the Delta Protection Commission, and stakeholders to minimize and/or mitigate adverse environmental effects consistent with Delta Plan Policy GP 1, and avoid or reduce conflicts with existing or planned land uses consistent with Delta Plan Policy DP P2, and in consideration of Delta Plan recommendations DP R14, DP R16 and DP R17. Project implementation plans should consider and protect the unique character and historical importance of legacy communities, be consistent with the State's policy regarding the human right to water, and incorporate good neighbor policies to avoid negative impacts on agricultural lands, residents, and business. Items that should be addressed in the plans include, but are not limited to, the following:</i> <ul style="list-style-type: none"> i. <i>Construction sequencing or phasing;</i> ii. <i>Temporary and long-term spoils placement;</i>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
		<ul style="list-style-type: none"> iii. <i>Plans for temporary traffic routing that are consistent with local transportation plans, including consideration of permanent improvements to transportation and alternative transportation routes to avoid the most severe impacts to levels of service during construction;</i> iv. <i>Effects of construction activities on recreation and other visitor-related activities and businesses, including disruptions to transportation, temporary waterway closures, aesthetic and noise effects, and access to marinas, parks, and other recreation facilities;</i> v. <i>Effects on local surface water and groundwater supplies during construction;</i> vi. <i>Mechanisms for communicating with landowners, communities, and local governments before and during construction;</i> vii. <i>Mechanisms by which community members and stakeholders can raise concerns during construction and in association with ongoing facility operations and maintenance; and</i> viii. <i>Legally-permissible project delivery methods which are cost effective and provide for an expedited design and construction timeline that minimizes disruption to affected communities.</i>
WR R12c	Improve or Modify Through-Delta Conveyance	<p>(1) <i>Project proponents should design, implement, and adaptively manage improved or modified through-Delta conveyance and appurtenant facilities (such as gates, permanent barriers, or fish handling facilities) to:</i></p> <ul style="list-style-type: none"> (a) <i>Substantially lessen or avoid impacts and provide net improvements to riparian habitat and channel margin habitat along anadromous fish migratory corridors and, where feasible, enhance conditions for native fish.</i> (b) <i>Substantially lessen or avoid impediments and provide net improvements to anadromous fish migration.</i> (c) <i>Substantially lessen or avoid impacts to public safety and include or contribute to levee improvements along Old and Middle Rivers consistent with Chapter 7 of the Delta Plan.</i> (d) <i>Modify the conveyance capacity or hydraulic characteristics of existing Delta waterways (e.g., improving levees and/or dredging) in a manner that provides multiple benefits, including: taking advantage of periods when water flow and quality conditions are favorable for improving water supply delivery reliability, quality, and flexibility and for protecting, restoring, and enhancing the Delta ecosystem; improving floodplain values and functions; improving habitat conditions during fish migration; and reducing flood risks.</i>
WR R12d	Promote Options for New or Expanded Water Storage	<p><i>Subject to completion of environmental review and approval by the lead agency, and applicable regulatory approvals from other public agencies, options for new or expanded water storage are hereby promoted as follows:</i></p>

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		<p>(1) <i>Within the Delta watershed, project proponents should design and operate new or expanded offstream or onstream surface water storage projects consistent with the criteria in WR R12h to:</i></p> <p>(a) <i>Provide water supply reliability, water quality, operational flexibility to adapt to changing conditions, and ecosystem benefits under variable hydrologic conditions, and, where possible, flood risk management benefits.</i></p> <p>(b) <i>Improve resilience to the effects of climate change, sea level rise, higher stream temperatures, long-term drought conditions, and emergency supply disruptions.</i></p> <p>(c) <i>Allow greater flexibility in storing water supplies during periods when more water is available for carryover into periods when less water is available and/or Delta exports are reduced.</i></p> <p>(d) <i>Take advantage of periods when the water flow, quality, and environmental requirements of State and federal agencies are being met, for improving water supply delivery reliability and flexibility and protecting, restoring, and enhancing the Delta ecosystem.</i></p> <p>(e) <i>Contribute to improved conjunctive management of both surface and groundwater resources to maximize efficient water use and contribute to sustainable management of groundwater basins, consistent with the Sustainable Groundwater Management Act.</i></p> <p>(2) <i>Within the Delta water export area, project proponents should implement new or expanded surface water storage projects that improve resilience to the effects of climate change and drought and are operated to allow storage of exported and local surface water supplied during wetter periods for use during dryer periods when exports from the Delta are reduced. Opportunities to store stormwater and recycled water supplies of suitable quality should also be promoted as a strategy for improved regional water management and reduced reliance on the Delta. This includes projects in the San Francisco Bay Area, San Joaquin Valley, Central Coast region, and Southern California.</i></p> <p>(3) <i>Within the Delta watershed and Delta water export area, project proponents should implement groundwater storage and extraction projects, including facilities for groundwater withdrawal, recharge, injection, and monitoring that are consistent with the criteria in WR R12f below.</i></p> <p>(4) <i>The State Water Resources Control Board should review and consider revisions to existing regulations to facilitate the safe use of recycled water, stormwater, and other local water supplies for groundwater replenishment.</i></p>
WR R12e	Design, Construct and Implement New or Expanded Surface Water Storage	<p>(1) <i>Project proponents should design, implement, and adaptively manage new or expanded surface storage projects in the Delta, its watershed, and Delta water export areas to:</i></p> <p>(a) <i>Improve resilience of the State’s water supply system through demonstration of benefits under current and anticipated future</i></p>

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		<p><i>conditions, including climate change, changing water demands, and regulatory conditions.</i></p> <p><i>(b) Contribute to regional self-reliance and reduced reliance on the Delta.</i></p> <p><i>(c) Demonstrate contributions to the goals of the Sustainable Groundwater Management Act by promoting conjunctive use to achieve long-term groundwater basin sustainability.</i></p> <p><i>(d) Enable participation in water exchanges and transfers that benefit the Delta ecosystem and improve regional water supply reliability.</i></p> <p><i>(e) Demonstrate cost-effectiveness, where cost-effectiveness means the degree to which a project or action is effective in achieving desired outcomes in relation to its cost.</i></p> <p><i>(f) Minimize and mitigate the impacts of storage on stream flows and water quality, including impacts during construction.</i></p> <p><i>(2) Project proponents should design and implement new or expanded surface water storage projects in the Delta and Delta watershed, where feasible, to further achievement of the coequal goals by:</i></p> <p><i>(a) Providing for the dedicated storage of water during wet periods for carry over and later use during dry periods, while balancing the benefits of providing more natural, functional flows to the Delta and its tributaries, meeting other ecosystem needs and providing flood risk management benefits.</i></p> <p><i>(b) Enhancing water temperature management on Delta tributaries either directly or through coordinated operations with other facilities.</i></p> <p><i>(c) Incorporating storage space dedicated to ecosystem benefits, such as flow management, water temperature, other water quality benefits, or providing water supplies to wildlife refuges.</i></p> <p><i>(d) Integrating new and/or expanded storage with other existing or planned storage and conveyance systems to increase ecosystem and water supply benefits. This includes developing and/or updating coordinated operations plans, and/or agreements with other storage and conveyance systems.</i></p> <p><i>(e) Contributing to the protection of water quality in the Delta and its watershed for all beneficial uses consistent with the State Water Resources Control Board’s Bay-Delta Plan.</i></p> <p><i>(f) Contributing to more natural, functional flows that support ecosystem health.</i></p> <p><i>(3) Project proponents should design and implement, where feasible, new or expanded surface water storage projects outside the Delta watershed, but within the Delta water export area, such as projects within the San Joaquin Valley, Central Coast, or Southern California regions, to:</i></p> <p><i>(a) Contribute to reduced reliance on the Delta and regional self-reliance and, particularly during dry periods, through storage of</i></p>

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		<p><i>available water supplies during wet periods for use during dry periods.</i></p> <p><i>(b) Promote conjunctive management of surface and groundwater resources, and contribute to achieving groundwater sustainability goals established pursuant to the Sustainable Groundwater Management Act or applicable local plans, as appropriate.</i></p> <p><i>(c) Contribute to a comprehensive, integrated water management approach that considers multiple water supply sources including, but not limited to, stream flow, groundwater, imported water, stormwater, and recycled water, as applicable.</i></p>
WR R12f	Implement New or Expanded Groundwater Storage	<p><i>(1) Funding, planning, and technical support provided by State and regional agencies for groundwater projects should:</i></p> <p><i>(a) Promote multiple benefits, minimize harmful effects to the ecosystem, help achieve Bay-Delta Plan objectives, as applicable, and be consistent with guidance from the State Water Resources Control Board and DWR for implementing the Sustainable Groundwater Management Act.</i></p> <p><i>(b) Promote increased groundwater recharge using locally available water, such as recharge via stream-aquifer interactions, floodwater or stormwater capture, recharge using recycled water, or others, provided such actions do not result in harmful impacts to functional flows in local streams.</i></p> <p><i>(c) Promote conjunctive management of surface water and groundwater resources, including in-lieu recharge.</i></p> <p><i>(d) Promote new or expanded groundwater banking and exchange projects.</i></p> <p><i>(e) Promote the construction of new or improved local conveyance infrastructure to convey water to and from groundwater recharge and recovery facilities.</i></p> <p><i>(f) Promote the construction of new or improved conveyance infrastructure that interconnects Delta export conveyance facilities with local conveyance facilities.</i></p> <p><i>(g) Promote implementation of the Central Valley Salt and Nitrate Management Plan and achievement of management goals and priorities for protection of water quality, where appropriate.</i></p> <p><i>(h) Promote wellhead treatment, access to conjunctively-managed surface supplies, or other means of providing access to safe, clean, and affordable water supplies for communities relying on impaired groundwater.</i></p> <p><i>(i) Demonstrate consistency with applicable Groundwater Sustainability Plans under the Sustainable Groundwater Management Act.</i></p> <p><i>(j) Include new infrastructure that is consistent with WR R12f (1)(a)-(c), above.</i></p>

