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June 12, 2014

The Honorable City Council
Office of the City Clerk
Room 395, City Hall
Mail Stop 160

Attention: Councilmember Felipe Fuentes
Chairperson, Energy and Environment Committee

Honorable Members:

Subject: Council File No. 12-1909-S1– Council Motion (Fuentes) on Bay Delta Conservation Plan (BDCP) Environmental Impact Report/Environmental Impact Statement (EIR/EIS) – Request for Comments Prior to Submission to State's Natural Resources Agency

Council File No. 12-1909-S2 – Council Motion (Koretz) on BDCP Requesting a Cost-Benefit Analysis

This letter is in response to the above-referenced motions made by Councilmember Felipe Fuentes and Councilmember Paul Koretz, requesting the Los Angeles Department of Water and Power (LADWP), in conjunction/consultation with the Department of Public Works Bureau of Sanitation (LASAN) and the Office of Public Accountability/Ratepayer Advocate (OPA), to provide information regarding the draft BDCP and the associated draft EIR/EIS to the Energy and Environment Committee (E & E Committee) prior to submitting comments to the appropriate oversight agencies.

The draft BDCP and EIR/EIS were made available to the public for review on December 13, 2013. Comments for both documents were originally due by June 13, 2014. On May 30, 2014, the California Natural Resources Agency released the BDCP draft Implementing Agreement and extended the six-month public comment period for the draft BDCP and EIR/EIS by 46 days. Comments for all of the documents, including the draft Implementing Agreement, are now due by July 29, 2014.

This response, prepared with input from LASAN, provides the information requested in both motions and also proposes comments on the newly released draft Implementing Agreement.

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OVERVIEW OF LOS ANGELES' WATER SUPPLY

At present, the City of Los Angeles (City) receives its domestic water supply from the City's own resources and purchases from the Metropolitan Water District of Southern California (MWD), including:

- Eastern Sierra Nevada Watershed via the City-owned Los Angeles Aqueduct
- Sacramento-San Joaquin Delta (Delta) via the State Water Project's California Aqueduct (purchased from MWD)
- Colorado River via the Colorado River Aqueduct (purchased from MWD)
- Local groundwater
- Recycled water
- Water conservation

The combination of these sources plus conservation provides adequate, reliable water supplies to serve the City's needs. Local supplies and conservation alone are not enough to meet the water demands of the City. Even with significant investments in local water projects, imported supplemental water from the Delta and Colorado River will still be required to ensure reliability and buffer the effects of annual variations in precipitation statewide.

In an average hydrological year, the City purchases approximately 52 percent of its water supply from MWD, with about 44 percent coming from the Delta and about 8 percent coming from the Colorado River. This mix from MWD is dictated primarily by the City's location within the MWD system. In dry years, purchased water typically makes up a much larger percentage of the City's water supply. For example, purchased water is expected to make up about 79 percent of the City's supply during the current dry year, with about 71 percent coming from the Delta.

LADWP, in collaboration with LASAN, is diligently working to reduce the City's reliance on purchased water from the Delta by implementing new and innovative local projects and programs as outlined in the City's 2010 Urban Water Management Plan (UWMP) and the City's 2006 Water Integrated Resources Plan (IRP). The 2010 UWMP and the 2006 IRP identify increased investments in local water resource development – including water conservation, water recycling, and stormwater capture – and to remediate contaminated groundwater. The plans set a course to cut the City's average dependency on purchased water in half by 2035 (LADWP is pursuing plans to accelerate this goal by ten years).

These projects and programs are consistent with priorities outlined in the California Water Action Plan, issued by the Brown Administration in January 2014, and the 2009

Delta Reform Act, which states:

> *"The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency."*

LADWP considers groundwater remediation, local resource development, and a reliable supply of water from the Delta to be critical and complementary in ensuring the City's overall current and future water supply reliability.

The City's on-going efforts towards further developing additional local supplies are described below.

- **Conservation:** Los Angeles residents currently conserve approximately 100,000 acre feet per year (AFY) and use about the same amount of water as they did 40 years ago despite a population increase of one million people. To increase this conservation effort, LADWP continues to expand rebates and incentives for homeowners and business owners, provide technical assistance to customers, and promote California-friendly plants as an alternative to turf. LADWP also recently initiated a Water Conservation Potential Study to help identify and prioritize conservation programs and projects to maximize the water conserved for each dollar spent. The goal is to achieve an additional conservation savings of 64,000 AFY.

- **Recycled Water**: In 2012 LADWP developed a Recycled Water Master Plan to identify and prioritize potential projects. In September 2013, LADWP and LASAN initiated the environmental impact analysis process for a 30,000 AFY groundwater replenishment project utilizing advanced-treated recycled water, which is key to meeting the goal of using an additional 59,000 AFY of recycled water by 2035 or sooner. Work continues with partners such as LASAN to develop additional recycled water capability, including efforts currently underway to upgrade the Terminal Island Water Reclamation Plant to provide advanced-treated recycled water.

- **Groundwater Remediation**: In February 2009 LADWP initiated a six-year Groundwater System Improvement Study for the San Fernando Basin (SFB). When complete, the study will provide the data needed to determine the extent of contamination and recommend remediation options. Without remediation, the SFB groundwater supply of about 87,000 AFY may become unusable within the next decade due to contamination. The SFB is also the cornerstone of our local resource development efforts, which depend on the ability to pump from the San

Fernando Basin to recover the advanced-treated recycled water, captured stormwater, and excess wet-year water that will be stored there.

- **Centralized Stormwater Capture**: The 2010 UWMP also calls for increased stormwater capture to augment overall groundwater recharge by a minimum of 25,000 AFY. One of our key centralized stormwater capture projects, the Tujunga Spreading Grounds Enhancement Project, is set to start construction in early 2015. This project will double the recharge capacity of the spreading grounds from 8,000 to 16,000 AFY. LADWP is participating with the Los Angeles County Flood Control District in other major stormwater initiatives, including the Pacoima Spreading Grounds Improvement Project, Big Tujunga Dam Sediment Removal Project, and Pacoima Dam Sediment Removal Project. LADWP is investing more than $50 million in these four projects to significantly improve stormwater capture capabilities.

- **Decentralized Stormwater Capture**: LASAN is enhancing and managing stormwater by implementing the Green Infrastructure Program that includes Green Streets and Rainwater Harvesting programs. The Green Infrastructure Program is being implemented through a mix of institutional measures, policies and ordinances, local solutions and regional and green infrastructure projects. These measures are focused on the capture, infiltration, and use of stormwater while greening our communities and providing multiple benefits. Solutions include porous sidewalks and pavements, constructed wetlands, trees, grassy swales, wetlands, rain gardens, rain barrels, and cisterns. These projects are providing multi-benefits while leveraging our limited resources and maximizing our return on investments. LADWP estimates that 10,000 AFY of imported supplies can be avoided through stormwater capture and reuse efforts by 2035 or sooner.

In November 2004, Los Angeles voters approved Proposition "O", a half-billion dollar bond measure, by 76 percent. Proposition "O" was intended to promote multi-benefit and green infrastructure solutions and leverage resources. Over 36 projects are either complete or are being completed. The City is also implementing institutional measures and policy changes, including a landmark ordinance for low-impact development that requires the capture and onsite infiltration and use of the first ¾-inch of rain for all new developments and redevelopments. In addition, the City has developed a set of green street standards along with rain harvesting manuals.

LADWP will continue to work with LASAN, other City departments, and outside agencies to identify and implement cost-effective projects and programs to develop local water supplies and further reduce the City's dependence on purchased imported water.

Even as LADWP increases local supplies, high-quality imported water from the Delta will remain an important component of the City's water portfolio, especially in dry years. With full implementation of the local resource development and groundwater remediation programs outlined in the 2010 UWMP, the City will continue to rely on purchased water from MWD for up to 25 percent of supply in average hydrologic years and 50 percent of supply in dry years, with the majority of the water coming from Delta.

The Delta is currently in a state of decline. Water supplies pumped from the Delta are at risk due to several factors, including:

- Fishery declines, which have resulted in Delta pumping restrictions due to impacts to threatened and endangered fish species

- Seismicity, exemplified by the U.S. Geological Survey's (USGS) prediction that there is about a two-thirds chance of a major earthquake of magnitude 6.7 or greater occurring in the vicinity of the Delta before 2036

- Potential levee failure due to poor construction, subsidence caused by agricultural activities, potential sea level rise caused by climate change, and seismic activity

A solution for the on-going challenges in the Delta is needed to ensure that water deliveries to Southern California remain reliable. Without a solution, the Delta ecosystem will continue to degrade and water deliveries from the Delta are predicted to be reduced by 30 percent or more due to continuing fishery declines. In addition, seismic risks will persist, potentially resulting in the disruption of water deliveries for up to three years in the event of catastrophic levee failure.

BDCP OVERVIEW

BDCP is a comprehensive and strategic effort to fundamentally improve the State of California's (State) water supply reliability and restore the Delta ecosystem. The intent of the BDCP is not to take more water from the Delta, but to enhance the ecosystem and improve the reliability of existing supply investments. This strategy coincides with that of other utilities throughout the state who take imported water, including the City and County of San Francisco and the East Bay Municipal Utility District.

Development of BDCP is a joint state and federal effort led by the agencies responsible for the operation of the State Water Project (SWP) and Central Valley Project (CVP) -- the Department of Water Resources (DWR) under the California Natural Resources Agency, and the Bureau of Reclamation (Reclamation) under the U.S. Department of

the Interior – with guidance from the State and federal fish and wildlife agencies. As a result, the development process has been open and transparent, with multiple opportunities and options for public engagement and comment. At the outset of the BDCP planning process, a planning agreement was executed, and a BDCP Steering Committee was established. This Steering Committee was a group of stakeholders and regulatory agencies that guided the development process, and is listed in Table 1-1 of the draft BDCP. The steering committee included DWR, Reclamation, State Water Resources Control Board, U.S. Army Corps of Engineers, the State and federal fish and wildlife agencies, water agencies (including MWD), and environmental organizations, such as The Nature Conservancy and the Environmental Defense Fund.

