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Testimony
Before the Subcommittee on Water, Power, and Oceans
Committee on Natural Resources
United States House of Representatives

The 2016 California Water Supply Outlook During the El Nino And Three Years of Restricted Water Deliveries

February 24, 2016

Mr. Chairman and Members of the Subcommittee, my name is Thomas W. Birmingham, and I am the General Manager of Westlands Water District ("Westlands" or "District"). Thank you for the opportunity to appear before you today to testify on one of the most, perhaps the most, important resource issue facing the State of California, its broken water supply infrastructure.

Westlands is a California water district that serves irrigation water to an area of approximately 600,000 acres on the west side of the San Joaquin Valley in Fresno and Kings counties. The District averages 15 miles in width and is 70 miles long. Historically, the demand for irrigation water in Westlands was 1.4 million acre-feet per year, and that demand has been satisfied through the use of groundwater, water made available to the District from the Central Valley Project under contracts with the United States for the delivery of 1.19 million acre-feet, and annual transfers of water from other water agencies.

Westlands is one of the most fertile, productive and diversified farming regions in the nation. Rich soil, a good climate, and innovative farm management have helped make the area served by Westlands one of the most productive farming areas in the San Joaquin Valley and the nation. Westlands farmers produce over 50 commercial fiber and food crops sold for the fresh, dry, and canned or frozen food markets; domestic and export. These crops have a value in excess of $1 billion.

In April 2011, I testified at a field hearing of the Subcommittee in Fresno, California. At the time I observed that it was ironic that the Subcommittee was in Fresno to hear about drought and the impact of drought on jobs at a time when California's reservoirs were full and rivers, streams, and flood control by-passes were running high. In the years subsequent to 2011, hydrologic conditions in California were dramatically different; in the four years after 2011, California experienced a prolonged drought. However, the wet hydrologic conditions in 2011 and the four subsequent years of drought were not an anomaly. Floods and drought, the continual alteration between these two extremes, is part of the natural cycle of life in California. And California's water supply systems were designed to help the state withstand the impacts of extended drought.

Indeed, the "firm yield" of the Central Valley Project was historically defined as the measure of the availability of water to meet authorized purposes of the Central Valley Project based on the assumed operations of the Project throughout the simulation of the critically dry 1928-34 period, the most severe drought in California's recorded history. Bureau of Reclamation ("Reclamation") decisions concerning the quantities of water that would be made available under water service contracts were based on this measure.

Prior to the enactment and implementation of the Central Valley Project Improvement Act and the application of the Endangered Species Act to the operations of the Central Valley Project, Reclamation's estimate of the availability

of water to meet authorized project purposes during extended drought was reasonably accurate. This is reflected by allocations to south-of-Delta Central Valley agricultural water service contractors during the 1987 – 1992 drought. During the six years of that extended drought allocations were 100%, 100%; 100%; 50%, 25%, and 25%.

Allocations to south-of-Delta Central Valley agricultural water service contractors during the 2012 – 2015 drought demonstrate the degree to which restrictions imposed on operations of the Project have reduced its deliver capability. However, to put the 2012 – 2015 drought into perspective, it must be noted that 2010 and 2011, the two hydrologic years preceding this most recent drought, were above average and significantly wet, respectively. Notwithstanding these wet conditions in 2010 and 2011, the allocation to south-of-Delta Central Valley agricultural water service contractors in 2012, the first year of drought, was only 40%. In 2013, 2014, and 2015 the allocations were 20%, 0%, and 0%, respectively. Moreover, in 2014 and 2015, north-of-Delta agricultural water service contractors and Friant Division Class I contractors also received zero allocations. For the first time in the history of the Central Valley Project, releases had to be made from Millerton Reservoir on the San Joaquin River to meet the United States' obligation to the San Joaquin River Exchange Contractors, and Reclamation was unable to meet its core obligations to Sacramento River settlement contractors and refuges. Stated differently, in the third year of a drought, a drought which was not significantly more severe than prior extended droughts, the Central Valley Project was incapable of meetings even its most basic obligations.