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		<p>(k) <i>Assess the ecosystem and water supply impacts and benefits to the Delta, including providing mitigation, as appropriate.</i></p> <p>(l) <i>Promote opportunities for storage of flood waters (e.g., floodplain storage) or stormwater that can be managed for groundwater recharge.</i></p> <p>(2) <i>DWR should develop a model ordinance for groundwater recharge that urges cities and counties to incorporate groundwater recharge and storage into land-use planning and zoning, and to protect areas with the highest potential for groundwater recharge from incompatible uses. (Note: A representative map showing the soil suitability index for groundwater banking projects on agricultural lands is shown in Figure 3-11.</i></p> <p>(3) <i>DWR or the State Water Resources Control Board should prepare a proposal for an incentive program, in coordination with the Department of Conservation or the U.S. Department of Agriculture’s conservation programs, for landowners to protect lands with high groundwater recharge potential for the purpose of contributing to sustainable groundwater management.</i></p>
WR R12g	Promote Options for Operations of Storage and Conveyance Facilities	<p><i>Subject to completion of environmental review and approval by the lead agency, the following options for the operation of conveyance and storage are hereby promoted:</i></p> <p>(1) <i>DWR, in coordination with Reclamation, should develop a Drought Water Operations Strategy for the SWP and CVP to meet State Water Resources Control Board-specified flow and water quality criteria during extended drought conditions lasting up to six years, or for the extended timeframe recommended by the Real Time Drought Operations Team (RTDOT) describing opportunities and tools to improve routine operations to adapt to drought conditions. In developing the Strategy, DWR and Reclamation should include criteria for defining appropriate levels or stages of drought affecting the SWP and CVP, in coordination with the RTDOT agencies and the North, Central, and South Delta Water Agencies. The Strategy should consider in-Delta actions and activities, and operations and storage of other facilities or projects that support achievement of the coequal goals. This strategy should be submitted to the Delta Stewardship Council by 2020 and be updated following future declarations of emergency associated with extreme hydrological conditions pursuant to the California Emergency Services Act (Government Code Sections 8550-8668), within one year of completing an After-Action Report, or when physical or regulatory changes necessitate an update.</i></p> <p>(2) <i>DWR and Reclamation should use an adaptive management approach, consistent with the Delta Plan’s adaptive management framework and in alignment with existing collaborative adaptive management efforts, for the coordinated operation of SWP and CVP through-Delta conveyance to promote the coequal goals, including considerations for protecting, enhancing, and restoring the ecosystem and maintaining</i></p>

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		<p><i>adequate flows, flow direction, water levels, and water quality for Delta agriculture, recreation, and communities.</i></p> <p>(3) <i>Lead agencies for new or modified conveyance facilities, and new and expanded storage facilities—including those options identified in WR R12a and WR R12d should develop operational plans consistent with WR R12h, below.</i></p> <p>(4) <i>To improve water management flexibility and to support coordinated operations with new storage facilities, local agencies—in coordination with DWR and Reclamation, as appropriate—should pursue the following new or improved conveyance facilities outside of the Delta, to reduce reliance on the Delta and promote regional self-reliance:</i></p> <p>(a) <i>Facilities that promote the movement or exchange of SWP, CVP, and local water supplies, such as between the east and west sides of the San Joaquin Valley or between other regions.</i></p> <p>(b) <i>Facilities that improve groundwater recharge and/or conjunctive use in overdrafted aquifers of the San Joaquin Valley, Tulare Lake Basin, and other Delta water export areas.</i></p> <p>(c) <i>Facilities that increase groundwater banking or exchange, or that promote increased use of stormwater, recycled water, desalinated water, or other local water supplies in regions tributary to, or that rely on, Delta water supplies.</i></p>
WR R12h	Operate Delta Water Management Facilities Using Adaptive Management Principles	<p>(1) <i>Project proponents should develop plans for the operation or reoperation of water conveyance and control facilities in the Delta, or new or modified storage facilities in the Delta and its watershed, that incorporate adaptive management consistent with the Delta Plan’s adaptive management framework and further achievement of the coequal goals by:</i></p> <p>(a) <i>Including specific and measurable operating objectives (consistent with State Water Resources Control Board’s Bay-Delta Plan objectives), that address:</i></p> <p>i. <i>Protection for and enhancements to the Delta ecosystem, including improved water temperature management, while reliably delivering water.</i></p> <p>ii. <i>Avoidance or mitigation of adverse effects on in-Delta recreation and in-Delta water quality, including identifying salinity targets for the south Delta that are designed to prevent severe water quality degradation and toxic events in dry and critically dry years.</i></p> <p>iii. <i>Avoidance or mitigation of adverse effects on stream flows and water quality.</i></p> <p>iv. <i>Avoid or mitigate adverse effects on agriculture in the Delta, including identifying salinity targets suitable for the types of crops grown in the Delta.</i></p> <p>v. <i>Protection of the quality, reliability, and affordability of water supplies for communities relying on impaired water supplies,</i></p>

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		<p><i>including disadvantaged communities, consistent with California Water Code section 106.3.</i></p> <p><i>(b) Enabling diversions during periods when Delta water flow, quality, and environmental requirements are being met for improving water supply delivery reliability and flexibility to changing conditions, and for protecting, restoring, and enhancing the Delta ecosystem.</i></p> <p><i>(c) Incorporating adaptive management plans, consistent with the Delta Plan’s adaptive management framework and developed in coordination with operators and applicable regulatory agency staff, for modifying operations to meet State Water Resources Control Board flow and water quality requirements, and California Department of Fish and Wildlife conservation and recovery goals, under the following:</i></p> <ul style="list-style-type: none"> <i>i. Extended drought conditions (more than three years in duration).</i> <i>ii. Changed climate conditions including sea level rise and changed hydrologic conditions over the anticipated project life.</i> <i>iii. Extreme wet years and flood events.</i> <p><i>(d) Demonstrating that projects can contribute to a more reliable water supply, and can protect, restore, and enhance the Delta ecosystem under a range of future conditions, including changing climate and sea level rise projections from the California Natural Resources Agency or National Research Council, or other appropriate projections.</i></p> <p><i>(e) Evaluating the applicability of forecast-informed reservoir operations.</i></p> <p><i>(f) Considering coordination and integration of operations with existing and/or planned conveyance and water storage facilities to maximize their potential to contribute to the goals of the Sustainable Groundwater Management Act, and the goals of other applicable programs and plans related to sustainable groundwater, stormwater, and floodwater management.</i></p> <p><i>(g) Reviewing and updating, as needed, the flood space reservation guidelines for upstream reservoirs in coordination with the U.S. Army Corps of Engineers and reservoir owners or operators.</i></p> <p><i>(2) Project proponents should develop operation plans for new water conveyance facilities in the Delta, and new or expanded storage facilities in the Delta watershed, that:</i></p> <ul style="list-style-type: none"> <i>(a) Ensure that operations are adequately monitored, evaluated, and revised using adaptive management to make progress towards achieving defined performance measures.</i> <i>(b) Be based upon accurate, timely, and transparent water accounting and budgeting.</i> <i>(c) Ensure that operations provide water levels, water flow, and water quality suitable for in-Delta agricultural and recreational uses.</i>