The draft BDCP and environmental documents are the result of more than seven years of collaboration between public water agencies, fish and wildlife agencies, non-governmental organizations, agricultural interests, and the public. BDCP will be both a 50-year Habitat Conservation Plan (HCP) developed to comply with the Federal Endangered Species Act (ESA), and a Natural Community Conservation Plan developed to comply with the California Endangered Species Act (CESA) and the California Natural Community and Conservation Planning Act. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service are responsible for implementing and enforcing the federal ESA. The California Department of Fish and Wildlife is responsible for administering the CESA. If approved by these agencies, BDCP will provide the permits needed to complete the proposed projects and activities to restore and protect the Delta's water supply, water quality, and ecosystem health.

BDCP reflects a significant departure from the single-species approach used to address the Delta's ecological troubles in past decades. As a result of the single-species approach, federal and state regulators placed limits on SWP and CVP water deliveries to address the decline of native fish populations. These on-going limits have reduced Delta water supply by 20 to 30 percent and have challenged the ability of agencies across the State to meet the water needs of 25 million Californians and 3 million acres of farmland.

BDCP proposes specific actions to reduce the physical impact of water diversions; align water operations to better reflect natural and seasonal flow patterns; restore and develop new Delta habitat; reconnect floodplains and restore riverbanks to a more natural state; and reduce environmental stressors, such as invasive species. A cornerstone of the BDCP strategy is the construction of a dual-conveyance water delivery system that would modernize SWP's aging water conveyance network while also addressing the needs of the Delta ecosystem.

This proposed conveyance project would additionally reduce exposure to possible system interruption caused by the potential failure of aging levees due to sea level rise, climate change, land subsidence, and seismic events. By adding a water diversion point in the Sacramento River and establishing new operating criteria to improve water volume, water quality, timing, and salinity, along with other conservation measures, BDCP would improve native fish migratory patterns and habitat conditions and allow for greater operational flexibility.

The new conveyance project proposed by BDCP includes three new intakes along the Sacramento River in the north Delta and two 40-foot diameter underground tunnels approximately 30 miles long under the Delta to carry water to the CVP and SWP pumping plants. Gravity flow requires large-diameter tunnels to overcome friction losses and keep water moving through the system. A gravity-flow system eliminates the need for an intermediate pumping plant in the Delta, saves tremendous amounts of energy, and reduces greenhouse gas emissions. These twin tunnels would be capable of moving a maximum of 9,000 cubic feet per second (cfs), but would typically operate at much lower flow rates.

The draft EIR/EIS was prepared in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). It is intended to analyze and disclose the potential impacts on the environment from the proposed action and alternatives. The draft EIR/EIS considers 15 action alternatives, including the proposed BDCP, and one no-action alternative. Alternatives analyzed in the draft EIR/EIS include a combination of water conveyance configurations, capacities and operational criteria; conservation measures that include habitat restoration and conservation targets and environmental stressor reduction measures; and various impact avoidance and minimization measures. Impacts on human, physical, and biological resource areas are presented in the document. The evaluation includes site-specific mitigation for construction and operation of proposed water conveyance facilities.

PAST CITY SUPPORT OF A DELTA SOLUTION

In 2009, recognizing the importance of an environmentally sustainable Delta to the City's current and future water supply reliability, the Los Angeles City Council (Council) and then Mayor Antonio R. Villaraigosa voted to support the 2009 Delta Legislative Package (Council File No. 09-0002-S155 – enclosed), including Senate Bill (SB) X7-1 (Simitian), the 2009 Delta Reform Act.

Among other provisions, SB X7-1 included:

- An affirmation of the co-equal goals of restoring and enhancing the Delta ecosystem and providing a more reliable water supply to California.
- An achievable and balanced set of state policies to achieve these co-equal goals.
- Key provisions for the integration of BDCP into a future Delta Plan, which is a comprehensive management plan for the Delta that was adopted by the Delta Stewardship Council in May 2013.

On September 1, 2009, Mayor Villaraigosa affirmed this position in a letter to the State Senate's Natural Resources and Water Committee and the State Assembly's Water, Parks and Wildlife Committee. Mayor Villaraigosa's letter (enclosed) specifically addressed the City's support of prompt conveyance solutions, environmental stewardship, and emergency preparedness actions, such as those being proposed by BDCP.

On December 4, 2012, the Los Angeles Board of Water and Power Commissioners approved Resolution No. 013 118, which recommended that the Council and Mayor approve an official City position reaffirming support for BDCP, consistent with the City's support of the 2009 Delta Legislative Package. The Resolution also recommended that Council include in the City's 2013-2014 Legislative Program opposition to state or federal legislation that would undermine or delay the on-going BDCP process.

RESPONSE TO COUNCIL MOTIONS

As requested in the motion presented by Councilmember Fuentes (CF No. 12-1909-S1), enclosed for review and approval is a draft comment letter LADWP has prepared on the draft BDCP, draft EIR/EIS, and draft Implementing Agreement. If approved, the letter must be submitted to the lead agencies by the end of the public comment period on July 29, 2014. The draft comment letter discusses the results of a LADWP staff analysis regarding the cost of BDCP to Los Angeles ratepayers. (For your reference, an independent analysis completed by the OPA is enclosed.)

As requested in the motion presented by Councilmember Koretz (CF NO. 12-1909-S2), discussed below is a cost-benefit analysis of the impact of the BDCP to the City's ratepayers, a cost comparison to local supply initiatives, an analysis of the cost of replacing Delta supplies, and an analysis of potential externalities.

BDCP Cost-Benefit Analysis

Two independent consultants, ICF International and The Brattle Group prepared the August 2013 Draft BDCP Statewide Economic Impact Report (Draft Economic Report) for DWR. The Draft Economic Report takes a broad view, analyzing statewide economic impacts from implementation of the BDCP on the environment and various activities such as regional outdoor recreation, transportation, agricultural water supply salinity, air quality, and carbon sequestration. A copy of the Draft Economic Report can be obtained through the following link:

http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Draft_BDCP_Statewide_Economic_Impact_Report_8-5-13.sflb.ashx

Overall, the Draft Economic Report concludes that implementing the BDCP would substantially increase economic welfare, business activity, and employment in the State. BDCP would prevent future reductions in SWP and CVP water deliveries that could result from implementation of stricter environmental flow requirements in the Delta. By maintaining and stabilizing Delta exports at levels close to those of the recent past, BDCP would increase State economic productivity by over $83.5 billion and create or preserve up to 1.1 million State jobs. Construction and operation of water conveyance facilities in the Delta and implementation of other conservation measures would result in $11.0 billion in additional compensation (i.e., salary and benefits) to workers in the State.

The Draft Economic Report also estimates that the BDCP would generate $4.7 billion in net water supply benefits to the state and federal water contractors that receive SWP and CVP deliveries from the Delta. These benefits result from improved water supply reliability, reduced salinity, and reduced seismic risks to water supplies:

- Water supply reliability benefits are calculated for a total of 36 major urban water utilities throughout northern, central and southern California that receive Delta water supplies. These agencies receive the bulk of SWP water deliveries and have the largest potential to experience changes in welfare as a result of variations in the availability of Delta water supplies. A key benefit to water agencies is less frequent and less drastic water shortage impacts.

- Water quality benefits are based on reduced salinity levels in the exported water. By adding the northern diversion point in the Sacramento River, BDCP will reduce salinity levels and thus improve the quality of Delta water exports. Other water quality benefits not directly related to salinity changes, such as any potential treatment cost savings in other constituents in the urban sector, were not considered

in the draft BDCP. MWD expects the proposed conveyance project to reduce bromide and dissolved organic carbon concentrations, which will postpone or possibly eliminate the need for additional enhanced coagulation treatment at the Los Angeles Filtration Plant, which is projected to cost Los Angeles water rate payers $600 million to build.

- Reduced seismic risks benefits are based on the additional reliability provided by the proposed northern diversion point on the Sacramento River, upstream of the Delta. A large earthquake in or near the Delta region could cause many of the old, poorly constructed levees to fail, resulting in extensive flooding of the Delta islands and a significant water quality impact from sea water. The proposed northern diversion point would allow a significant amount of water deliveries to continue in the event of catastrophic levee failures.

Adding all monetized impacts together, the Draft Economic Report found the BDCP would result in an improvement in the economic welfare of State residents of between $4.8 billion and $5.4 billion. These totals do not include additional expected statewide economic costs and benefits to the activities or values in the Delta that could not be quantified or monetized in this study: flood risk, property values and viewscapes, commercial fisheries, urban water treatment, and erosion and sedimentation. BDCP is expected to have a net positive economic effect on commercial fisheries. In all other cases, BDCP may have both positive and negative economic effects, but those effects are predicted to be small. It is unlikely that these unmonetized categories of impacts are large relative to the welfare gains from improved water supply reliability, or to the stimulus effect of BDCP on State output and employment. Therefore, the BDCP is predicted to result in substantial economic benefits to State businesses and residents.

Cost estimates for the construction of the proposed conveyance project continue to be refined as the BDCP process moves forward. The current estimate includes a 20 percent contingency on land acquisition tasks and a 36 percent contingency on construction. Cost control will be critical to protect City ratepayers and ensure that local funds remain available to meet local water supply goals.

LADWP staff analyzed the costs of BDCP proposed conveyance project to estimate an expected impact to City ratepayers and summarized the findings in a report titled "White Paper on Bay Delta Conservation Plan (BDCP) Cost Impacts on LADWP Water Ratepayers," dated January 2014 (enclosed). Staff determined that a typical single-family residential household in the City would expect to see about a $2 to $3 per month increase in their water bill to pay for the construction of the proposed conveyance project.

The OPA Report dated May 7, 2014 considered best-case, expected-case, and worst-case scenarios with respect to BDCP costs for both conveyance and ecosystem restoration. OPA's expected-case results were generally consistent with those of LADWP staff, indicating total BDCP cost to a typical single-family household in the City would be about $2.13 per month, with the proposed conveyance portion of the project, which is the portion of the total cost that would be reflected on an LADWP customer's water bill, was estimated at less than $1 per month for a typical household using 12 hundred cubic feet (HCF). The OPA Report does include potential policies that could minimize LADWP ratepayer costs associated with the BDCP, including increasing cost-effective local water supply reliance in order to reduce volumetric-based MWD charges.

