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Achieving State Goals for the Delta

LEGISLATIVE ANALYST'S OFFICE

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On Resources, Environmental Protection, Energy and Transportation
Hon. Lois Wolk, Chair

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The Sacramento-San Joaquin Delta

☑ ***Importance of the Delta.*** The Sacramento-San Joaquin Delta (the Delta) is an integral part of the two major water delivery systems in the state—the State Water Project (SWP) and Central Valley Project (CVP). It is also a biologically diverse ecosystem, home to significant agricultural and urban areas, and an important infrastructure corridor. It comprises a network of about 70 islands created through the construction of over 1,100 miles of levees in what was historically tidal marshland.

☑ ***Problems in the Delta.*** The Delta faces several significant problems, including (1) declining health of the Delta's ecosystem, (2) restrictions on water supply, (3) worsening water quality, and (4) the failure of Delta levees. Left unaddressed, these problems could persist or worsen over the next 30 to 50 years. According to existing research, the annual costs associated with these problems could potentially range from the hundreds of millions of dollars to the low billions of dollars.

☑ ***Coequal Goals for the Delta.*** In 2009, the Legislature passed the Delta Reform Act, which states its intent to achieve the "coequal goals" of improving the reliability of the state's water system and enhancing the Delta ecosystem, while preserving the Delta as an evolving place.

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Current Efforts to Resolve Delta Problems

☑ ***Delta Plan.*** The Delta Reform Act created the Delta Stewardship Council (DSC) to direct efforts across state agencies and to resolve the lack of accountability and authority that hindered previous efforts in the Delta. The act requires DSC to develop a Delta Plan to set the overall direction for state policy in the Delta for the next 50 years.

☑ ***Bay Delta Conservation Plan (BDCP).*** The BDCP is the administration's proposal, led by the California Natural Resources Agency and the Department of Water Resources (DWR) to address some of the Delta's water supply reliability and environmental problems. The main features of BDCP are (1) construction of two tunnels that would allow water to be diverted from a different part of the Delta and (2) restoration of about 150,000 acres of habitat in the Delta. The total cost of BDCP over 50 years is estimated to be $24.7 billion. As of March 2015, the administration was revising the BDCP in response to public comments and expects to release a revised version later this year.

☑ ***Other Efforts in the Delta.*** Many other local, state, and federal agencies have responsibilities for setting policies and implementing programs in the Delta, as shown on the next page.

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Current Efforts to Resolve Delta Problems *(Continued)*

Agencies With Significant Roles in the Delta

	Agency	Water Supply	Water Quality	Ecosystem Restoration	Levees/ Emergency Response	Planning and Science	Economy and Recreation
State	Department of Water Resources	●	●	●	●	●	
	Natural Resources Agency	●				●	
	Department of Fish and Wildlife		●	●		●	
	State Water Resources Control Board		●			●	
	Delta Stewardship Council					●	
	Delta Protection Commission					●	●
	Delta Conservancy			●		●	●
	Central Valley Flood Protection Board				●	●	
	San Francisco Bay Conservation and Development Commission		●	●		●	●
	California Environmental Protection Agency		●	●		●	
	California Emergency Management Agency				●		
Federal	United States Fish and Wildlife Service			●		●	
	National Marine Fisheries Service			●		●	
	United States Army Corps of Engineers	●	●	●	●	●	●
	United States Geological Survey			●		●	
	Bureau of Land Management		●	●			●
	United States Environmental Protection Agency		●	●		●	
	United States Bureau of Reclamation	●	●				
	Federal Emergency Management Agency				●		
Local	Counties (5)	●	●	●	●	●	●
	Cities (16)	●	●		●	●	●
	Reclamation/Levee Districts (107)	●			●		
	Water/Irrigation Districts (20)	●	●		●		

Adapted from the California Water Plan Update 2009, Volume 3: Sacramento-San Joaquin River Delta.