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WR R12i	Update the Bay-Delta Plan and Consider Drought	<p>(1) <i>In developing and implementing updates to the Bay-Delta Plan, and flow requirements for priority tributaries to the Delta to protect beneficial uses in the Bay-Delta watershed, the State Water Resources Control Board should:</i></p> <p>(a) <i>Consider and contribute to achievement of applicable Delta Plan performance measures.</i></p> <p>(b) <i>Require water diverters in the Delta and its watershed that are responsible for meeting Bay-Delta Plan requirements, including but not limited to DWR and Reclamation, to develop a process and plan for meeting applicable flow and water quality requirements during extended drought conditions (characterized by multiple, successive dry years) to further the coequal goals and minimize reliance on temporary urgency change petitions and related requests.</i></p>
WR R12j	Operate New or Improved Conveyance and Diversion Facilities Outside of the Delta	<p>(1) <i>Conveyance facilities outside the Delta should be operated in consideration of effects on Delta water quality, the timing and magnitude of flows in the Delta, water supplies available for export from the Delta, and effects on opportunities to protect, restore, and enhance the Delta ecosystem.</i></p> <p>(2) <i>In allocating funding for new water conveyance and conveyance improvement projects outside the Delta that support regional self-reliance, the State should give preference to projects that:</i></p> <p>(a) <i>Reduce reliance on the Delta for water supply during dry and critically dry years by the specific designation, in operational agreements or plans, of carryover storage for beneficial use during these periods.</i></p> <p>(b) <i>Improve conjunctive management of surface and groundwater resources and contribute to achieving groundwater sustainability goals established pursuant to the Sustainable Groundwater Management Act or local plans, as appropriate.</i></p> <p>(c) <i>Support ecosystem enhancement and/or provide more natural, functional flows in the Delta and its tributaries.</i></p> <p>(d) <i>Improve the ability of regions that rely on the Delta, for all or a portion of their water supplies, to withstand and adapt to changing current and future hydrologic conditions.</i></p> <p>(e) <i>Improve the quality, reliability, and affordability of water supplies for communities relying on impaired water supplies, including disadvantaged communities, consistent with California Water Code section 106.3.</i></p> <p>(f) <i>Contribute to a comprehensive, integrated water management approach that considers multiple water supply sources including, but not limited to, stream flow, groundwater, imported water, stormwater, desalinated water, water saved through increased efficiency, and recycled water, as applicable.</i></p> <p>(g) <i>Improve flexibility to accommodate water market transfer and exchange opportunities that benefit the environment.</i></p>

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WR R12k	Promote Water Operations Monitoring Data Management, and Data Transparency	<i>In meeting the requirements of the 2016 Open and Transparent Water Data Act, DWR should coordinate with the Council to incorporate information related to Delta Plan performance measures and links to the Council's online tracking and reporting tools, as appropriate, in an effort to promote transparency and accessibility of data in tracking progress toward achieving the coequal goals.</i>
WR R13	Complete Surface Water Storage Studies	<i>The California Department of Water Resources should complete surface water storage investigations of proposed off-stream surface storage projects by December 31, 2012, including an evaluation of potential additional benefits of integrating operations of new storage with proposed Delta conveyance improvements, and recommend the critical projects that need to be implemented to expand the state's surface storage.</i>
WR R14	Identify Near-term Opportunities for Storage, Use, and Water Transfer Projects	<i>The California Department of Water Resources, in coordination with the California Water Commission, Bureau of Reclamation, State Water Resources Control Board, California Department of Public Health, the Delta Stewardship Council, and other agencies and stakeholders, should conduct a survey to identify projects throughout California that could be implemented within the next 5 to 10 years to expand existing surface and groundwater storage facilities, create new storage, improve operation of existing Delta conveyance facilities, and enhance opportunities for conjunctive use programs and water transfers in furtherance of the coequal goals. The California Water Commission should hold hearings and provide recommendations to the California Department of Water Resources on priority projects and funding.</i>
WR R15	Improve Water Transfer Procedures	<i>The California Department of Water Resources and the State Water Resources Control Board should work with stakeholders to identify and recommend measures to reduce procedural and administrative impediments to water transfers and protect water rights and environmental resources by December 31, 2016. These recommendations should include measures to address potential issues with recurring transfers of up to 1 year in duration and improved public notification for proposed water transfers.</i>
WR P2 (23 CCR section 5004)	Transparency in Water Contracting	<p><i>(a) The contracting process for water from the State Water Project and/or the Central Valley Project must be done in a publicly transparent manner consistent with applicable policies of the California Department of Water Resources and the Bureau of Reclamation referenced below.</i></p> <p><i>(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers the following:</i></p> <p><i>(1) With regard to water from the State Water Project, a proposed action to enter into or amend a water supply or water transfer contract subject to California Department of Water Resources Guidelines 03-09 and/or 03-10 (each dated July 3, 2003), which are attached as Appendix 2A; and</i></p>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
		<p><i>(2) With regard to water from the Central Valley Project, a proposed action to enter into or amend a water supply or water transfer contract subject to section 226 of P.L. 97-293, as amended or section 3405(a)(2)(B) of the Central Valley Project Improvement Act, Title XXXIV of Public Law 102-575, as amended, which are attached as Appendix 2B, and Rules and Regulations promulgated by the Secretary of the Interior to implement these laws.</i></p>
WR R16	Supplemental Water Use Reporting	<p><i>The State Water Resources Control Board should require water rights holders submitting supplemental statements of water diversion and use or progress reports under their permits or licenses to report on the development and implementation of all water efficiency and water supply projects and on their net (consumptive) use.</i></p>
WR R17	Integrated Statewide System for Water Use Reporting	<p><i>The California Department of Water Resources, in coordination with the State Water Resources Control Board, California Department of Public Health, California Public Utilities Commission, California Energy Commission, Bureau of Reclamation, California Urban Water Conservation Council, and other stakeholders, should develop a coordinated statewide system for water use reporting. This system should incorporate recommendations for inclusion of data needed to better manage California's water resources. The system should be designed to simplify reporting; reduce the number of required reports where possible; be made available to the public online; and be integrated with the reporting requirements for the urban water management plans, agricultural water management plans, and integrated regional water management plans. Water suppliers that export water from, transfer water through, or use water in the Delta watershed should be full participants in the data base.</i></p>

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WR R18	California Water Plan	<i>The California Department of Water Resources, in consultation with the State Water Resources Control Board, and other agencies and stakeholders, should evaluate and include in the next and all future California Water Plan updates information needed to track water supply reliability performance measures identified in the Delta Plan, including an assessment of water efficiency and new water supply development, regional water balances, improvements in regional self-reliance, reduced regional reliance on the Delta, and reliability of Delta exports, and an overall assessment of progress in achieving the coequal goals.</i>
WR R19	Financial Needs Assessment	<i>As part of the California Water Plan Update, the California Department of Water Resources should prepare an assessment of the state’s water infrastructure. This should include the costs of rehabilitating/replacing existing infrastructure, an assessment of the costs of new infrastructure, and an assessment of needed resources for monitoring and adaptive management for these projects. The California Department of Water Resources should also consider a survey of agencies that may be planning small-scale projects (such as storage or conveyance) that improve water supply reliability.</i>
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ER P1 (23 CCR section 5005)	Delta Flow Objectives	<p><i>(a) The State Water Resources Control Board’s Bay Delta Water Quality Control Plan flow objectives shall be used to determine consistency with the Delta Plan. If and when the flow objectives are revised by the State Water Resources Control Board, the revised flow objectives shall be used to determine consistency with the Delta Plan.</i></p> <p><i>(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, the policy set forth in subsection (a) covers a proposed action that could significantly affect flow in the Delta.</i></p>
ER R1	Update Delta Flow Objectives	<i>The State Water Resources Control Board (SWRCB) should maintain a regular schedule of reviews of the Bay-Delta Plan to reflect changing conditions due to climate change and other factors. The SWRCB should consult with the Delta Science Program on adaptive management and the use of best available science.</i>

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ER PA (Not yet codified; rule-making in progress)	Disclose Contributions to Restoring Ecosystem Function and Providing Social Benefits	<p><i>(a) A complete certification of consistency for a covered action described in Subsection (b) shall disclose and include all of the information and documentation required by the following Sections in Appendix 3A:</i></p> <ol style="list-style-type: none"> <i>1. Section 1 (Priority Attributes) of Appendix 3A (Disclosing Contributions to Restoring Ecosystem Function and Providing Social Benefits) to demonstrate that the covered action has one or more of the priority attributes, to disclose its contribution to the restoration of a resilient, functioning Delta ecosystem, and to identify the Ecosystem Restoration Tier associated with that covered action based on the identified priority attributes; and</i> <i>2. Section 2 (Social Benefits) of Appendix 3A (Disclosing Contributions to Restoring Ecosystem Function and Providing Social Benefits) to demonstrate and disclose the cultural, recreational, agricultural, and/or natural resource benefits anticipated to result from project implementation.</i> <p><i>(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy applies to a covered action that includes protection, enhancement, or restoration of the ecosystem.</i></p>

