

OFFICE OF PUBLIC ACCOUNTABILITY

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To: The Honorable Felipe Fuentes, Councilmember
Chairperson, Energy and Environment Committee

From: Frederick H. Pickel, Ph.D., Executive Director/Ratepayer Advocate
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Subject: Bay Delta Conservation Plan and California State Water Bond Costs to City of
Los Angeles Ratepayers

SUMMARY

The analysis in this report indicates that under a wide array of cost and water demand scenarios, the total Bay Delta Conservation Plan (BDCP) is affordable to almost all City households. This cost analysis also found that selective Department of Water and Power (DWP) and City water policies can minimize the total costs to Los Angeles households and businesses of the BDCP and an interrelated proposed State Water Bond.

BACKGROUND

This report responds to a February 19, 2014 request of the Energy and Environment Committee in Council File 14-0121. This brief report by the City of Los Angeles Office of Public Accountability/Ratepayer Advocate (OPA) describes the draft Bay Delta Conservation Plan (BDCP) and one proposed California Water Bond (Bond) of 2014 (Senate Bill 927). It emphasizes the estimated costs to the households and businesses of the City of Los Angeles. The BDCP is scheduled for public comment through June 13, 2014 and finalization with an adopted Environmental Impact Report and Record of Decision is scheduled for late 2014. Also, by this June, the Governor may decide if he will include the proposed Bond (or an alternative) on the November 2014 ballot.

The BDCP and proposed Bond are interrelated but independent actions, which together define a strategy for funding state water supply facilities supporting a major part of the Los Angeles water portfolio. The actions also will define state-wide water ecosystem and storage improvements. They will improve the reliability of through-Delta water deliveries to the State

Water Project (SWP) and Central Valley Project (CVP) water contractors, including the Metropolitan Water District of Southern California (MWD).

The draft BDCP, as prepared by state and federal agencies leading the eight-year plan, identifies a 50 year water supply strategy with total estimated costs of \$25 billion in 2012 dollars, excluding bonding. The BDCP has a “co-equal” goal of enhancing the Delta ecosystem and providing a more reliable statewide water supply. These are needed because of consensus that the current ecosystem management and water exports are unreliable and unsustainable. The Delta ecosystem improvements will be publicly funded at \$8 billion, and the “Proposed Action” Delta conveyance system will cost state and federal contractors a projected \$17 billion in facilities, operations and associated mitigation.

The BDCP conveyance system will include water intakes north of the Delta and a 35 mile tunnel system to the south, as part of the “big gulp, little sip” flexible intake strategy. The BDCP will have a significant impact on the reliability of the Los Angeles Department of Water & Power (DWP) water supply portfolio: in DWP’s 2010 Urban Water Management Plan (UWMP), 24% of the water supply in the coming decades is projected to come from the Delta, down from the recent average of 52% and the current drought-induced level of more than 80%. DWP’s objective in maintaining a diversified water portfolio is to insure that the City’s water service remains reliable, even when one supply is not. This strategy relies in part on redundancy so that when one supply is in deficit, the others can compensate.

The Department of Water Resources operates the SWP. It appears to already have authorization to construct the BDCP conveyance improvements in the Delta. The California Legislature passed the Delta Reform Act of 2009, which established numerous conditions for the BDCP process. While no public vote is required for BDCP implementation, it is subject to regulatory proceedings and the resolution of anticipated lawsuits from stakeholders.

The proposed \$11.1 billion Water Bond (SB 927: Safe, Clean and Reliable Drinking Water Supply Act of 2014) funds statewide water ecosystem improvements and supply projects, including \$2.3 billion for BDCP-defined Delta ecosystem improvements. The Bond would not fund any conveyance facilities. The Bond was first certified by the State Legislature in 2009, but a statewide vote has been twice delayed. There are more than five alternatives to the original Bond currently being considered.

FINDINGS

As shown in Table 1, the total BDCP will cost City households an estimated \$1.00 to \$6.08 per month, with \$2.13 per month most likely. However, only half of this cost will be for Delta water reliability facilities that are billed directly by the DWP to Los Angeles households. Most of the BDCP costs are for the “coequal” goal of Delta ecosystem improvements that presumably will be funded from federal grants and statewide taxes.

**Table 1
 Potential Household Costs of BDCP**

Program Description	Household Cost (\$ per month)		
	Best	Expected	Worst
<i>DWP Conveyance Estimate</i>		<i>\$2.04</i>	
OPA Conveyance	\$0.47	\$0.98	\$3.41
Ecosystem Improvements	\$0.53	\$1.14	\$2.67
BDCP Cost (a)	\$1.00	\$2.13	\$6.08

a. The BDCP cost is per typical Los Angeles Household using 12 Hcf per month.

BDCP: Bay Delta Conservation Plan; OPA: LA Office of Public Accountability. DWP: LA Department of Water and Power.

The technical calculations summarized in this paper incorporate the Delta portion of the DWP water portfolio received from MWD via the SWP water facilities. These conveyance costs are assumed to “follow the water.” The range of estimated costs is based on a range of different calculation assumptions. As shown in the Table 1, the DWP estimate of \$2.04 per household-month is solely for the BDCP conveyance costs, while this paper estimates the ratepayer costs of conveyance plus the statewide taxes for the costs of Delta ecosystem improvements. In contrast to the DWP estimate, this paper identified an expected rate of \$0.98 per month, based on a unit water rate of \$0.08 to \$0.51 per Hundred Cubic Feet of use by residents and businesses alike. The different assumptions supporting the two values include:

- Both the DWP and the BDCP draft report use the Southern California Water Committee’s February 2012 report by PFM Group that estimates bonding costs based on a conservative 6.1% true interest cost (TIC) in the period 2020-2028 and two years of capitalized interest in each of four projected revenue bonds (for improved cashflows to agricultural contractors). This paper uses a 4.5% TIC based on current financial conditions, and no capitalized interest, resulting in 40% lower debt service; and
- This paper uses water portfolio and demand of 2035 from the DWP 2010 UWMP, which is 17% greater than the current level of demand used in the DWP analysis.