As mentioned previously, there is projected to be a two-thirds chance of a major earthquake of magnitude 6.7 or greater occurring in the vicinity of the Delta before 2036. This could significantly impact Delta levees, which are old and poorly constructed, and result in a disruption of SWP water deliveries to Southern California. The economic impact of a major water supply disruption to Los Angeles County was studied by Dr. Adam Rose of the University of Southern California (USC) in conjunction with the Los Angeles Economic Development Corporation (LAEDC). Findings indicate that Los Angeles County could suffer startling job and gross domestic product (GDP) losses if a major water supply disruption were to occur. The study models a shutdown of the California Aqueduct due to a man-made or natural disaster such as an earthquake in the Delta. In a normal hydrologic year, a 24-month outage of the California Aqueduct could lead to a loss of 750,000 job-years and $75 billion in GDP. A three-year disruption would result in a total revenue loss to Los Angeles County of up to $240 billion in GDP. During a drought year, such as the one that occurred in 2007, a 12 month outage to the California Aqueduct is estimated to result in economic losses of as much as 550,000 job-years and $55.6 billion in GDP. A copy of the report, titled "Total Regional Economic Losses from Water Supply Disruptions to the Los Angeles County Economy," can be downloaded through the following link:

http://cdn.laedc.org/wp-content/uploads/2012/11/FINAL-LA-Water_Report-7-23-2013.pdf

BDCP Cost Comparison to Local Water Supply Initiatives

Preliminary estimates show that 2010 UWMP goals to remediate groundwater and develop local water resources will require about $2.5 billion in local projects (capital costs) to provide and ensure a total of about 258,800 AFY of local water supply, including our existing groundwater entitlements. State and federal funding, such as that potentially provided by a 2014 State Water Bond, could help minimize rate impacts to Los Angeles ratepayers. State bond funding could help the City to reduce its future

reliance on the Delta, improving both the City and State's water supply reliability.

MWD's approximate cost share for BDCP is assumed to be about 25 percent of the proposed conveyance project cost of $14.57 billion (present-day capital cost), or about $3.64 billion. For estimating purposes, it is assumed at this time that MWD's member agencies will be paying for MWD's share of the BDCP costs through MWD's water sales to its member agencies. The City currently accounts for 15 percent of MWD's total sales. Accordingly, the City's share of BDCP capital costs (collected primarily through MWD rates) is estimated to be about 15 percent of $3.64 billion or $550 million (with financing and operation and maintenance costs, this represents approximately $50 million per year). As the City achieves its local water supply goals, thereby cutting purchases from MWD in half, the City's share of BDCP costs will be reduced proportionally.

Cost of Replacing Delta Supply

About 365,000 AFY of new water would be needed to replace the City's Delta supplies in a typical dry year, even with all of the local resource development projects proposed in the 2010 UWMP completed and operational. LADWP has evaluated potential new alternative water supplies to further reduce the City's dependence on purchased water from MWD that exceed the efforts proposed in the 2010 UWMP. However, the feasibility of new, alternative water supplies is severely limited by regulation, capacity, cost, and community and societal impact.

One potential alternative replacement supply that could yield 365,000 AFY is ocean water or brackish groundwater that is treated through desalination. An example of a current desalination project in construction in Southern California is the Carlsbad Desalination Plant Project, located about 35 miles north of San Diego. The total annual debt service and operation and maintenance cost for the Carlsbad Plant is estimated at about $160 million per year for 30 years, for a total of about $4.8 billion over 30 years (capital and finance costs). The Carlsbad Plant will be the largest desalination facility in the western United States, with a maximum production of 56,000 AFY. To be able to replace 365,000 AFY of Delta supply, LADWP would need to construct and operate 6.5 desalination facilities with capacities equivalent to the Carlsbad Plant.

Plans to replenish groundwater with advanced-treated recycled water and captured stormwater are included in the 2010 UWMP. However, the feasibility of efforts to provide additional water supply beyond the scope of the 2010 UWMP is impacted by the recharge capacity of the groundwater basins, existing contamination and the capacity of the proposed groundwater remediation facilities, and the ability to recover recharged, stored water from adjudicated groundwater basins.

For context, reducing City-wide water demands by 365,000 AFY through conservation alone would require all customers to cut their water use by more than 70 percent based on current water demands. To accomplish this at the current population level would require the virtual elimination of all outdoor water use and some indoor water use across the City.

One potential future alternative water supply is advanced-treated recycled water provided for direct potable use. Advanced-treated effluent from the City's Hyperion Wastewater Treatment Plant (HTP) could be pumped through new pipelines to existing LADWP drinking water treatment facilities or to reservoirs for storage and distribution. Direct potable reuse is not currently permitted in California. However, existing law requires the California Department of Public Health to investigate the feasibility of developing uniform water recycling criteria for direct potable reuse and provide a final report by December 31, 2015. LADWP is contributing to critical research projects in this area of potable reuse to provide the scientific data needed by regulators. Within the next two to three years, LADWP expects to be able to determine the costs, benefits, and feasibility of this potential option.

Analysis of Externalities

As requested by the motion, this section provides an analysis of potential externalities of BDCP that may impact City ratepayers. Externalities examined include impacts to local jobs and the economy; seismic safety of local and statewide infrastructure; surface water storage challenges; and energy costs.

Local Jobs and Economy

As mentioned previously, LADWP considers local water supply development programs, as identified in the 2010 UWMP, and a secure and reliable water supply from the Delta to be both critical and complementary to ensuring overall water supply reliability for the City.

Preliminary estimates indicate that LADWP's plans to develop local water resources will generate about $2.5 billion worth of local construction projects. A standard regional economic impact model called IMPLAN was used to estimate the local economic benefits from this construction activity. These economic benefits include: (1) direct impacts, related to direct employment for project construction; (2) indirect impacts, related to employment and sales and services to support project construction; and (3) induced impacts, incurred as a result of both direct and indirect activities, such as restaurants, hotels, housing, shopping, etc. The IMPLAN model estimated regional economic benefits to Los Angeles County of $3.5 billion in 2012 dollars. This translates

into 22,056 total person-years of employment created from construction activity associated with LADWP's local water supply development.

The non-profit group Economic Roundtable studied over $1.2 billion of investments in recent water-use-efficiency projects in the City area (i.e., including a sample of 53 recent local stormwater, water conservation, graywater, recycled water, groundwater management and remediation projects) to find how they affected the local economy. A key finding: for every $1 million dollars invested, 12.6 to 16.6 annualized jobs are created, depending on the type of project. These local jobs impacts are comparable to those stimulated through energy efficiency retrofits of commercial buildings (13.6 per $1 million), and higher than construction of new housing (11.3 per $1 million) and motion picture production (8.3 per $1 million). A link to the report is provided below:

http://www.economicrt.org/summaries/Water_Use_Efficiency_and_Jobs_Study.html

As mentioned previously, the economic impact of a water supply disruption to Los Angeles County, which could result from catastrophic levee failure in the Delta, was studied by USC for LAEDC. Results indicated that in a normal hydrologic year, a 24-month disruption of water deliveries from the SWP could lead to a loss of 750,000 job-years. During a drought year, such as the one that occurred in 2007, a 12-month disruption of deliveries could result in economic losses of as much as 550,000 job-years. The complete report, providing job losses for different hydrologic scenarios and disruption periods, is available through the following link:

http://cdn.laedc.org/wp-content/uploads/2012/11/FINAL-LA-Water_Report-7-23-2013.pdf

Seismic Safety of Local and Statewide Infrastructure

The City's 2010 UWMP, Section 11.3.3, discusses LADWP's response plan in event of major earthquake and a resulting disruption in water delivery via the Los Angeles Aqueduct. LADWP will be able to use its water storage in the Bouquet Reservoir to provide water supply to the City while repairs are made, along with further restrictions in water use. Implementation of BDCP is not expected to impact these plans. BDCP does not address the seismic safety of the 1,100-mile levee system in the Delta. On-going levee improvements remain an important part of the comprehensive plan for the Delta, but levee improvements alone would not address the co-equal goals of ecosystem restoration and water supply reliability that are the focus of BDCP. The proposed BDCP conveyance project would provide a new intake facility located in the northern Delta that would allow water to reach the federal and state water project pumps even in the event of major levee failure in the Delta. As discussed previously, a study commissioned by

LAEDC predicts significant, negative economic impacts to Los Angeles County in the case of a major water supply disruption to Southern California.

Surface Water Storage Challenges

BDCP does not address surface water storage but does facilitate the ability to move and store additional water supplies in wet years. The proposed pumping facility in the north Delta would provide needed operational flexibility to the SWP, so more water can be pumped during wet weather events when impacts to the fisheries are low or negligible. This water could then be stored in groundwater basins or reservoirs for use during the dryer months of the year, or in dry years when the Delta ecosystem cannot withstand normal diversions.

In much the same manner, BDCP addresses one of the real challenges of climate change, namely that future precipitation will be more in the form of rain than snow, significantly reducing the storage of water in the form of snowpack. The loss of this "natural reservoir" can be mitigated by the ability to divert large and often sporadic rain events into water storage facilities to be utilized throughout the year in lieu of the traditional water supply derived from slowly melting snow.

Energy Costs

As discussed in the City's 2010 UWMP (Chapter 12, Exhibit J), the water supplied from the SWP is the most energy-intensive source of water currently available to LADWP. Water supplied through the West Branch of the SWP requires a net energy use of approximately 2,580 kilowatt-hours per AF (kWh/AF) of water transported from the Delta to the terminus point at Lake Castaic. Water from the West Branch is provided to the San Fernando Valley, Western Los Angeles, and Central Los Angeles. Water supplied through the East Branch of the SWP requires a net energy use of approximately 3,236 kWh/AF of water transported from the Delta to the terminus point at Lake Perris. Water from the East Branch is provided to the Eastern Los Angeles and Harbor communities.