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ER P2 (Not yet codified; rule-making in progress)	Restore Habitats at Appropriate Elevations	<p>a) <i>The certification of consistency for a covered action described in Subsection (d) must be carried out in a manner consistent with Appendix 4A, which provides guidance on appropriate elevations for particular ecosystem types within the Sacramento-San Joaquin Delta and Suisun Marsh.</i></p> <ol style="list-style-type: none"> 1. <i>The certification of consistency must include a completed Appendix 4A and all of the documentation and information required by Appendix 4A.</i> 2. <i>If a covered action is not consistent with the Table 1.1 in Appendix 4A, the certification of consistency shall provide, based on best available science, the rationale for any inconsistency with Table 1.1 and how it is nonetheless consistent with this policy.</i> <p>b) <i>The certification of consistency for a covered action that takes place, in whole or in part, in the Intertidal Elevation Band and Sea Level Rise Accommodation Band shall, based on best available science:</i></p> <ol style="list-style-type: none"> 1. <i>Explain, how the action is designed to accommodate each of the following:</i> <ol style="list-style-type: none"> i. <i>future marsh migration;</i> ii. <i>anticipated sea level rise; and</i> iii. <i>tidal inundation; and</i> 2. <i>If the action does not implicate one or more of the elements set forth in subsection (1) of section (b) of this regulation, for each such element, explain why it does not.</i> 3. <i>The information required by this regulation may be included in an adaptive management plan, where required by section 5002 of this Chapter.</i> <p>c) <i>The certification of consistency for a covered action that takes place, in whole or in part, in the Shallow Subtidal Elevation Band or the Deep Subtidal Elevation Band shall explain, based on best available science, how the action is designed to safeguard against levee failure over the design life of the project. This information may be included in an adaptive management plan, where required by section 5002 of this Chapter.</i></p> <p>d) <i>For purposes of Water Code Section 85057.5(a)(3) and Section 5001(j)(1)(E) of this Chapter, this policy applies to a covered action that includes protection, restoration, or enhancement of the ecosystem.</i></p>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
ER P3 (Not yet codified; rule-making in progress)	Protect Opportunities to Restore Habitat	<p>(a) <i>Within the priority habitat restoration areas depicted in Appendix 5, significant adverse impacts to the opportunity to restore habitat as described in section 5006 of this Chapter, must be avoided or mitigated.</i></p> <p>(b) <i>Impacts referenced in subsection (a) will be deemed to be avoided or mitigated if the project is designed and implemented so that it will not preclude or otherwise interfere with the ability to restore habitat as described in section 5006 of this Chapter.</i></p> <p>(c) <i>If the impacts referenced in subsection (a) are mitigated (rather than avoided), they must be mitigated to the extent that the project has no significant impact on the opportunity to restore habitat as described in section 5006 of this Chapter.</i></p> <p>(d) <i>For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers proposed actions in the priority habitat restoration areas depicted in Appendix 5. It does not cover proposed actions outside those areas.</i></p>
ER P4 (Not yet codified; rule-making in progress)	Expand Floodplains and Riparian Habitats in Levee Projects	<p>(a) <i>Certifications of consistency for levee projects must evaluate, and where feasible incorporate into the levee project, alternatives that would increase floodplains and riparian habitats.</i></p> <ol style="list-style-type: none"> 1. <i>Levee projects located in the following areas (as depicted in Appendix 8A): (1) The Sacramento River between the Deepwater Ship Channel and Steamboat Slough, the San Joaquin River from the Stanislaus River confluence to Rough and Ready Island, the Stanislaus River, the Cosumnes River, Middle River, Old River, Paradise Cut, Elk Slough, Sutter Slough; and the North and South Forks of the Mokelumne River, and (2) Urban levee improvement projects in the cities of West Sacramento and Sacramento, shall evaluate alternatives that would remove all or a portion of the original levee prism in order to physically expand the width of the channel.</i> 2. <i>All levee projects located in whole or in part in the Delta shall evaluate alternatives that would increase levee waterside habitat.</i> <p>(b) <i>For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action to construct a new flood control work or make a permanent structural change or improvement that enhances a flood control work's function, changes its level of protection, or adapts it for new or different use.</i></p>
ER RA	Increase Public Funding for Restoring Ecosystem Function	<p><i>New funding sources are needed to achieve the scale of ecosystem restoration envisioned by the Delta Reform Act. Future State funding opportunities for implementing restoration projects in the Delta, including grant and loan programs, should be directed to projects that would achieve Ecosystem Restoration Tier 1 or 2, as defined in Appendix 3A.</i></p>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
ER RB	Use Good Neighbor Checklist to Coordinate Restoration with Adjacent Uses	<i>Restoration projects should use the Good Neighbor Checklist in the planning and design of restoration projects, in order to avoid or reduce conflicts with existing uses.</i>
ER R4	Exempt Delta Levees from the U.S. Army Corps of Engineers' Vegetation Policy	<i>Considering the ecosystem value of remaining riparian and shaded riverine aquatic habitat along Delta levees, the U.S. Army Corps of Engineers should agree with the California Department of Fish and Wildlife and the California Department of Water Resources on a variance that exempts Delta levees from the U.S. Army Corps of Engineers' levee vegetation policy where appropriate.</i>
ER R5	Update the Suisun Marsh Protection Plan	<i>The San Francisco Bay Conservation and Development Commission should update the Suisun Marsh Protection Plan to adapt to sea level rise and ensure consistency with the Suisun Marsh Preservation Act, the Delta Reform Act, and the Delta Plan, and support local government and districts with jurisdiction in the Suisun Marsh in amending their components of the Suisun Marsh Local Protection Program accordingly.</i>
ER RC	Fund Targeted Subsidence Reversal Actions	<p><i>(a) The Delta Conservancy should develop incentive programs for public and private land owners that encourage land management practices that stop subsidence on deeply subsided lands in the Delta and Suisun Marsh.</i></p> <p><i>(b) In order to ensure the long-term durability of state investments in restoration, State agencies that fund ecosystem restoration in subsided areas should direct investments to areas that have opportunities to both reverse subsidence and restore intertidal marsh habitat.</i></p>
ER RD	Funding to Enhance Working Landscapes	<i>State agencies should be provided with funding in order to provide resources and support to Resource Conservation Districts (RCDs), Reclamation Districts (RDs), and other local agencies and districts, in their efforts to restore ecosystem function or improve agricultural land management practices that support native species. State agencies should work with RCDs, RDs, and other local agencies and districts, to adaptively manage agricultural land management practices to improve habitat conditions for native species.</i>
ER RE	Develop and Update Management Plans to Halt or Reverse Subsidence on Public Lands	<i>For all publicly-owned lands in the Delta or Suisun Marsh, State and local agencies, including Reclamation Districts, should develop or update plans that identify land management goals; identify appropriate public or private uses for that property; and describe the operation and maintenance requirements needed to implement management goals. These plans should address subsidence and consider the feasibility of subsidence reversal.</i>
ER P5 (23 CCR section 5009)	Avoid Introductions of and Habitat Improvements for Invasive Nonnative Species	<p><i>(a) The potential for new introductions of or improved habitat conditions for nonnative invasive species, striped bass, or bass must be fully considered and avoided or mitigated in a way that appropriately protects the ecosystem.</i></p> <p><i>(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that has</i></p>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
		<i>the reasonable probability of introducing or improving habitat conditions for nonnative invasive species.</i>
ER R7	Prioritize and Implement Actions to Control Nonnative Invasive Species	<i>The Delta Conservancy, Delta Science Program, California Department of Fish and Wildlife, California Department of Food and Agriculture, California Department of Parks and Recreation, Division of Boating and Waterways, and other State and federal agencies should develop and implement communication and funding strategies to manage existing nonnative invasive species and for rapid response to new introductions of nonnative invasive species, based on scientific expertise and research.</i>
ER RH	Prioritize Unscreened Diversions within the Delta	<i>The California Department of Fish and Wildlife should collect field data to inform prioritization of unscreened diversions within the Delta.</i>
ER RI	Fund Projects to Improve Survival of Juvenile Salmon	<i>Public agencies should fund and implement projects that improve aquatic habitat conditions and reduce predation risk for juvenile salmon along the priority migration corridors identified in Chapter 4, Figure 4-8. Projects that could improve survival of juvenile salmon include levee setbacks and waterside habitat improvements, placement of fish guidance structures, and nonnative aquatic weed management.</i>
ER R8	Manage Hatcheries to Reduce Risk of Adverse Effects	<i>All public agencies that manage hatcheries potentially affecting listed fish species should develop, or continue to develop, periodically update, and implement scientifically sound Hatchery and Genetic Management Plans (HGMPs) to reduce risks to Central Valley natural-origin and listed species.</i>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
ER R9	Coordinate Fish Migration and Survival Research	<i>The California Department of Fish and Wildlife, in cooperation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, should seek coordination among researchers studying juvenile anadromous fish migration pathways and survival upstream of and within the Delta waterways to improve synthesis of results across research efforts and application to adaptive management actions.</i>
ER RF	Support Implementation of Ecosystem Restoration	<p><i>Local, State and federal agencies should coordinate to support implementation of ecosystem restoration, and the Delta Plan Interagency Implementation Committee (DPIIC) should:</i></p> <ul style="list-style-type: none"> <i>(a) Consider establishing an ecosystem restoration subcommittee that includes tribal representation.</i> <i>(b) Develop strategies for acquisition and long-term ownership and management of lands necessary to achieve ecosystem restoration consistent with the guidance in Appendix Q2.</i> <i>(c) Develop a funding strategy that identifies a portfolio of approaches to remove institutional barriers and fund Ecosystem Restoration Tier 1 or 2 actions within the Delta.</i> <i>(d) Establish program-level endangered species permitting mechanisms that increase efficiency for Ecosystem Restoration Tier 1 or 2 actions within the Delta and compatible ecosystem restoration projects within the Delta watershed.</i> <i>(e) Coordinate with the Delta Science Program to align State, federal, and local resources for scientific support of restoration efforts, including adaptive management, data tools, monitoring, synthesis, and communication.</i> <i>(f) Develop a landscape-scale strategy for recreational access to existing and future restoration sites, where appropriate and while maintaining ecological value.</i> <i>(g) Increase tribal engagement and input in planning conducted by agencies responsible for implementing and coordinating ecosystem restoration and protection projects in the Delta.</i>
ER RG	Align State Restoration Plans and Conservation Strategies with the Delta Plan	<p><i>Agencies should coordinate, and the Delta Plan Interagency Implementation Committee (DPIIC) should consider establishing a subcommittee, to align State, local, or regional restoration strategies, plans or programs in the Delta to be consistent with the priority attributes described in Appendix Q2. These include:</i></p> <ul style="list-style-type: none"> <i>(a) The Delta Conservation Framework;</i> <i>(b) The CVFPP Conservation Strategy;</i> <i>(c) The Public Lands Strategy;</i> <i>(d) Regional Conservation Investment Strategies;</i> <i>(e) Regional Conservation Strategies or Partnerships; and.</i> <i>(f) San Francisco Bay and Suisun Marsh Conservation Strategies, Investments and Partnerships, as appropriate.</i>