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Issues for Legislative Consideration

- ☑ **Managing and Prioritizing Demands for Delta Water**
- ☑ **Funding Sources for Some Key Delta Activities Are Uncertain**
- ☑ **Current Delta Governance Limits Effectiveness**
- ☑ **Slow Implementation of Some Key Activities**
- ☑ **Challenges to Restoring the Delta Ecosystem**

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Managing and Prioritizing Demands for Delta Water

The Delta is affected by statewide water use and policies that determine how water is managed in the state.

☑ ***Upstream Diversions Affect Delta.*** Many users divert water that would otherwise flow through the Delta and benefit fish species. In an average year about half of the water that would naturally flow out of the Delta to the San Francisco Bay is diverted for use elsewhere. About 60 percent of that water is taken out from upstream of the Delta, such as for use in the Sacramento Valley and the Bay Area. The remainder is exported by SWP and CVP or used within the Delta.

☑ ***Groundwater Management Can Affect Demand for Delta Water.*** In 2014, the Legislature passed and the Governor signed major legislation that requires improved groundwater management in many parts of the state. However, improving groundwater management might require additional surface water supplies—potentially from the Delta—to replenish overdrafted basins. The DWR is required to publish a report on water available for replenishment in 2016. The Legislature may wish to provide direction to DWR on how much Delta water should be relied on for replenishing groundwater.

☑ ***"Reduced Reliance" Not Clearly Defined.*** The Delta Reform Act established the goal of reducing the state's reliance on the Delta for water. However, that goal can have multiple interpretations, such as either (1) an absolute reduction in Delta exports or (2) an increase in the use of other water sources so that Delta exports make up a smaller share of statewide water use. Achieving either one of these interpretations would have different effects on the environment and water users.

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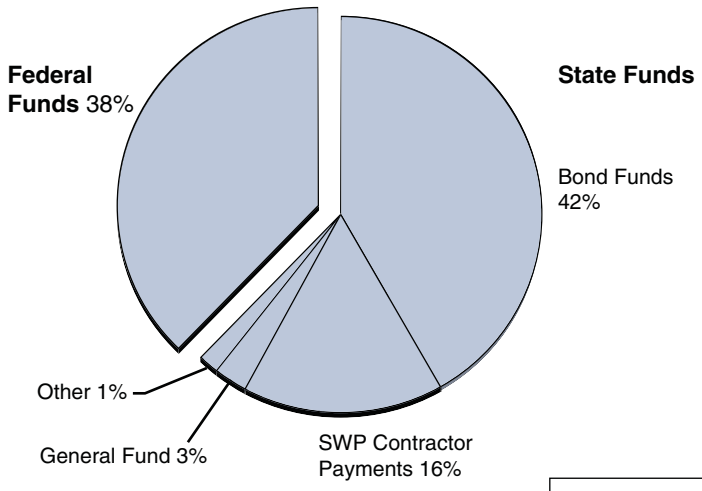
Funding Sources for Some Key Delta Activities Are Uncertain

State Funds Make Up Most of Delta Funding

2006-07 to 2013-14



SWP = State Water Project.

Sources of Funding for Some BDCP Costs Are Uncertain

- According to BDCP, the water contractors that receive water from the tunnels would pay for all of their construction and maintenance costs through increased water charges. However, there is uncertainty about the number of contractors that are willing or able to pay those costs.
- In addition, BDCP assumes that $1.5 billion in state funding will be made available for ecosystem restoration by the passage of a water bond in 2014. However, the recently approved water bond measure, Proposition 1, includes only $140 million that could be used for Delta ecosystem restoration—less than 10 percent of the anticipated amount.

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Funding Sources for Some Key Delta Activities Are Uncertain *(Continued)*

☑ **Delta Plan Implementation Costs Unknown but Potentially Significant**

- A variety of activities may potentially be required in order to implement some aspects of the Delta Plan, such as upgrading levees, restoring additional habitat, or strengthening infrastructure to support the Delta as an evolving place. The costs of these activities have not been estimated.
- We note that CALFED identified about $8 billion in similar Delta projects. From 2006-07 to 2013-14, state and federal governments spent a total of $3.4 billion on the Delta.