Chapter 21 of the BDCP draft EIR/EIS provides an analysis of energy requirements of the BDCP. Table 21-11 of the draft EIR/EIS indicates that preferred Alternative 4 requires an additional 65 megawatt-hours per thousand-AF, which is equivalent to 65 kWh/AF of water.

The 2010 UWMP does not include additional energy costs for proposed local resource projects. Additional energy would be needed for advanced treatment for groundwater replenishment with recycled water and groundwater remediation. The City's current

energy intensity of recycled water is estimated at 1,139 kWh/AF of water, and the current energy intensity of local groundwater is estimated at 530 kWh/AF of water. Both of these energy intensities are well below those of the SWP. Additional water conservation would be expected to save energy that would have been used for delivery, home heating, and wastewater treatment.

By comparison, the new Carlsbad Desalination Plant Project reports an estimated total baseline power use of about 4,900 kWh/AF of water.[1] The power use incorporates both production of fresh drinking water, as well as conveyance and delivery of the water to public water agency customers. These data indicate that SWP supplies from the Delta are significantly less energy intensive than desalinated water.

ADDITIONAL COMMENTS ON THE DRAFT BDCP IMPLEMENTING AGREEMENT

The BDCP draft Implementing Agreement (IA) defines the obligations of DWR, the participating public water agencies, the state and federal fish and wildlife agencies, State of California, and the United States regarding the implementation of BDCP. Many key elements of the draft BDCP are incorporated by reference, such as the conservation strategy, governance structure, implementation schedule, and public funding to be made available by state and federal governments.

The draft IA also includes new and supplemental information, including the relationship of the BDCP to future regulatory processes; regulatory assurances that are anticipated to be provided to DWR and the public water agencies; remedies and procedures in the event of a funding shortfall or a failure to comply with the terms of the IA, BDCP or associated permits.

The draft IA does not yet address final cost sharing percentages by the state and federal water contractors. In past positions on the Delta and BDCP, the City established a principle of paying a fair share for the construction of conveyance facilities and associated mitigation. Acting in the best interest of its ratepayers, LADWP will continue to monitor negotiations, review future drafts of the implementing agreement, and work to ensure that City ratepayers are not required to bear unjustified costs.

CONCLUSIONS

Local resource development, groundwater remediation, stormwater management, and a

[1] Carlsbad Seawater Desalination Project, Energy Minimization and Greenhouse Gas Reduction Plan, December 10, 2008. http://carlsbaddesal.com/Websites/carlsbaddesal/images/Project_Documents/Final_GHG_Plan_121008.pdf

project to sustain Delta water deliveries are critical and complementary efforts that are needed to ensure the City's water supply reliability. BDCP is not an alternative to local supply development, but in concept is a complementary investment in the reliability of the City's supplemental water supply provided by the SWP system, which City ratepayers have been utilizing and financially supporting over the past 50 years and will continue to rely on in the future.

Ability to produce water from the Delta is currently facing many risks (i.e., earthquakes, levee failure, ecosystem decline, sea level rise, climate change, and fish restrictions) which if ignored, will have serious impacts to the City's water supply reliability and economy. BDCP is an approach to implement a long-term solution in the Delta that ensures the reliability of the State-wide water supply and restores and protects the Delta ecosystem. Based on cost estimates available, independent experts have concluded in their analyses that statewide benefits associated with BDCP outweigh the costs. These benefits include the conservation and protection of Delta species and the environment, as required under the provisions of the federal and state endangered species acts.

There is a critical need for both a Delta solution and increased local water resource development to address the City's need for an adequate and reliable supply of water in the future. LADWP is committed to pursuing both of these objectives while protecting the interests of our ratepayers.

If you have any questions or if further information is required, please call me at (213) 367-1338, or have your staff contact Ms. Winifred J. Yancy, Director of Intergovernmental Affairs and Community Relations at (213) 367-0025.

Sincerely,

Marcie L. Edwards
General Manager

KO:vf

Enclosures: Council File No. 09-0002-S155 – City's Position on Delta Package Legislation
Delta/Water Legislation Package (Delta Package), Dated September 1, 2009
Draft Comment Letter Regarding the Draft BDCP, Associated Draft Environmental Documents, and Draft Implementing Agreement
Report from OPA on BDCP and California State Water Bond Costs to City of Los Angeles Ratepayers (revised), Dated May 7, 2014
White Paper on BDCP Cost Impacts on LADWP Water Ratepayers – Dated January 2014

c: The Honorable Bob Blumenfield, Vice-Chair, Energy and Environment Committee
The Honorable Jose Huizar, Member, Energy and Environment Committee
The Honorable Paul Koretz, Member, Energy and Environment Committee
The Honorable Tom LaBonge, Member, Energy and Environment Committee
Mr. Adam Lid, Legislative Assistant
Ms. Winifred J. Yancy

DRAFT COMMENT LETTER

{Date}

BDCP Comments
Ryan Wulff, National Marine Fisheries Service
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814

Subject: Comments on the Draft Bay Delta Conservation Plan, Associated Draft Environmental Documents, and Draft Implementing Agreement

Dear Mr. Wulff:

On behalf of the Los Angeles Department of Water and Power (LADWP), thank you for the opportunity to comment on the draft Bay Delta Conservation Plan (BDCP), associated draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS), and draft BDCP Implementing Agreement.

The City of Los Angeles (City) is working diligently to reduce its reliance on water from the Sacramento-San Joaquin Delta (Delta) by implementing a host of local water supply projects and programs outlined in LADWP's 2010 Urban Water Management Plan (UWMP) and the City's 2006 Water Integrated Resources Plan. Those plans identify significant investments in water conservation, water recycling, stormwater capture, and groundwater remediation aimed at reducing by half the City's dependency on imported water purchased from the Metropolitan Water District of Southern California (MWD).

These efforts are consistent with priorities of the California Water Action Plan, issued by the Brown Administration in January 2014, and the 2009 Delta Reform Act, which states:

> *"The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency."*

Increased local water resource development, conservation, and groundwater cleanup, along with State efforts to ensure reliable deliveries from the Delta, are necessary to secure the City's water future. Local supplies alone will not be sufficient to meet the City's water needs into the foreseeable future, and after fully implementing the local resource development and groundwater remediation programs outlined in the 2010 UWMP, imported supplemental water from the Delta will still be required as part of Los Angeles' water portfolio. That diverse portfolio is particularly important in dry years, when the City will rely on purchased imported water from MWD for up to 50 percent of its supply, with the majority of that purchased water coming from the Delta.

LADWP is the largest municipally owned water and power utility in the nation, serving a 464 square-mile area and delivering water and electricity to nearly four million residents and businesses in the City. The City receives most of its water from the Eastern Sierra Nevada through the Los Angeles Aqueduct, by purchases from MWD, and from locally pumped groundwater. A mix of these sources, along with a strong water conservation ethos and some water recycling, provide the water supply needed to serve the City.

In an average hydrological year, the City now purchases approximately 52 percent of its water supply from MWD, with about 44 percent coming from the Delta and about 8 percent coming from the Colorado River. In dry years, purchased water makes up a much larger percentage of the City's water supply. For example, purchased water will make up about 79 percent of the City's supply during the current year, with about 71 percent coming from the Delta.

The LADWP's experience is that Delta water supplies have already been reduced by about 30 percent in recent years due to concerns about impacts to the Delta fishery system, and we anticipate that maintaining the status quo will result in the continuing decline of the Delta ecosystem and a likely increase in pumping restrictions. The Delta's levee system is at risk from a variety of factors including climate change, sea level rise, land subsidence, earthquake, and storm surge events. In the case of major levee failures in the Delta, water deliveries to Southern California could be disrupted for up to three years. The Los Angeles Economic Development Corporation estimates that a three-year disruption of water deliveries from the Delta could result in a total revenue loss to Los Angeles County of $240 billion.[1]

The City was supportive of the passage of the 2009 Delta Reform Act and continues to monitor the current BDCP process. Consistent with the City's support of the 2009 Delta Reform Act, LADWP supports a solution that provides the following:

- Equitable cost distribution according to a "beneficiary pays" approach.
- Enhanced Delta ecosystem fishery habitat throughout the Delta.
- Increased water supply reliability to the Southern California region.
- Flexible Delta pumping operations to help reduce the inherent conflict between fisheries and water conveyance.
- Improved export water quality to meet stricter urban drinking water standards while also allowing habitat features that promote a healthy food web for fish.
- Reduced climate change risks to export water supplies, including reduced risk from salinity intrusion and levee failure associated with rising sea levels and storm surge events.
- Reduced risks to export water supplies from seismic-induced levee failure, land subsidence, and subsequent flooding.

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[1] "Total Regional Economic Losses from Water Supply Disruptions to the Los Angeles County Economy," July 23, 2013. Report prepared by A. Rose, I.S. Wing, D. Wei, and M. Avetisyan of the Price School of Public Policy and Center for Risk and Economic Analysis of Terrorism Events, University of Southern California for the Los Angeles County Economic Development Corporation. 54 pages.

Proposals identified in the draft BDCP EIR/EIS meet the principles for a Delta solution that the City supported in 2009. A viable solution will better protect threatened and endangered fish species, and also address the impacts of climate change on the Delta system, which may result in changes in the water volume and runoff pattern of the Sacramento River and Delta watershed, and a decreased proportion of precipitation that is naturally stored as snowpack.

Because implementation of BDCP will not occur in the Los Angeles area, the primary impact to LADWP ratepayers is cost. The draft BDCP documents, including the Implementing Agreement, do not yet address final cost sharing percentages for the state and federal water contractors. Nor do the draft BDCP documents protect Los Angeles ratepayers from the risk of cost overruns and issues with project delivery. In past positions on the Delta and BDCP, the City has established a principle of paying a fair share for the construction of conveyance facilities and associated mitigation. LADWP will continue to monitor negotiations, review future drafts of the implementing agreement, and work to ensure that City ratepayers are not required to bear additional or unjustified costs. It is of paramount importance to LADWP that costs associated with a Delta solution do not impact the ability to invest adequately in local resource projects.