Chapter 5

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
DP R1	Designate the Delta as a National Heritage Area	<i>The Delta Protection Commission should complete its application for designation of the Delta and Suisun Marsh as a National Heritage Area, and the federal government should complete the process in a timely manner.</i>
DP R2	Designate State Route 160 as a National Scenic Byway	<i>The California Department of Transportation should seek designation of State Route 160 as a National Scenic Byway, and prepare and implement a scenic byway plan for it.</i>
DP P1 (23 CCR section 5010)	Locate New Urban Development Wisely	<p><i>(a) New residential, commercial, and industrial development must be limited to the following areas, as shown in Appendix 6 and Appendix 7:</i></p> <ul style="list-style-type: none"> <i>(1) Areas that city or county general plans as of May 16, 2013, designate for residential, commercial, and industrial development in cities or their spheres of influence;</i> <i>(2) Areas within Contra Costa County's 2006 voter-approved urban limit line, except no new residential, commercial, and industrial development may occur on Bethel Island unless it is consistent with the Contra Costa County general plan effective as of May 16, 2013;</i> <i>(3) Areas within the Mountain House General Plan Community Boundary in San Joaquin County; or</i> <i>(4) The unincorporated Delta towns of Clarksburg, Courtland, Hood, Locke, Ryde, and Walnut Grove.</i> <p><i>(b) Notwithstanding subsection (a), new residential, commercial, and industrial development is permitted outside the areas described in subsection (a) if it is consistent with the land uses designated in county general plans as of May 16, 2013, and is otherwise consistent with this Chapter.</i></p> <p><i>(c) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers proposed actions that involve new residential, commercial, and industrial development that is not located within the areas described in subsection (a). In addition, this policy covers any such action on Bethel Island that is inconsistent with the Contra Costa County general plan effective as of May 16, 2013. This policy does not cover commercial recreational visitor-serving uses or facilities for processing of local crops or that provide essential services to local farms, which are otherwise consistent with this Chapter.</i></p> <p><i>(d) This policy is not intended in any way to alter the concurrent authority of the Delta Protection Commission to separately regulate development in the Delta's Primary Zone.</i></p>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
DP P2 (23 CCR section 5011)	Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats	<p><i>(a) Water management facilities, ecosystem restoration, and flood management infrastructure must be sited to avoid or reduce conflicts with existing uses or those uses described or depicted in city and county general plans for their jurisdictions or spheres of influence when feasible, considering comments from local agencies and the Delta Protection Commission. Plans for ecosystem restoration must consider sites on existing public lands, when feasible and consistent with a project’s purpose, before privately owned sites are purchased. Measures to mitigate conflicts with adjacent uses may include, but are not limited to, buffers to prevent adverse effects on adjacent farmland.</i></p> <p><i>(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers proposed actions that involve the siting of water management facilities, ecosystem restoration, and flood management infrastructure.</i></p>
DP R3	Plan for the Vitality and Preservation of Legacy Communities	<p><i>Local governments, in cooperation with the Delta Protection Commission and Delta Conservancy, should prepare plans for each community that emphasize its distinctive character, encourage historic preservation, identify opportunities to encourage tourism, serve surrounding lands, or develop other appropriate uses, and reduce flood risks.</i></p>
DP R4	Buy Rights of Way from Willing Sellers When Feasible	<p><i>Agencies acquiring land for water management facilities, ecosystem restoration, and flood management infrastructure should purchase from willing sellers, when feasible, including consideration of whether lands suitable for proposed projects are available at fair prices.</i></p>
DP R5	Provide Adequate Infrastructure	<p><i>The California Department of Transportation, local agencies, and utilities should plan infrastructure, such as roads and highways, to meet needs of development consistent with sustainable community strategies, local plans, the Delta Protection Commission’s Land Use and Resource Management Plan for the Primary Zone of the Delta, and the Delta Plan.</i></p>
DP R6	Plan for State Highways	<p><i>The Delta Stewardship Council, as part of the prioritization of State levee investments called for in Water Code section 85306, should consult with the California Department of Transportation as provided in Water Code section 85307(c) to consider the effects of flood hazards and sea level rise on State highways in the Delta.</i></p>
DP R7	Subsidence Reduction and Reversal	<p><i>The following actions should be considered by the appropriate State agencies to address subsidence reversal:</i></p> <ul style="list-style-type: none"> ▪ <i>State agencies should not renew or enter into agricultural leases on Delta or Suisun Marsh islands if the actions of the lessee promote or contribute to subsidence on the leased land, unless the lessee participates in subsidence reversal or reduction programs.</i> ▪ <i>State agencies currently conducting subsidence reversal projects in the Delta on State-owned lands should investigate options for scaling up these projects if they have been deemed successful. The California Department of Water Resources should develop a plan, including</i>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
		<p><i>funding needs, for increasing the extent of their subsidence reversal and carbon sequestration projects to 5,000 acres by January 1, 2017.</i></p> <ul style="list-style-type: none"> ▪ <i>The Delta Stewardship Council, in conjunction with the California Air Resources Board (CARB) and the Delta Conservancy, should investigate the opportunity for the development of a carbon market whereby Delta farmers could receive credit for carbon sequestration by reducing subsidence and growing native marsh and wetland plants. This investigation should include the potential for developing offset protocols applicable to these types of plants for subsequent adoption by the CARB.</i>
DP R8	Promote Value-added Crop Processing	<i>Local governments and economic development organizations, in cooperation with the Delta Protection Commission and the Delta Conservancy, should encourage value-added processing of Delta crops in appropriate locations.</i>
DP R9	Encourage Agritourism	<i>Local governments and economic development organizations, in cooperation with the Delta Protection Commission and the Delta Conservancy, should support growth in agritourism, particularly in and around legacy communities. Local plans should support agritourism where appropriate.</i>
DP R10	Encourage Wildlife-friendly Farming	<i>The California Department of Fish and Wildlife, the Delta Conservancy, and other ecosystem restoration agencies should encourage habitat enhancement and wildlife-friendly farming systems on agricultural lands to benefit both the environment and agriculture.</i>
DP R11	Provide New and Protect Existing Recreation Opportunities	<i>Water management and ecosystem restoration agencies should provide recreation opportunities, including visitor-serving business opportunities, at new facilities and habitat areas whenever feasible; and existing recreation facilities should be protected, using California State Parks' Recreation Proposal for the Sacramento-San Joaquin Delta and Suisun Marsh and Delta Protection Commission's Economic Sustainability Plan for the Sacramento-San Joaquin Delta as guides.</i>
DP R12	Encourage Partnerships to Support Recreation and Tourism	<i>The Delta Protection Commission and Delta Conservancy should encourage partnerships between other State and local agencies, and local landowners and business people to expand recreation, including boating, promote tourism, and minimize adverse impacts to nonrecreational landowners.</i>
DP R13	Expand State Recreation Areas	<i>California State Parks should add or improve recreation facilities in the Delta in cooperation with other agencies. As funds become available, it should fully reopen Brannan Island State Recreation Area, complete the park at Delta Meadows-Locke Boarding House, and consider adding new State parks at Barker Slough, Elkhorn Basin, the Wright-Elmwood Tract, and south Delta.</i>
DP R14	Enhance Nature-based Recreation	<i>The California Department of Fish and Wildlife, in cooperation with other public agencies, should collaborate with nonprofits, private landowners, and business partners to expand wildlife viewing, angling, and hunting opportunities.</i>
DP R15	Promote Boating Safety	<i>The California Department of Boating and Waterways should coordinate with the U.S. Coast Guard and State and local agencies on an updated marine patrol strategy for the region.</i>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
DP R16	Encourage Recreation on Public Lands	<i>Public agencies owning land should increase opportunities, where feasible, for bank fishing, hunting, levee-top trails, and environmental education.</i>
DP R17	Enhance Opportunities for Visitor-serving Businesses	<i>Cities, counties, and other local and State agencies should work together to protect and enhance visitor-serving businesses by planning for recreation uses and facilities in the Delta, providing infrastructure to support recreation and tourism, and identifying settings for private visitor-serving development and services.</i>
DP R18	Support the Ports of Stockton and West Sacramento	<i>The ports of Stockton and West Sacramento should encourage maintenance and carefully designed and sited development of port facilities.</i>
DP R19	Plan for Delta Energy Facilities	<i>The California Energy Commission and California Public Utilities Commission should cooperate with the Delta Stewardship Council as described in Water Code section 85307(d) to identify actions that should be incorporated in the Delta Plan by 2017 to address the needs of Delta energy development, storage, and distribution.</i>
Chapter 6		
WQ R1	Protect Beneficial Uses	<i>Water quality in the Delta should be maintained at a level that supports, enhances, and protects beneficial uses identified in the applicable State Water Resources Control Board or regional water quality control board water quality control plans.</i>
WQ R2	Identify Covered Action Impacts	<i>Covered actions should identify any significant impacts to water quality.</i>
WQ R3	Special Water Quality Protections for the Delta	<i>The State Water Resources Control Board or regional water quality control board should evaluate and, if appropriate, propose special water quality protections for priority habitat restoration areas identified in recommendation ER R2 or other areas of the Delta where new or increased discharges of pollutants could adversely impact beneficial uses.</i>
WQ R4	Complete Central Valley Drinking Water Policy	<i>The Central Valley Regional Water Quality Control Board should complete the Central Valley Drinking Water Policy by July 2013.</i>
WQ R5	Complete North Bay Aqueduct Alternative Intake Project	<i>The California Department of Water Resources should complete the North Bay Aqueduct Alternate Intake Project Environmental Impact Report by December 31, 2012, and begin construction as soon as possible thereafter.</i>
WQ R6	Protect Groundwater Beneficial Uses	<i>The State Water Resources Control Board should complete development of a Strategic Workplan for protection of groundwater beneficial uses, including groundwater use for drinking water, by December 31, 2012.</i>
WQ R7	Participation in CV-SALTS	<i>The State Water Resources Control Board and Central Valley Regional Water Quality Control Board should consider requiring participation by all relevant water users that are supplied water from the Delta or the Delta watershed or</i>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
WQ R8	Completion of Regulatory Processes, Research, and Monitoring for Water Quality Improvement	<p><i>discharge wastewater to the Delta or the Delta watershed to participate in the Central Valley Salinity Alternatives for Long-Term Sustainability Program.</i></p> <p><i>The State Water Resources Control Board and the San Francisco Bay and Central Valley Regional Water Quality Control Boards are currently engaged in regulatory processes, research, and monitoring essential to improving water quality in the Delta. In order to achieve the coequal goals, it is essential that these ongoing efforts be completed and, if possible, accelerated, and that the Legislature and Governor devote sufficient funding to make this possible. The Delta Stewardship Council specifically recommends that:</i></p> <ul style="list-style-type: none"> ▪ <i>The State Water Resources Control Board should complete development of the proposed policy for nutrients for inland surface waters of the State of California by January 1, 2014.</i> ▪ <i>The State Water Resources Control Board and the San Francisco Bay and Central Valley Regional Water Quality Control Boards should prepare and begin implementation of a study plan for the development of objectives for nutrients in the Delta and Suisun Marsh by January 1, 2014. Studies needed for development of Delta and Suisun Marsh nutrient objectives should be completed by January 1, 2016. The water boards should adopt and begin implementation of nutrient objectives, either narrative or numeric, where appropriate, for the Delta and Suisun Marsh by January 1, 2018.</i> ▪ <i>The State Water Resources Control Board and the Central Valley Regional Water Quality Control Board should complete the Central Valley Pesticide Total Maximum Daily Load and Basin Plan Amendment for diazinon and chlorpyrifos by January 1, 2013.</i> ▪ <i>The State Water Resources Control Board and the Central Valley Regional Water Quality Control Board should prioritize and accelerate the completion of the Central Valley Pesticide Total Maximum Daily Load and Basin Plan Amendment for pyrethroids by January 1, 2016.</i> ▪ <i>The State Water Resources Control Board and the San Francisco Bay and Central Valley Regional Water Quality Control Boards have completed Total Maximum Daily Load and Basin Plan Amendments for methylmercury, and efforts to support their implementation should be coordinated. Parties identified as responsible for current methylmercury loads or proponents of projects that may increase methylmercury loading in the Delta or Suisun Marsh should participate in control studies or implement site-specific study plans that evaluate practices to minimize methylmercury discharges. The Central Valley Regional Water Quality Control Board should review these control studies by December 31, 2018, and determine control measures for implementation starting in 2020.</i>

