BDCP
BAY DELTA CONSERVATION PLAN

May 2013

Estimated Cost to Implement the BDCP

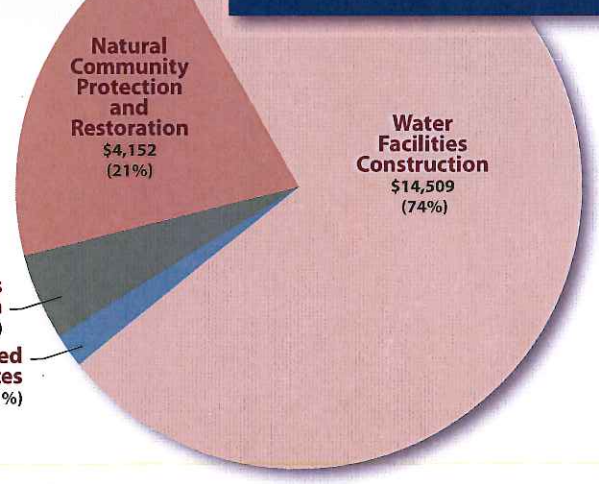
The Sacramento-San Joaquin Delta (Delta), located east of San Francisco Bay, is a vitally important ecosystem and provides water for more than 25 million Californians. The Bay Delta Conservation Plan (BDCP) is a 50-year ecosystem plan designed to restore fish and wildlife species in the Delta in a way that also protects California's water supplies while minimizing impacts to Delta communities and farms.

Cost Summary

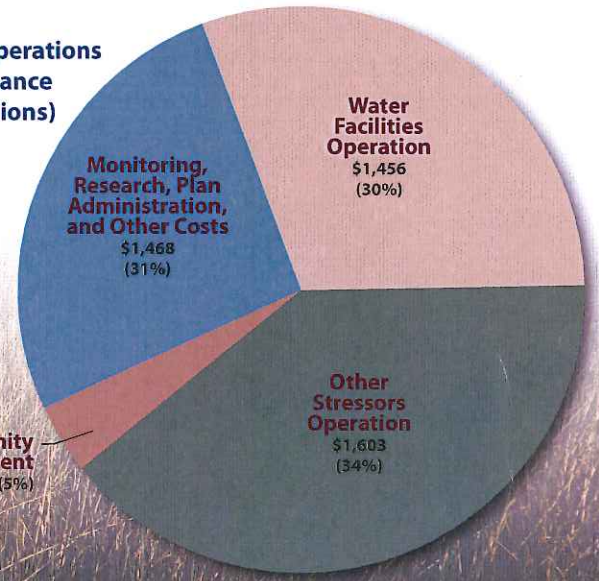
Cost estimates for implementing the BDCP are outlined in Chapter 8, Implementation Costs and Funding Sources. The total estimated cost of implementing the BDCP over the 50-year permit term is $24.54 billion (in undiscounted 2012 dollars). Capital costs over the 50-year permit term total $19.7 billion. The majority of these costs (74 percent of capital costs) are associated with construction of water intake and conveyance facilities and will be incurred by year 10 of Plan implementation. Average annual operations and maintenance (O&M) costs are estimated to be $107 million per year near the end of the 50-year permit term ($4.8 billion over 50 years). Approximately 70 percent of O&M costs are associated with Plan administration, monitoring and research, and implementation of conservation measures other than water conveyance.

The costs analyzed in Chapter 8 represent planning estimates that are intended to provide the basis for a demonstration that the BDCP meets the standard of assured funding. The chapter is not intended to suggest a project "budget." The proposed BDCP Implementation Office would be responsible for developing annual budgets and work plans.

Estimated Capital Costs (in Millions)



Estimated Operations and Maintenance Costs (in Millions)



Note that these costs are reported in 2012 dollars after adjusting for inflation. Present value costs are also presented in Chapter 8.

Totals in the pie charts have been rounded.

Estimated Costs for Conservation Measures

Estimated Capital and O&M Costs by Plan Element (in Millions)*

The totals in the following tables may not sum directly from their components due to rounding.