Based on the information available, LADWP staff estimates a typical single-family residential household in Los Angeles would expect to see a $2-3 per month increase in their water bill to pay for the construction of the proposed conveyance facility, also called Conservation Measure 1. This estimate is based on several assumptions and variables, including the following:

- Total cost for the conveyance facility is $14.5 billion, with annual debt service costs of $1.1 billion.
- Costs are shared equitably among water exporters based on water deliveries, with MWD's expected share of the state contractor's cost at about 50 percent.
- LADWP continues to purchase water from MWD at current volumes, which is about 15 percent of MWD's total sales.
- LADWP collects revenue to cover this cost through retail water sales.
- A typical single-family residential household in Los Angeles uses about 12 hundred cubic feet per month.

Chapter 8 also recommends that most of the costs associated with Conservation Measures 2 through 22 (Delta habitat enhancement and restoration and other stressors) and other tasks (monitoring, research, plan administration) should be paid for by State and federal funding sources. LADWP staff agrees with this recommendation, given the statewide and regional benefits provided by these measures and tasks.

LADWP firmly believes that ensuring the reliability of Delta supplies is only one component of the City's water supply equation. Preliminary estimates indicate that meeting the local resource development and groundwater remediation goals outlined in the City's 2010 UWMP will require about $2.5 billion in local projects (capital costs) to reach a total of about 258,800 acre feet per year (AFY) of local water supply, including

existing groundwater entitlements. State and federal funding, such as that potentially provided by a 2014 Water Bond, would help to minimize the rate impacts to Los Angeles ratepayers. LADWP urges the state and federal governments to provide additional funding to make local resource development (i.e., water conservation, water recycling, and stormwater capture) and groundwater remediation projects locally cost effective for ratepayers. This funding is critical to reducing future dependence on the Delta.

Local resource development, groundwater remediation, and an improved and reliable Delta water delivery system are complementary efforts and critical to the overall future reliability of the City of Los Angeles' water supply and to the continuing success of its economy. These local efforts are also critical to achieve the environmental benefits that are fundamental to the BDCP by lessening future demands on the Delta. The City's local resource projects go hand-in-hand with a Delta solution and serve to further the Governor's water policy by reducing the City's future reliance on the Delta.

LADWP acknowledges that BDCP is a comprehensive effort to address the chronic water challenges facing both the State Water Project and the Central Valley Project in a manner that also protects the Delta environment. The Delta is currently facing many risks (i.e., earthquakes, levee failure, land subsidence, ecosystem decline, sea level rise, storm surge, climate change, and fish restrictions), which if ignored, will have serious impacts to the City's water supply reliability and economy. There is an opportunity now to implement a long-term solution in the Delta, but the State must remember that the support of local water resource projects is a necessary component of the broader statewide water solution, and that proper cost control and allocation of a Delta solution will be necessary to ensure those local resource projects can be constructed.

We appreciate the extended public comment period for the draft BDCP and associated documents to allow for the input of stakeholders, including export interests, and the thoughtful consideration of public input that has characterized the BDCP development process to date.

If you have any questions regarding these comments, please contact Mr. David R. Pettijohn, Director of Water Resources, at (213) 367-0899.

Sincerely,

James B. McDaniel
Senior Assistant General Manager – Water System

RESOLUTION

WHEREAS, any official position of the City of Los Angeles with respect to legislation, rules, regulations or policies proposed to or pending before a local, state, or federal government body or agency must have first been adopted in the form of a Resolution by the City Council with the concurrence of the Mayor; and

WHEREAS, on December 9, 2013, the state's Natural Resources Agency announced the release of the proposed Bay Delta Conservation Plan (BDCP) for formal public review and comment, including the BDCP's draft plan and draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS); and

WHEREAS, the BDCP is a comprehensive habitat conservation plan that seeks to restore the ecosystem in the Sacramento-San Joaquin Delta (Delta) and improve reliability of water supplies delivered through the State Water Project; and

WHEREAS, the BDCP plans to secure the state's and the Los Angeles region's water supply by building new water conveyance infrastructure and operating it in a manner that restores the Delta's ecological health; and

WHEREAS, on April 25, 2014, a Motion (Fuentes – Wesson; CF# 12-1909-S1) was introduced requesting the Department of Water and Power, and specified City departments, to prepare comments relative to the draft plan and draft EIR/EIS for review and consideration prior to the state's June 13, 2014 comment submittal deadline; and

WHEREAS, on May 30, 2014, the state released the BDCP draft implementing agreement and extended the comment submittal deadline to July 29, 2014; and

WHEREAS, the Department of Water and Power has prepared comments on the BDCP's draft plan, draft EIR/EIS, and draft implementing agreement on behalf of the City; and

WHEREAS, the prepared comments seek to protect the interests of the City, ensuring that the co-equal goals of water supply reliability and ecosystem restoration are met in the Delta;

NOW, THEREFORE, BE IT RESOLVED, that by adoption of this Resolution, with the concurrence of the Mayor, the City of Los Angeles hereby includes its 2013-2014 State Legislative Program the submittal of the City's comments, as attached to the file (CF#12-1909-S1), to the appropriate state and federal lead agencies concerning the BDCP's draft plan, draft Environmental Impact Report/Environmental Impact Statement, and draft implementing agreement as prepared by the Department of Water and Power.

BE IT FURTHER RESOLVED, that the Department of Water and Power be authorized to submit the comments to the state and federal lead agencies, on behalf of the City, by the comment submittal deadline of July 29, 2014.

JUNE LAGMAY
City Clerk

KAREN E. KALFAYAN
Executive Officer

HOLLY L. WOLCOTT
Executive Officer

CITY OF LOS ANGELES

ANTONIO R. VILLARAIGOSA
MAYOR

Office of the
CITY CLERK

Council and Public Services
Room 395, City Hall
Los Angeles, CA 90012
General Information - (213) 978-1133
Fax: (213) 978-1040

KONRAD CARTER
Acting Chief, Council and Public Services Division

www.cityclerk.lacity.org

August 28, 2009

To All Interested Parties:

Chief Legislative Analyst

I HEREBY CERTIFY that City Council adopted the action(s), as attached, under Council file No. 09-0002-S155, at its meeting held August 14, 2009.

June Lagmay

City Clerk
et

cc: 8 Certified copies sent to Sacramento Representatives

Mayor's Time Stamp

OFFICE OF THE MAYOR
RECEIVED
2009 AUG 18 AM 11:05
CITY OF LOS ANGELES

FORTHWITH

City Clerk's Time Stamp

RECEIVED
CITY CLERK'S OFFICE
2009 AUG 18 AM 10:59
CITY CLERK
BY _____ DEPUTY

SUBJECT TO THE MAYOR'S APPROVAL

COUNCIL FILE NO. 09-0002-S155 COUNCIL DISTRICT _____

COUNCIL APPROVAL DATE AUGUST 14, 2009

RE: CITY'S POSITION ON AB 39 (HUFFMAN), SB 12 (SIMITIAN), SB 229 (PAVLEY), SB 457 (WOLK), AND SB 458 (WOLK), KNOWN AS THE "DELTA PACKAGE LEGISLATION"

LAST DAY FOR MAYOR TO ACT AUG 28 2009
[10 Day Charter requirement as per Charter Section 231(h)]

DO NOT WRITE BELOW THIS LINE - FOR MAYOR USE ONLY

APPROVED ✓

*DISAPPROVED _____

*Transmit objections in writing pursuant to Charter Section 231 (h)

DATE OF MAYOR APPROVAL OR DISAPPROVAL AUG 25 2009

MAYOR

RECEIVED
CITY CLERK'S OFFICE
2009 AUG 26 AM 8:25
CITY CLERK
BY _____ DEPUTY

Steno/090002.155 .ml

09-0002-S155

RESOLUTION

RULES & GOVERNMENT

JUL 21 2009

31

WHEREAS, any official position of the City of Los Angeles (City) with respect to legislation, rules, regulations or policies proposed to or pending before a local, state, or federal government body or agency must have first been adopted in the form of a Resolution by the City Council with the concurrence of the Mayor; and

WHEREAS, the Sacramento-San Joaquin River Delta (Delta) is the hub of California's water supply and a unique ecological resource that should be restored and sustained; and

WHEREAS, the Delta is a major source of drinking water for the City through purchases from the Metropolitan Water District of Southern California; and

WHEREAS, the Delta is in an ecological crisis as native species, such as the Delta Smelt, have seen a significant decline in population as reported in biological opinions from the US Fish and Wildlife Services; and

WHEREAS, the exportation of water is thought to be one of several causes of the Delta's decline and, as a result, federal court orders have mandated significant water export reductions; and

WHEREAS, the City and the Los Angeles Department of Water and Power (LADWP) have realized the importance of strengthening our reliance on local water supplies by implementing aggressive water conservation and recycling goals as set forth in the Plan entitled - Securing LA's Water Supply; and

WHEREAS, the Governor, the State Legislature, and State Resources Agencies acknowledge that the status quo in the Delta is not sustainable and the creation of a legislative bi-partisan, bicameral committee is needed to develop a series of bills referred to as the "Delta Package" that will incorporate findings of the Delta Vision Strategic Plan, the Bay Delta Conservation Plan, and other findings to address issues in the Delta, including water supply, reliability, conveyance, governance, ecosystem protection, and water conservation/water use efficiency; and

WHEREAS, legislative and regulatory proposals in the Delta Package may result in regulations, fees, and infrastructure improvements in the Delta that could adversely impact the supply, reliability, and cost of the City's water supply and service to its ratepayers.

NOW, THEREFORE, BE IT RESOLVED, with the concurrence of the Mayor, that by the adoption of this Resolution, the City hereby includes in its 2009-2010 State Legislative Program SUPPORT for AB 39 (Huffman), SB 12 (Simitian), SB 229 (Pavley), SB 457 (Wolk), and SB 458 (Wolk), known as the "Delta Package Legislation," relative to the restoration of the Delta, IF AMENDED to:

- Ensure stewardship of environmental resources with actions that encourage a holistic, sustainable approach to stabilizing and restoring the Delta;
- Identify mechanisms and conveyance alternatives to export water that improves water quality while sustaining ecosystem needs, and meeting long-term drinking water and ecosystem goals;
- Address the State's urgent water supply crisis and ensure a reliable, sustainable, cost-effective supply of water;
- Reduce risks to population, property, and water supply reliability by developing an effective, comprehensive, and long-term emergency preparedness strategy and adequate emergency response plan;
- Establish an entity to oversee governance of Delta issues and implementation of a Delta Sustainability Plan designed to address the co-equal goals of ecosystem restoration and water supply reliability.