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WQ R9	Implement Delta Regional Monitoring Program	<i>The State Water Resources Control Board and Regional Water Quality Control Boards should work collaboratively with the California Department of Water Resources, California Department of Fish and Wildlife, and other agencies and entities that monitor water quality in the Delta to develop and implement a Delta Regional Monitoring Program that will be responsible for coordinating monitoring efforts so Delta conditions can be efficiently assessed and reported on a regular basis.</i>
WQ R10	Evaluate Wastewater Recycling, Reuse, or Treatment	<i>The Central Valley Regional Water Quality Control Board, consistent with existing water quality control plan policies and water rights law, should require responsible entities that discharge wastewater treatment plant effluent or urban runoff to Delta waters to evaluate whether all or a portion of the discharge can be recycled, otherwise used, or treated in order to reduce contaminant loads to the Delta by January 1, 2014.</i>
WQ R11	Manage Dissolved Oxygen in Stockton Ship Channel	<i>The State Water Resources Control Board and the Central Valley Regional Water Quality Control Board should complete Phase 2 of the Total Maximum Daily Load and Basin Plan Amendment for dissolved oxygen in the Stockton Deep Water Ship Channel by January 1, 2015.</i>
WQ R12	Manage Dissolved Oxygen in Suisun Marsh	<i>The State Water Resources Control Board and the San Francisco Bay Regional Water Quality Control Board should complete the Total Maximum Daily Load and Basin Plan Amendment for dissolved oxygen in Suisun Marsh wetlands by January 1, 2014.</i>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
Chapter 7		
RR R1	Implement Emergency Preparedness and Response	<p><i>The following actions should be taken to promote effective emergency preparedness and response in the Delta:</i></p> <ul style="list-style-type: none"> ▪ <i>Responsible local, State, and federal agencies with emergency response authority should continue to implement the recommendations of the Sacramento-San Joaquin Delta Multi-Hazard Coordination Task Force (Water Code section 12994.5). Such actions should support the development of a regional response system for the Delta.</i> ▪ <i>Materials should be stockpiled in appropriate locations to make post-disaster repairs of breaches in levees along the water supply reliability corridor identified in the Delta Plan’s Figure 7-6, the western islands important to protection of water quality, and other levees, to complement improvement of levees as provided in RR P1.</i> ▪ <i>Local levee-maintaining agencies, with assistance from DWR, should develop their own emergency action plans, training, and floodfight material stockpiles.</i> ▪ <i>State and local agencies, and regulated utilities that own and/or operate infrastructure in the Delta should prepare coordinated emergency response plans to protect the infrastructure from long-term outages resulting from failures of the Delta levees. The emergency procedures should consider methods that also would protect Delta land use and ecosystem.</i>
RR R2	Modernize Levee Information Management	<p>a) Require Adequate Levee Inspections. <i>In order to gather information about Delta levee conditions and maintenance needs, the Central Valley Flood Protection Board should update its guidelines for the Delta Levees Maintenance Subventions Program to require local levee maintaining agencies participating in the program to annually inspect their Delta levees in accordance with DWR’s guidelines for Local Agency Project and Nonproject Levee Maintenance Inspection and to file their inspection reports electronically with DWR. Costs of inspections should continue to be reimbursable through the Delta Levees Maintenance Subventions Program.</i></p> <p>b) Provide Delta Levee Investment Decision Support. <i>The Delta Stewardship Council should use information from levee inspections reported to DWR and from DWR’s annual reports about its levee investments pursuant to this plan’s policy regarding levee investment priorities (RR P1) to maintain the decision support tool developed during preparation of this Delta Plan amendment.</i></p>