	Capital	O&M	Total
Water Facilities and Operation (65%)			
CM1 Water Facilities and Operation	$14,509.70	$1,456.00	$15,965.70
Natural Community Protection and Restoration (18 %)			
CM2 Yolo Bypass Fisheries Enhancement	$719.00	-	$719.00
CM3 Natural Communities Protection and Restoration	$422.20	-	$422.20
CM4 Tidal Natural Communities Restoration	$1,867.80	-	$1,867.80
CM5 Seasonally Inundated Floodplain Restoration	$713.50	-	$713.50
CM6 Channel Margin Enhancement	$135.00	-	$135.00
CM7 Riparian Natural Community Restoration	$50.90	-	$50.90
CM8 Grassland Natural Community Restoration	$14.70	-	$14.70
CM9 Vernal Pool and Alkali Seasonal Wetland Complex Restoration	$1.70	-	$1.70
CM10 Nontidal Marsh Restoration	$44.40	-	$44.40
CM11 Natural Communities Enhancement and Management	$180.90	$210.30	$391.20
CM12 Methylmercury Management	$1.70	-	$1.70
CM22 Avoidance and Minimization Measures	-	$36.30	$36.30
Other Stressors Conservation (12%)			
CM13 Invasive Aquatic Vegetation Control	$0.00	$270.30	$270.30
CM14 Stockton Deep Water Ship Channel Dissolved Oxygen Levels	$14.10	$9.50	$23.60
CM15 Localized Reduction of Predatory Fishes	$1.20	$49.00	$50.20
CM16 Nonphysical Fish Barriers	$763.00	$508.70	$1,271.70
CM17 Illegal Harvest Reduction	$17.80	$245.20	$263.00
CM18 Conservation Hatcheries	$32.90	$342.20	$375.00
CM19 Urban Stormwater Treatment	$50.00	-	$50.00
CM20 Recreational Users Invasive Species Program	$5.10	$171.50	$176.60
CM21 Nonproject Diversions	$47.20	$6.70	$53.90
Monitoring, Research, Plan Administration, and Other Costs (6%)			
Monitoring and Research Measures	-	$912.80	$912.80
Plan Administration	-	$336.90	$336.90
Property Tax Revenue Replacement	-	$218.50	$218.50
Changed Circumstances	$178.20	-	$178.20
TOTAL	19,770.00	$4,774.00	$24,544.00

** Does not include estimated costs of $141.7 Million for EIR/EIS mitigationand responsibilities by conservation measure.*

The capital and O&M costs for each conservation measure are shown. The cost of CM1 is approximately 65 percent of the total cost (capital and O&M) of implementation. The remaining conservation measures account for approximately 30 percent of the total cost. Other costs associated with plan implementation, monitoring, research, and contingencies make up the remaining 6 percent.

Different approaches were used to estimate the costs of different conservation measures. The table to the left is a summary of overall costs. The totals in these tables may not sum directly from their components due to rounding. Details related to these estimates are provided in Chapter 8.

Counties, cities, and other local governments depend in part on property taxes paid by private property owners. Typically, when land is acquired by a public agency, those payments stop. To ensure that these important revenues remain, BDCP will pay the replacement cost of those property taxes to local governments.

EIR/EIS Mitigation Costs

Mitigation measures necessary to avoid, reduce, minimize, or compensate for adverse environmental effects of Plan implementation are documented in the Environmental Impact Report/Environmental Impact Statement (EIR/EIS). These actions are estimated to cost $141.7 million. These mitigation measures are consistent with California Environmental Quality Act and National Environmental Policy Act (not the Endangered Species Act or Natural Community Conservation Planning Act). These costs are included in Chapter 8 to provide a more complete accounting of all Plan costs.

CM1 Water Facilities and Operation Costs

Cost estimates for CM1 are presented for the design, project management, and construction management of the water intake and conveyance facilities; the intake and conveyance construction costs; the construction cost contingency; land acquisition; annual operation, maintenance, power, and capital replacement.

Cost Analysis Assumptions

Several common assumptions were made in developing the cost analysis, which are described in detail in the chapter. These assumptions involve:

- Cost periods
- Cost contingency
- Financial assumptions
- Delta real estate values and acquisition costs
- Transaction costs related to acquisition of interests in land
- Staff salary costs and benefits multiplier