PRESENTED BY:

JAN PERRY
Councilmember, 9th District

SECONDED BY:

ORIGINAL

ADOPTED

AUG 14 2009

July 21, 2009

LOS ANGELES CITY COUNCIL
TO THE MAYOR FORTHWITH

MOTION WITH FILE

OFFICE OF THE MAYOR

ANTONIO R. VILLARAIGOSA

September 1, 2009

Honorable Members
Senate Natural Resources and
Water Committee
State Capitol, Room 4035
Sacramento, CA 95814

Honorable Members
Assembly Water, Parks and
Wildlife Committee
1020 N Street, Room 160
Sacramento, CA 95814

Regarding: Delta/Water Legislation Package (Delta Package)

Dear Honorable Members:

On behalf of the City of Los Angeles (City) and the Los Angeles Department of Water and Power, I would like to express our appreciation for the Legislature's efforts to craft a comprehensive legislative package that encompasses the critical issues surrounding the Sacramento-San Joaquin Delta and California water policy. The City has adopted a 'support if amended' position on the Delta Package, and will be able to fully support if the individual bills either reflect or are amended to address the following general issues:

- **Prompt Conveyance Solutions:** The package should ensure the timely implementation of conveyance alternatives and appropriate early actions to secure export-water quality, sustainability and reliability while sustaining the Delta's ecosystem and the needs of its local communities.
- **Environmental Stewardship:** The package should ensure the long-term stewardship of the Delta watershed's environmental resources by implementing actions that encourage a holistic, sustainable approach to stabilizing and restoring the Delta.
- **Emergency preparedness:** The package should include directives for planning and project implementation that reduces risks to population, property, and water supply reliability. This should include the development of an effective, comprehensive, and long-term emergency preparedness strategy and adequate emergency response plan.
- **Delta Governance:** The package should establish an entity to oversee governance of Delta issues and implementation of a Delta Sustainability Plan designed to address the co-equal goals of ecosystem restoration and water supply reliability.

MAYOR'S OFFICE OF LEGISLATIVE AND INTERGOVERNMENTAL RELATIONS
1400 K STREET, ROOM 208 • SACRAMENTO, CALIFORNIA 95814
PHONE: (916) 321-5500 • FAX: (916) 448-7162

Specifically, the following issues have been identified as either fully supported by the City or as those needing further clarification and refinement.

Prompt Conveyance Solutions:

Co-Equal Goals – More Specific Language to Achieving Water Supply Reliability/Water Conveyance

Both PAB1 (Huffman) and PSB1 (Simitian) state the importance of co-equal goals of water supply reliability and ecosystem restoration. However, the language seems to place a greater emphasis on ecosystem restoration, as it identifies specific characteristics and strategies to achieve a healthy Delta estuary ecosystem, but none for water supply reliability. We feel that the treatment of the goal of water supply reliability needs to be elevated to the same level and made more specific.

New Statewide Policy Regarding Conveyance:

Also of concern is the statement that "*the policy of the State of California is to reduce dependence on water from the Delta watershed, over the long-term, for statewide water supply reliability.*" The City has been committed to conservation since the early 1990s and has recently committed itself to pursuing an additional 50,000 acre-feet per year (AFY) of conservation and an additional 50,000 AFY of recycled water which will certainly reduce future additional reliance on the Delta. While the City will continue with its efforts to pursue and invest in non-Delta water supplies, we cannot at this time commit to reducing our reliance on Delta supplies below current levels.

Water Supply Reliability – Approval and Implementation of Alternative Conveyance

We support the development of a comprehensive Delta Plan that incorporates the Bay Delta Conservation Plan (BDCP). However, the conditions for the BDCP's inclusion in the Delta Plan must not be onerous and redundant. The BDCP will already be subject to a comprehensive review process, will require numerous approvals, and has the involvement of multiple regulatory agencies that are responsible for compliance with several regulations including the California and Federal endangered species statutes and the California Environmental Quality Act. The City believes that the BDCP process will lead to a solution for the environment and water agencies.

It is very important to ensure that the BDCP process continues moving forward and that the Delta package supports, rather than hinders this process.

Environmental Stewardship

PAB2 (Feuer) – Water Use Efficiency - Support as Written

The City has been at the forefront of water conservation efforts since the drought of the early 1990s. PAB 2 establishes the framework by which urban water agencies will set water

use efficiency targets and be held accountable for achieving those targets, while providing recognition of early investments made in the areas of conservation and water recycling. The City is committed to helping the State achieve its water conservation goals. However, in light of significant water supply shortages, the City recognizes that it must do more. Accordingly, the City's Water Supply Action Plan, adopted May 2008, commits the City to developing 100,000 AFY of new water supply through a combination of water conservation and water recycling. Additionally, the LADWP has already implemented mandatory water conservation ordinances, including active enforcement of prohibited water uses and mandatory water rationing.

It is very important that any water conservation bill **recognize the significant investments made by water agencies in water conservation**. If this is not done, it would place those agencies, such as LADWP, at an unfair disadvantage, as many of the conservation options would no longer be available for implementation.

Delta Conservancy – Creation of New Entity

The City supports the creation of a new Delta Conservancy. The framework for the Conservancy should position it to be both strong and agile, with the ability to coordinate the types of habitat restoration that the export permits will rely on. To allow the Conservancy to operate more efficiently and effectively, it is suggested that the limitations on the Conservancy's ability to acquire and manage Delta lands be deleted.

Emergency Preparedness

The Delta Package adequately addresses emergency preparedness actions, including risks to population, water supply reliability and property.

Delta Governance

Beneficiaries Pay Principle – Clearly State How the Allocation of Costs are Defined

PSB1 (Simitian) defines terms for the "beneficiary pays principle." In general, we support the beneficiaries pay principle, but request that sufficient parameters be put around any fee structure that results from its implementation. Water agencies, including the LADWP, have stated that we are willing to pay our fair share for the construction of conveyance facilities and associated mitigation; however, any process resulting in fees beyond the City's fair share will not be acceptable.

There are numerous beneficiaries in addition to water agencies. All beneficiaries of a Delta solution should be identified and share in the cost.

Watermaster – Creation of New Authority

Current language in PSB 1 would empower a single individual with unprecedented powers and authorities, ranging from water rights regulation to Public Trust enforcement and

beyond. The authority given the Watermaster appears to reach further than the issues that the Delta Package seeks to address. Perhaps a more limited role, such as identifying and addressing day-to-day conflicts between the State Water Project/Central Valley Project and the Delta's ecosystem, would be more appropriate.

Thank you for the opportunity to provide comments on the Delta Package. The City looks forward to providing additional input or to provide any assistance needed as this legislation develops over the coming weeks. If you require additional or more specific information regarding any of the issues discussed, please do not hesitate to contact our office of Legislative and Intergovernmental Relations in Sacramento at (916)321-5500. Thank you for your leadership and commitment to California's water supply future.

Sincerely,

Jim DeBoo
Chief Legislative Representative
Office of Mayor Antonio R. Villaraigosa
City of Los Angeles

cc: Senator Joe Simitian
Senator Fran Pavley
Senator Lois Wolk
Assembly Member Mike Feuer

REPORT FROM

OFFICE OF PUBLIC ACCOUNTABILITY

Date: May 7, 2014 Council File No. 14-0121

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

From: Frederick H. Pickel, Ph.D., Executive Director/Ratepayer Advocate
Grant E. Hoag, P.E., Utility Rate and Policy Specialist

Subject: Bay Delta Conservation Plan and California State Water Bond Costs to City of Los Angeles Ratepayers (revised)

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

	Household Cost ($ per month)		
Program Description	**Best**	**Expected**	**Worst**
DWP Conveyance Estimate		*$2.04*	
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 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, while PFM Group has a 40% higher debt service;
- 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.

Table 2
Potential Household Cost of a State Water Bond

	Household Cost ($ per month, a)		
Program Description	**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.

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 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 $0.08 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 Delta 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

Revised: May 7, 2014

cc: The Honorable Los Angeles City Council
The Honorable Eric Garcetti, Mayor
The Board of Water and Power Commissioners
Marcie Edwards, General Manager, Department of Water and Power
Gerry F. Miller, Chief Legislative Analyst
Miguel Santana, Chief Administrative Officer
Enrique Zaldivar, General Manager, Department of Public Works, Bureau of Sanitation
Holly L. Wolcott, Interim City Clerk
James McDaniel, Assistant General Manager, Water System, Department of Water and Power

Los Angeles Department of Water & Power

ERIC GARCETTI
Mayor

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BARBARA E. MOSCHOS, *Secretary*

RONALD O. NICHOLS
General Manager

January 7, 2014

Mr. Ted Bardacke, Deputy Director
Office of the Mayor
200 North Spring Street, Room 303
Los Angeles, California 90012

Dear Mr. Bardacke:

Subject: Bay Delta Conservation Plan (BDCP) Cost Impacts on Los Angeles Department of Water and Power (LADWP) Water Ratepayers

As follow-up to our BDCP briefing December 18, 2013, I am enclosing a copy of our analysis of estimated cost impacts associated with the construction of the proposed BDCP project on a typical LADWP single-family residential water ratepayer.

Based on the assumptions and calculations outlined in the enclosed analysis, the estimated billing unit cost increase is $0.17 per hundred cubic-feet (HCF). For a typical single-family customer using 12 HCF per month, the estimated monthly cost increase from the BDCP project would be $2.04 per month on their water bill.

These cost estimates are subject to change due to many factors: revised construction cost estimates, cost share between federal and state water contractors, Metropolitan Water District of Southern California (MWD) and LADWP water sales, LADWP purchases from MWD, and debt services financing.

