



Understanding Costs, Benefits, Funding and Financing for the Delta Conveyance Project

The Department of Water Resources' (DWR) Delta Conveyance Project will soon reach an important milestone with the release of an updated cost estimate and a benefit-cost analysis. The following FAQ covers common questions on how the project will be funded and how costs and benefits will be assessed.

How is the State Water Project funded?

Financing, construction, operation, and maintenance of the State Water Project (SWP) is administered by DWR. The SWP is funded by the 29 local public water agencies (PWAs) throughout California with long-term SWP water supply contracts. These water supply contracts were created in the 1960s and are central to financing SWP construction and operation.

How is the planning and conceptual design of the Delta Conveyance Project funded?

Eighteen of the PWAs are funding the planning and design of the Delta Conveyance Project through local sources. The planning and design of the project is not funded by California's general fund.

How would construction of the Delta Conveyance Project be funded?

DWR funds SWP capital projects by issuing revenue bonds. Revenue bonds are not liabilities of the State of California. These bonds are the sole obligation of the SWP and are repayable from SWP revenue. For the Delta Conveyance Project, that revenue will be provided only by the participating PWAs. The state's general fund is not responsible for any construction costs.

What is a revenue bond?

Revenue bonds are a common way for public agencies to raise capital for infrastructure projects (also known as "financing" a project). Investors purchase the revenue bonds, thereby providing money to the issuer of the bonds. In return, the issuer of the bonds promises to repay the bondholders' principle plus a specified rate of interest over the life of the bonds using revenue from the project that was financed by the bonds.

What is a benefit-cost analysis and why is it important?

A benefit-cost analysis is a systematic method to assess the economic viability of certain types of projects, such as the Delta Conveyance Project. This analysis estimates the ratio of a project's expected future benefits and costs, based on a variety of direct and indirect economic and environmental considerations. In conducting a benefit-cost analysis, the project's benefits and costs are compared to a scenario where the project is not undertaken, known as the no-project scenario. This comparison demonstrates the added value of the project relative to maintaining the status quo. A benefit-cost analysis is an important step in ensuring that the benefits of a project justify its costs.

What benefits will be identified in the benefit-cost analysis for the Delta Conveyance Project?

The benefit-cost analysis for the Delta Conveyance Project will evaluate several key benefits: improved water supply reliability (including climate change), enhanced water quality, and increased seismic reliability for the SWP's urban and agricultural contractors.

Some benefits of the Delta Conveyance Project will not be quantified in the benefit-cost analysis and yet are also compelling for decisions-makers, including:

- Increased operational flexibility: resolving regulatory conflicts in the south Delta to meet environmental requirements for the equal benefit for fish/water supply goals
- Community Benefits Program: investments in Delta communities for high-priority local projects, local business utilization, job training, and infrastructure improvements
- Job creation: the project will create over 5,000 total jobs, including supporting industries
- Groundwater supplies: protecting affordable surface water supplies relieves pressure on dwindling or constrained groundwater sources



How will costs be identified in a benefit-cost analysis for the Delta Conveyance Project?

A preliminary cost assessment was prepared in 2020, showing the project cost to be nearly \$16 billion. An updated cost estimate for the Delta Conveyance Project will provide the basis for the cost portion of the benefit-cost analysis in 2023 dollars and will include the anticipated costs of design, construction, and startup/commissioning of the facility. Additionally, the benefit-cost analysis will include the costs for long-term operations of the facility and for unmitigated environmental impacts identified in the Environmental Impact Report for the Delta Conveyance Project.

How is uncertainty accounted for in the early stages of design and cost estimating?

In the early stages of design, there are fewer absolutes, while later stages of design have more detail and fewer unknowns. To account for this, the Association for the Advancement of Cost Engineering (AACE) created guidelines using industry benchmarking and empirical data that provide ranges of expected accuracy based on the level of project definition, estimating methodology and effort. In addition, estimates typically include "contingency" funds for unknown or undefined aspects of a project, which tends to be larger during earlier phases of project development.

What makes a cost estimate reliable?

For the Delta Conveyance Project, the updated cost estimate will be prepared following AACE guidelines and will include construction costs (including materials and labor for all project features, and site access and logistics) and non-construction costs (like design, planning and permitting, land costs, mitigation, and power). The updated cost estimate for the Delta Conveyance Project will also include appropriate contingency to account for greater unknowns at this current conceptual stage. However, given the complexity and scale of the project, the estimate will be more rigorous than typical for concept-level designs, including:

- Using engineering documentation in drawings and technical reports
- Developing costs based on unit rates, quantities, and durations
- Replacing most cost "allowances" with actual estimates and material price quotes
- Better understanding of ground conditions, schedule, and risks

Will the cost estimate account for inflation?

The cost estimate will be presented in 2023 dollars. Estimating costs relative to a specific base year is a standard approach in cost estimation and ensures consistency and comparability, as it measures all costs against the same monetary standard, removing distortions from fluctuating inflation rates. This approach simplifies cost estimation and financial planning by eliminating the complexity of forecasting uncertain future inflation.

Delta Conveyance Project Funding and Financing

Funding, Planning, Permitting and Design

PWA funds come from local sources, not the state general fund

Public Water Agencies (PWAs) pay the Department of Water Resources (DWR) their share based on SWP contracts

DWR uses funds for:

Planning, permitting and design

Financing Construction with Revenue Bonds

Total includes previous expenditures for planning, permitting and design

Investors purchase bonds

DWR uses funds to:

Reimburse PWAs for previously spent planning, permitting and design

Build the project

Revenue Bond Repayment

Repayment begins upon issuance. Financing terms TBD (e.g. 30 year fixed plus interest)

Rate payers pay PWAs

PWAs pay DWR

DWR pays bondholders