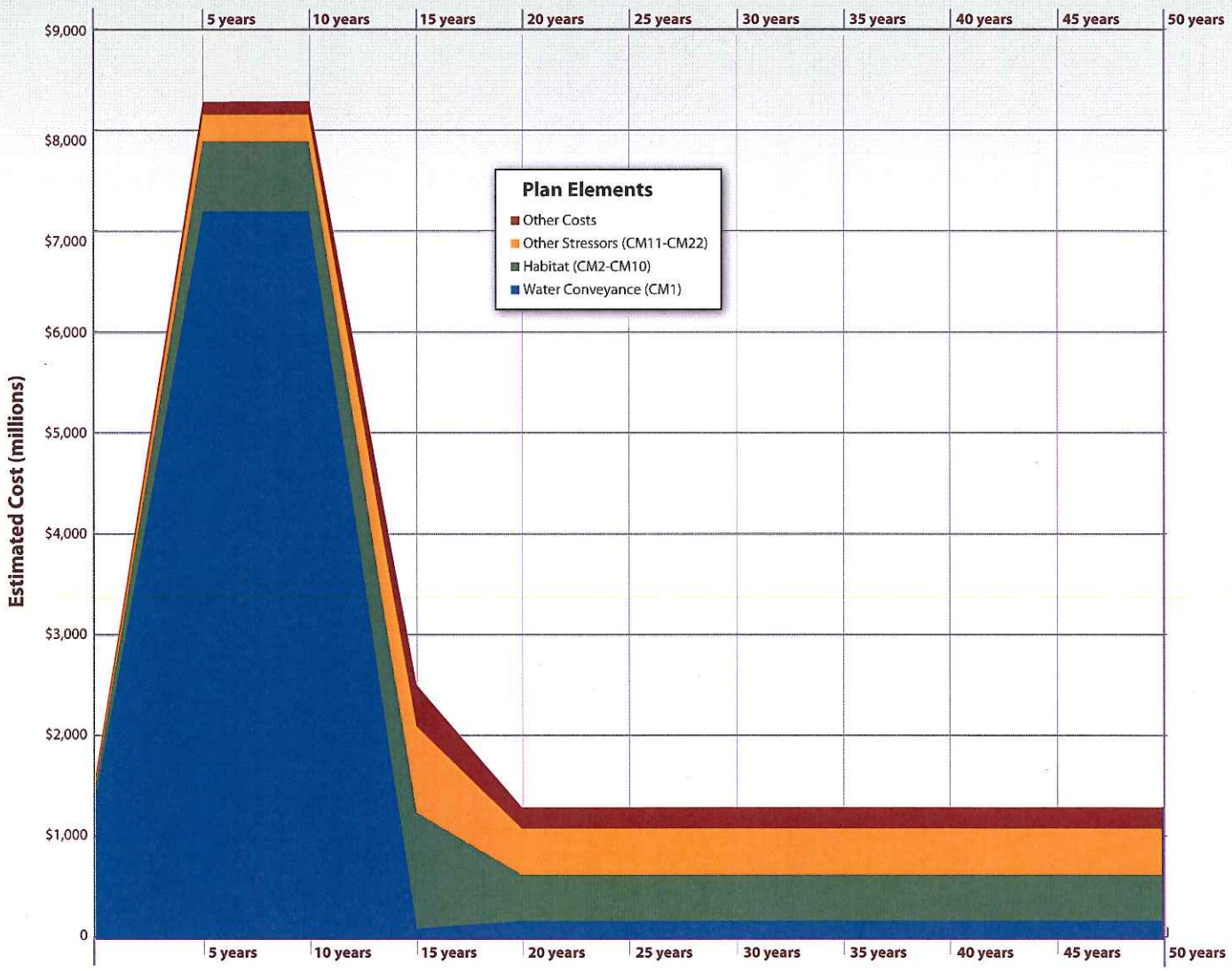
Cost Estimate for Water Facility Construction

	Total Expenditure (in Millions)
Capital Costs	
Land Acquisition	
Fee-title costs	$93.2
Due diligence and transaction costs	$9.3
Mineral rights and gas well relocation	$43.0
Subtotal Land Acquisition	**$145.5**
Contingency	$20.5
Total Land Acquisition	**$166.1**
Construction	
River intake #2 with pumping plant	$365.6
River intake #3 with pumping plant	$331.5
River intake #5 with pumping plant	$312.2
Intermediate Forebay and flow control structures	$179.6
Byron Tract Forebay and flow control structures	$199.8
North tunnels and shafts	$365.4
Main tunnels and shafts	$7,035.4
Access, power delivery, and utility relocations	$316.5
Communications	$23.4
Subtotal - Direct Construction	$9,129.3
Tunneling contingency	$2,701.4
All other contingency	$593.1
Construction w/Contingency	$12,423.7
Project management, construction management, and final design	$1,919.9
Total Construction	**$14,343.6**
Total Capital	**$14,509.7**
Operations & Maintenance (O&M) Costs	
Power	$250.0
Facility O&M	$754.0
Capital replacement	$452.0
Total O&M	**$1,456.0**

Costs of Implementing BDCP over the 50-year Term

Due to the capital costs associated with the construction of new water intake and conveyance facilities, implementation costs are estimated to peak during the first 10 years and then level out over the remaining 40-year period.

Implementation Expenditure of the 50-Year Permit Term



Details regarding the assumptions and methods for estimating the costs for each conservation measure can be found in Chapter 8.