However, regardless of these factors, cost impacts on LADWP water ratepayers from BDCP will be on the order of a few dollars, and as LADWP develops local supplies and purchases less water from MWD, LADWP's water ratepayers' share of BDCP costs will decrease.

If you have any further questions or require additional information, please contact Mr. David R. Pettijohn, Director of Water Resources, at (213) 367-0899.

Sincerely,

James B. McDaniel
Senior Assistant General Manager – Water System

DK:yrg
Enclosure
c: Mr. David R. Pettijohn

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WHITE PAPER
ON
BAY DELTA CONSERVATION PLAN (BDCP)
COST IMPACTS ON LADWP WATER RATEPAYERS

January 2014

This paper provides an economic analysis of estimated cost impacts associated with construction of the proposed BDCP tunnel conveyance project on a typical LADWP single family residential customer's water bill.

Background

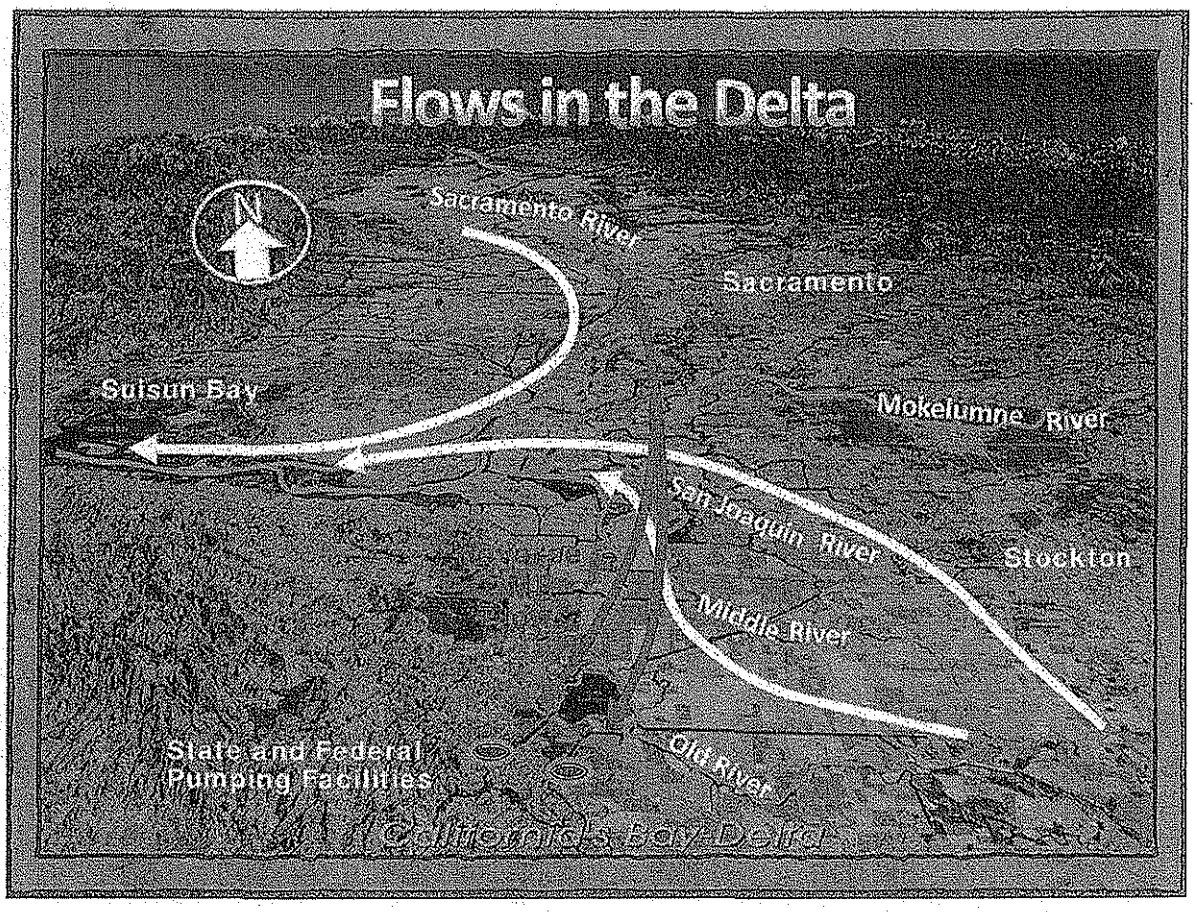
The Sacramento-San Joaquin River Delta (Delta) serves as a critical link in the state's water delivery system, and is also a very important ecosystem for hundreds of fish and wildlife species, many of which are unique to the Delta region. A number of these Delta species are threatened or endangered. Water that moves through the Delta is delivered to 25 million Californians throughout the San Francisco Bay Area, the Central Valley, and Southern California. In addition to these urban economies, this water infrastructure supports California's $30 billion agricultural industry, which produces much of the nation's domestically grown produce. The Delta and its waterways also provide transportation corridors, support extensive infrastructure, and offer recreational opportunities, including fishing, boating, birding, and hunting.

About half of California's annual natural stream flows pass through the Delta. Over the past 150 years the natural flows in the Delta have been irrevocably altered by a system of man-made levees, reservoirs, dredged waterways, and the operations of the State Water Project (SWP) and the Central Valley Project (CVP). The Delta conveyance system as currently designed and operated is not sustainable from either an environmental, operational, or economic perspective. There is urgent need to improve the conditions for threatened and endangered fish species in the Delta, and to improve the conveyance system to meet demands and address risks to water supply reliability, water quality, and the aquatic ecosystem.

The proposed BDCP is a comprehensive habitat conservation plan that intends to address the critical issues in the Delta using an ecosystem-based approach. The plan would help to restore fish and wildlife species in the Delta and to improve reliability of water supplies, while minimizing impacts on Delta communities and farms.

The BDCP Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) was prepared in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The BDCP EIR/EIS public review draft documents have been released by the State and public comments are due by April 14, 2014. The Draft EIR/EIS is intended to analyze and disclose the potential impacts on the environment from the proposed action and alternatives. The Draft EIR/EIS considers 15 action alternatives, including the proposed BDCP, and one no-action alternative. The alternatives analyzed in the draft EIR/EIS include a combination of water conveyance configurations, capacities and operational criteria; conservation measures that include habitat restoration and conservation targets and environmental stressor reduction measures; and various impact avoidance and minimization measures.

The existing operation of the SWP/CVP pumps in the southern Delta can cause or increase a reversal in river flows, potentially altering salmon migratory patterns and can contribute to the decline of sensitive fish species such as the delta smelt.

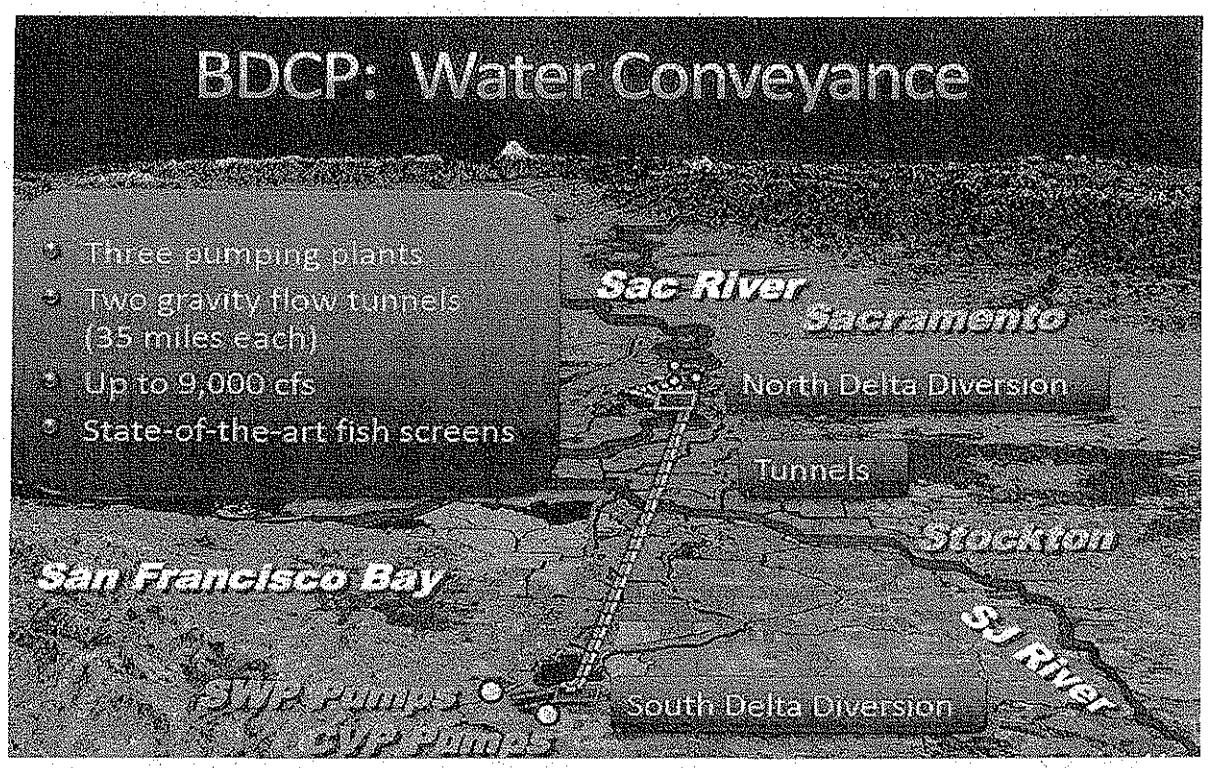


The proposed project's preferred alternative would make substantive changes to water operations in the Delta by implementing a dual-conveyance system to serve the existing SWP /CVP pumping plants. The preferred alternative's dual-conveyance system would be comprised of two major components:

1. Construction of new water facilities, including:
   - Three proposed north Delta intakes with state-of-the-art fish screens
   - Two 30-mile long main tunnels
   - New 40-acre intermediate forebay
   - New Head of Old River operable gate
   - Improvements and expansion of Clifton Court Forebay

2. Operation of both new and existing water conveyance facilities, including:
   - North Delta intakes
   - South Delta export facilities
   - Delta Cross Channel gates
   - Suisun Marsh salinity control gates
   - North Bay Aqueduct intake
   - Clifton Court Forebay

The purpose is to construct and operate a facility that improves conditions for covered species and natural communities in the Delta while improving water supply reliability. By relocating the main point of water diversion from the south Delta to the Sacramento River, and by establishing new operating criteria to improve water volume, timing, turbidity, and salinity, along with other conservation measures, the BDCP would improve native fish migratory patterns and habitat conditions and allow for greater operational flexibility.