The range of differing assumptions used in the Best, Expected and Worst case BDCP and Bond cost estimates also include:

- Facility costs from negative 20% to positive 30% of the baseline project cost estimate, which already is escalated by 36% for design and construction uncertainties;
- A State Water Bond size from \$7.5 to \$11.1 billion, net of any Bond-funded DWP water supply projects with a local benefit from \$0 to \$500 million; and
- From \$0 to \$3.3 billion in federal grants for the BDCP ecosystem projects.

Summarized in Table 2 is the cost impact of a \$9.5 billion Water Bond for statewide water ecosystem and storage improvements. Based on the different assumptions for Bond size and local benefit, the Bond will have a tax impact on City households of between \$0.29 and \$3.27 per month, net of its funding for local City of Los Angeles groundwater basin remediation or other projects. Since the Proposed Action conveyance facility results in DWP charges estimated at under \$1 per month, the tax-based funding of the BDCP ecosystem improvements and the proposed State Water Bond actually have a greater impact on the City’s households.

This paper does not attempt to place a local value on the substantial benefits of the Delta and state ecosystem improvements. Also not evaluated in this paper is the cost effectiveness of the BDCP \$15 billion “Proposed Action” conveyance facility compared to several less costly options, such as Alternative F at only \$5 billion. It is likely that political considerations, including the historic concerns that surface canals are disruptive to Delta communities and other stakeholders, led to the more costly Proposed Action tunnels. Also not evaluated is the concept that the BDCP costs should not

Table 2
Potential Household Cost of a State Water Bond

Program Description	Household Cost (\$ per month, a)		
	Best	Expected	Worst
Water Bond Cost	\$1.55	\$2.07	\$3.27
Less DWP Benefit	(\$1.27)	(\$0.51)	\$0.00
Net Bond Cost (a)	\$0.29	\$1.56	\$3.27

a. The Bond cost is per average household statewide. The DWP benefit is based on state bond funding of local Los Angeles water projects.

DWP: LA Department of Water and Power.

Table 3
Combined Delta BDCP & State Water Bond Potential Costs to a Los Angeles Household

		Delta BDCP Cost		
		Best	Expected	Worst
Water Bond Cost (Net of DWP Benefit)	Best	\$1	\$2	\$6
	Expected	\$3	\$4	\$8
	Worst	\$4	\$5	\$9

The monthly cost is per typical Los Angeles Household using 12 Hcf per month-household.

The most expected combined cost is based on a weighted average of all alternatives.

BDCP: Bay Delta Conservation Plan. DWP: LA Department of Water and Power.

“follow the water” but instead be allocated based on benefit of increased supply reliability, which is presumed by the agricultural community to be greater for the urban customers than the farmers.

As shown in Table 3 on the prior page, the total combined costs of the BDCP and the proposed Bond to Los Angeles households range from \$1 to \$9 monthly, with the most likely amount estimated at \$4. As previously described, the projected costs collected on DWP water bills to Los Angeles households is under \$1 per month, based on a unit water rate for all household and businesses of \$0.18 per Hundred Cubic Feet of water use. The remaining costs of BDCP ecosystem improvements and the proposed Bond will be collected by the state through income, property and other taxes.

CONCLUSION

The BDCP water conveyance facilities have been shown to be economically beneficial for the State by several studies. The analysis in this paper indicates that under a wide array of cost and water demand scenarios, the total BDCP is affordable to almost all City households.

This cost analysis also found that selective DWP and City water policies can minimize the total costs of the interrelated BDCP and proposed Water Bond programs to Los Angeles households and businesses. Such policies could include:

- Maximizing cost-effective local water supplies to reduce City reliance on imported water supplies;
- Maximizing funding of local water programs (such as the cleanup of the San Fernando Valley groundwater contamination) from the proposed State Water Bond;
- Maximizing SWP and CVP water contractor participation in the BDCP conveyance facility costs;
- Minimizing the size of the proposed Water Bond programs not directly benefiting the City, such as for additional water storage that does not support SWP operations;
- Using the lowest-cost BDCP conveyance project alternative that can fulfill water ecosystem and conveyance essential requirements; and
- Maximizing Federal grants supporting the coequal BDCP ecosystem improvements.

KEY REFERENCES

This paper was prepared using a variety of supporting reports and documents, including:

“Bay Delta Conservation Plan Public Draft Report.” California Department of Water Resources. November 2013

Los Angeles Department of Water and Power. Letter to Felipe Fuentes, Councilmember, 7th District, City of Los Angeles. “Subject: Council File No. 14-0121 – Governor’s Proposed Budget/Energy and Environment Issues/Impact on the City.” February 19, 2014

Los Angeles Department of Water and Power. Letter to Ted Bardacke, Deputy Director of the Office of the Mayor, City of Los Angeles. “Subject: Bay Delta Conservation Cost Impacts on DWP Water Ratepayers.” January 7, 2014

“BDCP Economic Benefits and Financing Strategies.” Southern California Water Committee Report by the PFM Group, February 2012

“Urban Water Management Plan, 2010.” Los Angeles Department of Water and Power

David Sunding. “Bay Delta Conservation Plan Statewide Economic Impact Draft Report.” The Brattle Group. August 2013

Chris Thornberg. Presentation on Bay Delta Conservation Plan Economics. Beacon Economics March 25, 2014

cc: The Honorable Los Angeles City Council
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