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
RR R3	Provide Adequate State Funds to Support Levee Maintenance and Improvement	<i>Adequate State funds to support levee maintenance and improvement should continue to be provided through the Delta Levees Maintenance Subventions Program, the Delta Levee Special Projects Program, and through programs that implement the Central Valley Flood Protection Plan.</i>
RR P1 (23 CCR section 5012)	Prioritization of State Investments in Delta Levees and Risk Reduction	<p>a) Fund levee operation and maintenance. For the purposes of Water Code Section 85306, State investments in levee operation and maintenance of Delta project levees and nonproject levees shall be prioritized as follows:</p> <ul style="list-style-type: none"> (1) For project levees, funding should be prioritized to ensure levees are operated and maintained in accordance with Code of Federal Regulations, Title 33, Part 208.10 and applicable federal Operation and Maintenance manuals, active in federal Public Law 84- 99 Rehabilitation Program, and consistent with Central Valley Flood Protection Board Resolution No. 2018-06 for Acceptable Operation and Maintenance of the State Plan of Flood Control. (2) For nonproject levees, funding should be prioritized to ensure levees are operated and maintained to protect the Delta’s physical characteristics. <p>b) Delta Levees Investment Strategy. The priorities listed in Table 1 below and depicted in Delta Plan Appendix P dated August 2021, which is incorporated by reference, shall guide State discretionary investments in the improvement of Delta levees. The California Department of Water Resources’ funding decisions are subject to its consideration of the benefits, costs, engineering considerations, and other factors. As the California Department of Water Resources selects levee improvement projects for funding through its levee funding programs, it should fund projects at the Very-High priority islands or tracts, before funding projects at High Priority or Other Priority islands or tracts. If available funds are sufficient to fully fund levee improvement projects at the Very-High Priority islands or tracts, then funds for levee improvement projects on High Priority islands or tracts should be funded and after those projects have been fully funded, then levee improvement projects at Other Priority islands or tracts may be funded.</p> <p>c) Annual Report. The California Department of Water Resources shall submit a written annual report, as described in paragraph (2), to the Council, as well as present the report to the Council, on State funds distributed or provided by the California Department of Water Resources within the legal Delta. At least 45 days prior to the oral presentation before the Council, and no later than March 1 of each calendar year, the California Department of Water Resources shall submit the written annual report to the Council and make the report publicly available.</p>

The report shall include:

(A) A description of all discretionary State funding for levees awarded by the California Department of Water Resources, during the reporting year; including both of the following: (i) Levee improvement. (ii) Levee operation and maintenance

(B) A list of each levee improvement project proposal submitted to the California Department of Water Resources for funding, regardless of whether the California Department of Water Resources awarded funding to the project;

(C) A list of the improvement projects awarded funding, the funding level awarded, the local cost share, and the applicable priority of the island or tract from Table 1 in subsection (b) where the levee improvement project is located;

(D) A description, for each awarded project, of changes (when completed) to levee geometry, the specific locations of those changes, and expected changes in the level of flood protection provided or standard achieved;

(E) If the California Department of Water Resources awards funds for any levee improvement project that is inconsistent with the priorities identified in subsection (b), the annual report shall identify for each project: how the funding is inconsistent with the priorities, describe why variation from the priorities is necessary, and explain how the funding nevertheless protects lives, property, or other State interests, such as infrastructure, agriculture, water supply reliability, Delta ecosystem, or Delta communities;

(F) A summary of The California Department of Water Resources' rationale for levee improvement project proposals submitted, but not awarded funding during the reporting year; and

(G) A summary of all previous California Department of Water Resources funded levee improvement project activities completed during the reporting year and location of those activities.

(d) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that involves discretionary State investments in Delta flood risk management, including levee operations, maintenance, and improvements. Nothing in this policy establishes or otherwise changes existing levee standards.

Note: Authority cited: Sections 85210 and 85306, Water Code. Reference: Sections 85020, 85022, 85054, 85057.5, 85300, 85305, 85306, 85307, and 85309, Water Code.

POLICY OR RECOMMENDATION NUMBER	SHORT TITLE	POLICY/RECOMMENDATION LANGUAGE
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Table 1:

Very High Priority	<p><i>Bacon Island, Bethel Island, Bishop/DLIS-14 (North Stockton), Brannan-Andrus, Byron Tract, DLIS-19 (Grizzly Slough Area), DLIS-28, DLIS-33, DLIS-63 (Grizzly Island Area), Drexler Tract, Dutch Slough, Hasting Tract, Hotchkiss Tract, Jersey Island, Jones Tract (Upper and Lower), Maintenance Area 9 North, Maintenance Area 9 South, McCormack-Williamson Tract, McDonald Island, McMullin Ranch, Middle and Upper Roberts Island, New Hope Tract, North Stockton, Paradise Junction, Reclamation District 17, Ryer Island, Sherman Island, Staten Island, Terminous Tract, Twitchell Island, Union Island West, Upper Andrus Island, Victoria Island, Webb Tract.</i></p>
High Priority	<p><i>Bouldin Island, Brack Tract, Bradford Island, Cache Haas Area, Central Stockton, Clifton Court Forebay, DLIS-01 (Pittsburg Area), DLIS-07 (Knightsen Area), DLIS-08 (Discovery Bay Area), DLIS-20 (Yolo Bypass), DLIS-22 (Rio Vista), DLIS-26 (Morrow Island), DLIS-29, DLIS-30, DLIS-31 (Garabaldi Unit), DLIS-32, DLIS-39, DLIS-41 (Joice Island Area), DLIS-44 (Hill Slough Unit), DLIS-55, DLIS-59, Egbert Tract, Fabian Tract, Glanville, Grand Island, Holland Tract, Honker Bay, Kasson District, Libby McNeil, Little Egbert Tract, Lower Roberts Island, Mandeville Island, Mossdale Island, Netherlands, Palm-Orwood, Paradise Cut, Pearson District, Pescadero District, Rindge Tract, River Junction, Shima Tract, Stewart Tract, Sunrise Club, Tyler Island, Union Island East, Veale Tract, Walnut Grove, Woodward Island, Yolano.</i></p>
Other Priority	<p><i>Atlas Tract, Bixler Tract, Canal Ranch Tract, Chipps Island, Coney Island, Dead Horse Island, DLIS-06 (Oakley Area), DLIS-10, DLIS-15, DLIS-17, DLIS-18, DLIS-25, DLIS-27, DLIS-34, DLIS-35, DLIS-36, DLIS-37 (Chadbourne Area), DLIS-40, DLIS-43 (Potrero Hills Area), DLIS-46, DLIS-47, DLIS-48, DLIS-49, DLIS-50, DLIS-51, DLIS-52, DLIS-53, DLIS-54, DLIS-56, DLIS-57, DLIS-62, Drexler Pocket, Ehrhardt Club, Empire Tract, Fay Island, Glide District, Holt Station, Honker Lake Tract, King Island, Lisbon District, Medford Island, Mein's Landing, Merritt Island, Peters Pocket, Pico-Naglee, Prospect Island, Quimby Island, Randall Island, Rio Blanco Tract, Rough And Ready Island, Shin Kee Tract, Stark Tract, Sutter Island, Venice Island, Walthall, West Sacramento, Wetherbee Lake, Winter Island, Wright-Elmwood Tract.</i></p>

RR R4	Update Delta Levees Maintenance Subvention Program's Cost-sharing Provisions	<ul style="list-style-type: none"> ▪ 75 percent State cost share. <i>The Delta Levees Maintenance Subvention Program's maximum 75 percent State cost share for maintenance and major rehabilitation projects should be extended indefinitely.</i> ▪ Update the Delta Levees Maintenance Subventions Program Deductible Provision. <i>The Legislature should amend the Water Code section 12986(a)-(b) to adjust the current \$1000 per mile deductible amount to account for inflation since the provision was enacted in 1981. The deductible amount should be reevaluated periodically to reflect current inflation and the needs of the program and its participants.</i> ▪ Simplify Consideration of Local Levee Maintaining Agencies' Ability to Pay for Levee Maintenance and Improvement. <i>The Central Valley Flood Protection Board should revise its guidelines for the Delta Levees Maintenance Subventions Program to provide a simplified approach to the consideration of a local levee agency's ability to pay for the cost of levee maintenance or improvement, as required by Water Code section 12986(a)(3), so that reclamation districts with little ability to pay receive the full 75 percent State cost share recommended above, with reduced State cost shares for reclamation districts that are able to pay more to maintain and improve their levees.</i>
RR P2 (23 CCR section 5013)	Require Flood Protection for Residential Development in Rural Areas	<p>(a) <i>New residential development of five or more parcels shall be protected through floodproofing to a level 12 inches above the 100-year base flood elevation, plus sufficient additional elevation to protect against a 55-inch rise in sea level at the Golden Gate, unless the development is located within:</i></p> <ol style="list-style-type: none"> (1) <i>Areas that city or county general plans, as of May 16, 2013, designate for development in cities or their spheres of influence;</i> (2) <i>Areas within Contra Costa County's 2006 voter-approved urban limit line, except Bethel Island;</i> (3) <i>Areas within the Mountain House General Plan Community Boundary in San Joaquin County; or</i> (4) <i>The unincorporated Delta towns of Clarksburg, Courtland, Hood, Locke, Ryde, and Walnut Grove, as shown in Appendix 7.</i> <p>(b) <i>For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that involves new residential development of five or more parcels that is not located within the areas described in subsection (a).</i></p>