☑ **Identifying Who Should Pay for Work in Delta**

- State funding for Delta activities is limited. Thus, it will be important for the Legislature to consider what Delta–related activities are most appropriate to be funded by the state—such as with bonds—or with other funding sources, including charges on beneficiaries or polluters.

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Current Delta Governance Limits Effectiveness

The governance structure set up by the Delta Reform Act has resulted in some concerns about the effectiveness of efforts to address the problems in the Delta.

☑ ***DSC Enforcement Ability Is Unclear.*** The Delta Reform Act gave DSC the authority to decide whether certain actions proposed by state or local agencies—such as authorizing new development—are consistent with the Delta Plan and to offer recommendations if they are not. However, state and local agencies are not required to adopt the council's recommendations. It is unclear how the Delta Plan would be enforced if agencies decide not to follow the DSC's recommendations.

☑ ***Exemptions to Delta Plan Could Limit Ability to Meet Goals.*** The Delta Reform Act exempts certain activities from complying with the Delta Plan, such as certain local transportation plans that are developed to reduce greenhouse gas emissions and all regulatory actions by state agencies. If these activities have significant effects on the Delta, they could affect the ability to achieve the state's goals in the Delta.

☑ ***Limited Integration of Regulatory and Planning Activities.*** Several reviews of Delta governance have found that decision-making continues to be fragmented, leading to a lack of integration among the various planning and regulatory activities in the Delta. A lack of integration is likely to result in conflicting plans and regulatory actions, slowing progress on the state's objectives. For example, some ecosystem restoration projects have been slowed by requirements for numerous, and sometimes duplicative, permits and environmental reviews at the state, local, and federal levels.

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Slow Implementation of Some Key Activities

The state has been slow to implement some actions that would help protect the Delta, including tracking of outcomes and a strategy for reducing flood risk. As a result, the state's goals for protecting the Delta may not be achieved as the Legislature intended.

☑ ***Slow to Track Performance Measures.*** The DSC has not yet begun tracking any outcomes related to the Delta. Without measures of outcomes, it will be difficult for the Legislature to hold DSC accountable for the state's progress in this area and for DSC to learn from past activities in order to identify effective programs.

☑ ***No Strategy for Reducing Flood Risk.*** The Delta Reform Act directs DSC to develop a strategy for prioritizing state spending on levee repairs and upgrades. However, to date, DSC has only developed interim goals and priorities and an issue paper with guiding questions for developing a levee investment strategy. Prioritization of which aspects of the Delta should be protected and a strategy that ensures those priorities are protected would help to ensure that flood risk is reduced in a cost-effective manner.

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Challenges to Restoring the Delta Ecosystem

- ***Difficult to Identify the Most Cost-Effective Ways to Restore the Ecosystem.*** The factors causing the decline of the Delta ecosystem interact in complex ways. For example, a change to the amount of water flowing through the Delta can increase or decrease the effects that other factors (such as water temperature and water quality) have on species in the Delta. Thus, it is difficult to identify the most cost-effective ways to improve the Delta and help fish populations recover. As a result, improving ecosystem conditions will likely require addressing most factors to some degree.

- ***Ensuring Effective Adaptive Management.*** Adaptive management—periodically adjusting restoration policies and activities based on ongoing monitoring and evaluation—will be necessary to ensure that restoration is effective and efficient. Both the Delta Plan and BDCP are intended to include science programs that would form the basis for adaptive management. The specific details of how these programs will be coordinated and funded will significantly affect the ability of the state to manage and respond to problems in the Delta.

- ***Completing Ecosystem Projects Can Be Challenging.*** Many ecosystem restoration projects in the Delta have not been completed in the expected time frame. In general, reasons for delay cited by departments and others include difficulty in getting federal permits, funding constraints on local agencies that make it difficult for them to provide matching funds, and changes in how the state finances bond-funded projects. In addition, failing to respond to the concerns of Delta stakeholders can stall progress toward ecosystem projects.