The proposed BDCP project includes three new intakes along the Sacramento River in the north Delta and two underground main tunnels approximately 30 miles long under the Delta to carry water to the CVP and SWP pumping plants. A forebay would be needed near the intakes to collect water diverted from the river from which gravity flow would move the water through the tunnels. The twin tunnels would be capable of moving a maximum of 9,000 cubic feet per second (cfs). The gravity-flow system requires two 40 foot-diameter tunnels to convey the needed flows and overcome friction losses to keep water moving through the system. The gravity-driven system would eliminate the need for an intermediate pumping plant in the Delta. Using gravity to transport water would save tremendous amounts of energy and reduce greenhouse gas emissions.

Proposed BDCP Conveyance Costs

The December 9, 2013 release of the public draft BDCP and its corresponding draft EIR/EIS triggered a public comment period that will end April 14, 2014. The costs of implementing the proposed project are described in Chapter 8 of the public review draft BDCP documents. The preferred alternative's 9000 cfs conveyance facility's capital and operation/maintenance costs were estimated at $14.58 billion and $1.46 billion over 50-year period in 2012 dollars after adjusting for inflation, for a total estimated cost of approximately $16 billion.

Funding of the conveyance facility's capital and operation/maintenance costs will come from the SWP and CVP water contractors. It is assumed that the water facilities will be owned by the state, and that the costs of constructing, operating and maintaining the facility will be shared by participating SWP and CVP water contractors. SWP and CVP water contractors have not yet fully agreed on a specific allocation of costs for the BDCP. The exact allocation of these costs between SWP and CVP contractors, and within these two projects will be determined at the time permits are issued for BDCP, and will take into account how BDCP benefits are realized within each project.

Proposed Debt Financing Costs

As discussed in Chapter 8 of the draft BDCP document, the SWP and CVP water contractors could issue bonds to finance their respective capital costs for the conveyance facility. One scenario under consideration to finance the BDCP costs identified for the state and federal water contractors is the issuance of a series of four revenue bonds, each with a term of 40 years. The costs would be financed with tax exempt, long term debt as shown in the table below:

Potential Financing Plan with Series of Four Revenue Bonds **Component**	**1st Bond Series**	**2nd Bond Series**	**3rd Bond Series**	**4th Bond Series**
Approximate delivered date	June 1, 2015	June 1, 2017	June 1, 2018	June 1, 2020
Last maturity	2055	2057	2058	2060
Face value	$3,793,000,000	$3,667,000,000	$5,611,000,000	$2,504,000,000
All-in true interest cost	6.135%	6.133%	6.132%	6.134%
Cost of issuance	$2,000,000	$2,000,000	$2,000,000	$2,000,000
Underwriter's discount	$6/bond	$6/bond	$6/bond	$6/bond
Capitalized interest	2 Years	1 Year	2 Years	2 Years

Source: Southern California Water Committee 2012

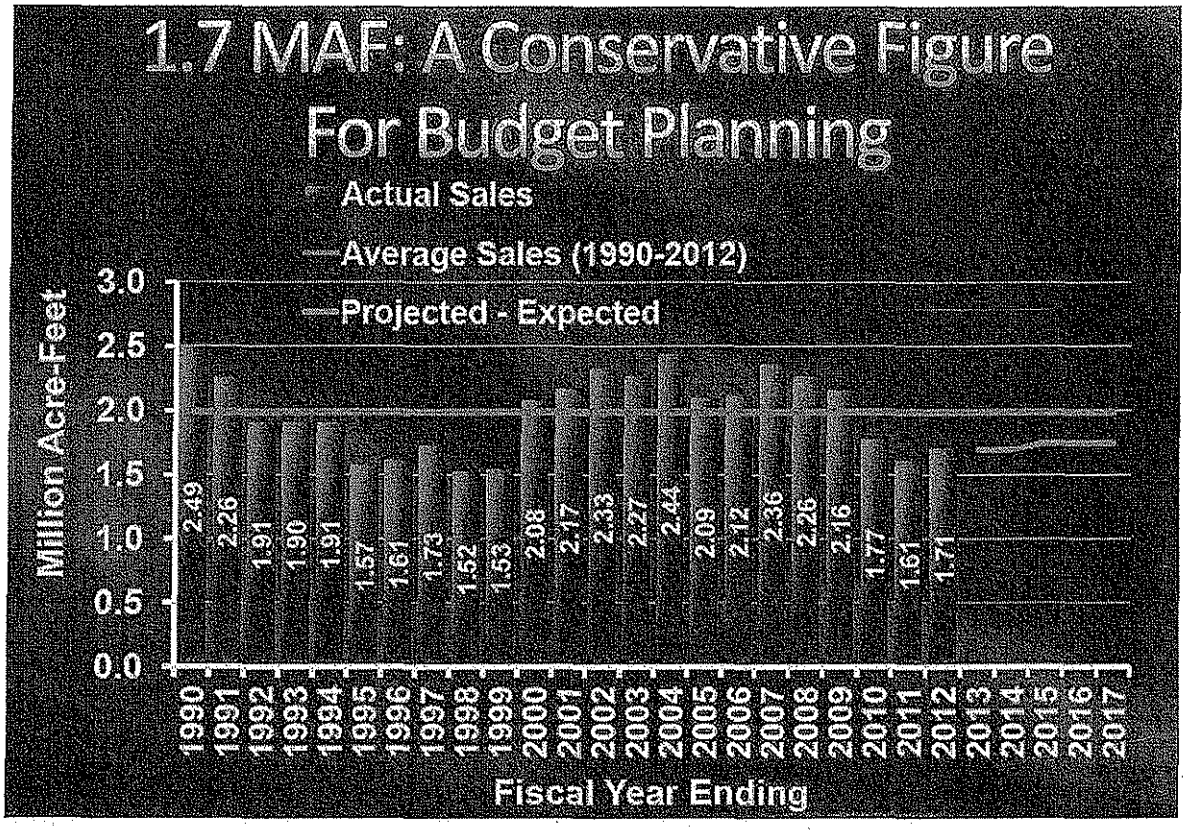
Each bond issue would have a period of capitalized interest to mitigate the debt service during the 9 year construction period. The financing interest rates are assumed at a 95% confidence interval of interest rates over the past decade rather than the historically low interest rates of 2012. The annual debt service would average approximately $1.1 billion from 2021 through 2055.

Metropolitan Water District of Southern California (MWD)

MWD is comprised of 26 member public agencies, including 14 cities, 11 municipal water districts, and one county water authority, which collectively serve the residents and businesses of more than 300 cities and numerous unincorporated communities. MWD's service area comprises approximately 5,200 square miles and includes portions of the six counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura.

One of MWD's two major sources of water supply is the State Water Project. In 1960, MWD signed a contract with the Department of Water Resources (DWR) and is one of 29 agencies that have long-term contracts for water service from DWR, and is the largest agency in terms of the number of people it serves (almost 19 million), the share of State Water Project water that it has contracted to receive (approximately 46 percent), and the percentage of total annual payments made to DWR by agencies with State water contracts (approximately 58 percent for 2011). The State Water Contract, under a 100 percent allocation, provides MWD 1,911,500 acre-feet of water. Water received from the State Water Project by MWD over the ten years from 2002 through 2012 varied from a low of 908,000 acre-feet in calendar year 2009 to a high of 1,800,000 acre-feet in 2004.

The chart below summarizes MWD's annual water sales, in million acre-feet (MAF), to its member agencies between fiscal years ending (FYE) 1990 to 2012. Average sales over this period were about 2.0 MAF. Actual FYE 2012/2013 sales were 1.857 MAF, with five year average at 1.894 MAF. Sales projection for budget planning purposes was established at 1.7 MAF.



BDCP Cost Impact to LADWP Ratepayers

The following assumptions were used in determining the average cost impact to LADWP:

- $1.1 billion annual debt service costs from the BDCP conveyance construction + O&M (reference: 2013 draft BDCP, Chapter 8)
- 50 / 50 cost share between federal and state water project contractors
- MWD's share of the state contractor's cost is about 50 percent, or about $270 million / year.
- LADWP's share of MWD's water sales, average year hydrology, is about 15 percent.
- Assume 15 percent cost share for LADWP of MWD's BDCP costs, or 15 percent of $270 million per year = $40.5 million per year.
- LADWP would collect revenue to cover this cost through its retail water sales. Retail water sales are projected to average 240 million Hundred Cubic Feet (HCF).
- For an LADWP customer 1 HCF = 1 billing unit.
- Spreading LADWP's cost share of $40.5 million over LADWP's 240 million HCF in sales, yields a billing unit cost increase of $0.17 per HCF.

Based on the above assumptions and calculations, the estimated billing unit cost increase is about $0.17 per HCF. For a typical single family customer using 12 HCF per month, the estimated monthly cost increase from the BDCP would be about $2.04/month.

(If MWD's share of the debt service climbed to $350 million / year, the estimated cost impact to LADWP would be about $52 million / year. Based also on 240 million HCF sales, the unit cost increase is then estimated to be about $0.22 / HCF. For the same typical single family customer using 12 HCF, the estimated cost impact would grow to $2.64 / month.)

The above cost estimates are subject to change due to many factors: revised construction cost estimates, cost share between federal and state, MWD and LADWP water sales, LADWP purchases from MWD, and debt services financing. However, regardless of these factors the cost impacts on LADWP water rate payers from the BDCP will be on the order of a few dollars, and as LADWP develops local supplies and purchases less water from MWD the city's water rate payers share of BDCP costs will decrease.