EXECUTIVE SUMMARY

RR P3 (23 CCR section 5014)	Protect Floodways	<p>(a) No encroachment shall be allowed or constructed in a floodway, unless it can be demonstrated by appropriate analysis that the encroachment will not unduly impede the free flow of water in the floodway or jeopardize public safety.</p> <p>(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that would encroach in a floodway that is not either a designated floodway or regulated stream.</p>
RR P4 (23 CCR section 5015)	Floodplain Protection	<p>(a) No encroachment shall be allowed or constructed in any of the following floodplains unless it can be demonstrated by appropriate analysis that the encroachment will not have a significant adverse impact on floodplain values and functions:</p> <ol style="list-style-type: none">(1) The Yolo Bypass within the Delta;(2) The Cosumnes River-Mokelumne River Confluence, as defined by the North Delta Flood Control and Ecosystem Restoration Project (McCormack-Williamson), or as modified in the future by the California Department of Water Resources or the U.S. Army Corps of Engineers (California Department of Water Resources 2010); and(3) The Lower San Joaquin River Floodplain Bypass area, located on the Lower San Joaquin River upstream of Stockton immediately southwest of Paradise Cut on lands both upstream and downstream of the Interstate 5 crossing. This area is described in the Lower San Joaquin River Floodplain Bypass Proposal, submitted to the California Department of Water Resources by the partnership of the South Delta Water Agency, the River Islands Development Company, Reclamation District 2062, San Joaquin Resource Conservation District, American Rivers, the American Lands Conservancy, and the Natural Resources Defense Council, March 2011. This area may be modified in the future through the completion of this project. <p>(b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that would encroach in any of the floodplain areas described in subsection (a).</p> <p>(c) This policy is not intended to exempt any activities in any of the areas described in subsection (a) from applicable regulations and requirements of the Central Valley Flood Protection Board.</p>
RR R5	Finance Local Flood Management Activities	<p>The Council, DWR, CVFPB, and the DPC, in consultation with the Corps of Engineers and the Department of Finance, should cooperate to further develop levee finance mechanisms, including those studied by the DPC, that create opportunities for “beneficiary pays”-based funding approaches that supplement State-funding for levee maintenance and improvements. Because no single financial mechanism can meet the requirements of a beneficiary-pays approach to address the full range of beneficiaries and financing needs, a portfolio of mechanisms targeted to particular levee improvements should be evaluated. These mechanisms could include assessments, public funding, water use fees, water conveyance fees, and flood prevention fees.</p>

RR R6	New State Funding for Non-structural Risk Reduction	<i>A hazard mitigation program, funded by the State, should be established to make grants to local governments and flood management agencies to support emergency preparedness actions, such as evacuation planning or prepositioning of flood fight materials, and non-structural flood hazard mitigation actions, such as flood-proofing of public or private buildings or the purchase and removal of flood-prone structures.</i>
RR R7	Fund Actions to Protect Infrastructure from Flooding and Other Natural Disasters	<ul style="list-style-type: none"> ▪ <i>The California Public Utilities Commission should immediately commence formal hearings to impose a reasonable fee for flood and disaster prevention on regulated privately owned utilities with facilities located in the Delta. Publicly owned utilities should also be encouraged to develop similar fees. The California Public Utilities Commission, in consultation with the Delta Stewardship Council, the California Department of Water Resources, and the Delta Protection Commission, should allocate these funds among State and local emergency response and flood protection entities in the Delta. If a new regional flood management agency is established by law, a portion of the local share would be allocated to that agency.</i> ▪ <i>The California Public Utilities Commission should direct all regulated public utilities in their jurisdiction to immediately take steps to protect their facilities in the Delta from the consequences of a catastrophic failure of levees in the Delta, to minimize the impact on the State's economy.</i> ▪ <i>CalTrans should be given authority by the Legislature to enter into agreements with local levee maintaining agencies to fund improvement and maintenance of levees adjoining interstates and State highways when that is the least cost approach to reducing flood risks to those roads.</i> ▪ <i>State agencies with projects or infrastructure in the Delta should set aside a reasonable amount of funding to pay for flood protection and disaster prevention.</i>
RR R8	Maintain Lower Risk Uses of Flood-Prone Rural Areas	<i>Agricultural and natural resource land uses and recreational marinas, resorts, or parks are the most appropriate uses for floodprone rural lands and should be maintained, consistent with the regulatory policy Locate New Development Wisely (DP P1).</i>
RR R9	Fund and Implement San Joaquin River Flood Bypass	<i>The Legislature should fund the California Department of Water Resources and the Central Valley Flood Protection Board to evaluate and implement a bypass and floodway on the San Joaquin River near Paradise Cut that would reduce flood stage on the mainstream San Joaquin River adjacent to the urban and urbanizing communities of Stockton, Lathrop, and Manteca in accordance with Water Code section 9613(c).</i>
RR R10	Continue Delta Dredging Studies	<i>The current efforts to maintain navigable waters in the Sacramento River Deep Water Ship Channel and Stockton Deep Water Ship Channel, led by the U.S. Army Corps of Engineers and described in the Delta Dredged Sediment Long-Term Management Strategy (USACE 2007, Appendix K), should be continued in a manner that supports the Delta Plan and the coequal goals. Appropriate dredging throughout other areas in the Delta for maintenance purposes, or that would increase flood conveyance and provide potential material for levee maintenance or subsidence reversal should be implemented in a manner that supports the Delta Plan and coequal goals.</i>

		<i>Coordinated use of dredged material in levee improvement, subsidence reversal, or wetland restoration is encouraged.</i>
RR R11	Designate Additional Floodways	<i>The Central Valley Flood Protection Board should evaluate whether additional areas both within and upstream of the Delta should be designated as floodways. These efforts should consider the anticipated effects of climate change in its evaluation of these areas.</i>
RR R12	Renew Federal Assistance for Post-disaster Response	<i>The Council, Office of Emergency Services, DWR, Central Valley Flood Protection Board, and Delta Protection Commission should advocate for reforms of the Federal Emergency Management Agency’s rehabilitation assistance program, including a renewed hazard mitigation program for Delta levees, and the Army Corps of Engineer’s Rehabilitation and Inspection Program (PL 84-99) to account for the economic value of the Delta’s water supplies and transportation services and for the State’s commitments to reducing Delta flood risk and improving Delta levees.</i> <i>To facilitate this consideration, priority should be given to research to quantify the economic value of reliable water supplies and transportation services protected by the Delta’s levees, including consideration of the levees’ contributions to the protection of water quality, water supply infrastructure, and the conveyance of water for export through levee-lined channels.</i>
RR R13	Require Flood Insurance	<i>The Legislature should require an adequate level of flood insurance for residences, businesses, and industries in floodprone areas.</i>
RR R14	Improve Delta Communities’ National Flood Insurance Program Community Rating System (CDS) Program Rankings	<i>Delta communities should improve their current National Flood Insurance Program Community Rating System (CRS) ranking through the implementation of risk reduction management practices, when feasible, in order to receive additional discounts on flood insurance premium rates.</i>
RR R15	Limit State Liability	<i>The Legislature should consider statutory and/or constitutional changes that would address the State’s potential flood liability, including giving State agencies the same level of immunity with regard to flood liability as federal agencies have under federal law.</i>
RR R16	Provide Public Access on Appropriately-located Delta Levees	<i>When using state funding to improve levees in the Delta that border urban areas, unincorporated towns, publicly-owned nature areas, or other public lands or that intersect with state highways, the levee designs and associated land purchases should consider public access, including but not limited to bank fishing, nature observation, or pedestrian and bicycling trails. When agencies make decisions about funding levee improvements they should identify the types of public access or recreation that may be feasible at the levee and explain how they have considered those opportunities in their decision.</i>

Chapter 8

FP R1	Conduct Current Spending Inventory	<i>An inventory of current State and federal spending on programs and projects that do or may achieve the coequal goals will be conducted. Data sources to be used include the CALFED cross-cut budget, State bond balance reports, and the annual State budget, among others. Consideration will be given to selecting an independent agency (which could include a non-governmental organization) to conduct the inventory.</i>
FP R2	Develop Delta Plan Cost Assessment	<i>Costs will be assigned to the projects and programs proposed in the Delta Plan (Chapters 2 through 7) and sources of funding will be identified.</i>
FP R3	Identify Funding Gaps	<i>Current State and federal funding gaps will be identified that are determined to hinder progress toward meeting the coequal goals.</i>