As anticipated, 2016 is an El Nino year and the hydrologic conditions have improved dramatically. According to the California Department of Water Resources' February 1, 2016 manual snow survey, rainfall and the Sierra Nevada snowpack's water content are both markedly improved this water year, and storage in the state's major reservoirs also has increased significantly since January 1. Rainfall in the three regions (northern Sierra Nevada, central Sierra Nevada, and southern Sierra Nevada) tracked by DWR was 123 percent of the historical average between October 1 and January 31. In addition, the water content of the northern Sierra Nevada snowpack was 120 percent of average for the date.

The dramatic improvement of storage in Folsom Reservoir, a Central Valley Project reservoir that has received wide-spread media attention during the drought, is shown in the graph prepared by the California Department of Water Resources attached hereto as Exhibit 1. In fact, storage conditions have improved to the point that on or about February 10, 2016, Reclamation significantly increased releases from Folsom Dam to comply with flood control criteria established for the reservoir.

However, despite improved hydrologic conditions, the outlook for water supplies from the Central Valley Project has not significantly improved. Westlands currently forecasts that the initial allocation for south-of-Delta Central Valley Project agricultural water service contractor will, for the third consecutive year, be zero, and the allocation is likely to remain at zero. In addition, I am informed that Reclamation has informed the San Joaquin River Exchange Contractors and Friant Division contractors that it is likely releases from Millerton Reservoir will, for the third consecutive year, have to be made to satisfy the United States' obligation to the Exchange Contractors. And despite flood control releases having to be made from Folsom Dam, pumping in the Delta has been reduced.

Reclamation's current inability to make water available to large areas of the Central Valley Project despite improved hydrology is a function primarily of constrains imposed on Project operations under the 2008 biological opinion for the protection of Delta smelt. This fact is illustrated dramatically by the graph attached hereto as Exhibit 2, which depicts Delta inflow and rates of pumping at the Central Valley Project and State Water Project southern Delta pumping plants from December 1, 2015, through February 7, 2016. The red curve on Exhibit 2 indicates the rates of pumping permitted under Water Rights Decision 1641, the California state water rights decision that established operational criteria intended to protect fish and wildlife resources in the Delta. As depicted in Exhibit 2, in early January 2016, when the El Nino rains began to produce increased inflow into the Delta, rates of project pumping were decreased, rather than increased as permitted under D-1641. The decreased rates of project pumping were implemented to comply with the reasonable and prudent alternative established by the Delta smelt biological opinion, and between January 5 and February 7, the Central Valley Project and the California State Water Project lost a combined 397,000 acre-feet.

Losses of water resulting from the Delta smelt biological opinion have continued to accumulate, and it is presently estimated that the losses exceed 500,000 acre-feet. The irony, some might say absurdity, of Central Valley Project operations in this El Nino year is demonstrated by a comparison of cumulative Delta pumping by the Central Valley Project for the period from October 1 through February 7 for the 2015 and the 2016 water years. Despite dramatically improved hydrologic conditions in 2016, the Central Valley Project has pumped significantly less water this year, more than 200,000 acre-feet less, compared to the same period of the 2015 water year.

I hope my testimony has made it clear that there is a complete disconnect between hydrology and Central Valley Project water supply under the 2008 Delta smelt biological opinion. Since the beginning of December 2015, two Delta smelt have been observed at the fish recovery facilities operated at the Central Valley Project and California State Water Project pumping plants. (These two observed fish are expanded to eight for purposes of the incidental take level established under the Delta smelt biological opinion.) But for reasons beyond explanation by

me, Reclamation and the Fish and Wildlife Service have adopted very conservative decisions concerning compliance with the biological opinion's reasonable and prudent alternative.

It is beyond reasonable dispute that the continued, prolonged water supply shortages being suffered in the San Joaquin Valley are the result of policy choices made by the federal government, not by hydrologic conditions. As a consequence, it is unlikely that the current El Nino conditions will produce any water supply benefits.

I would welcome any questions from members of the Subcommittee.

Exhibit 1

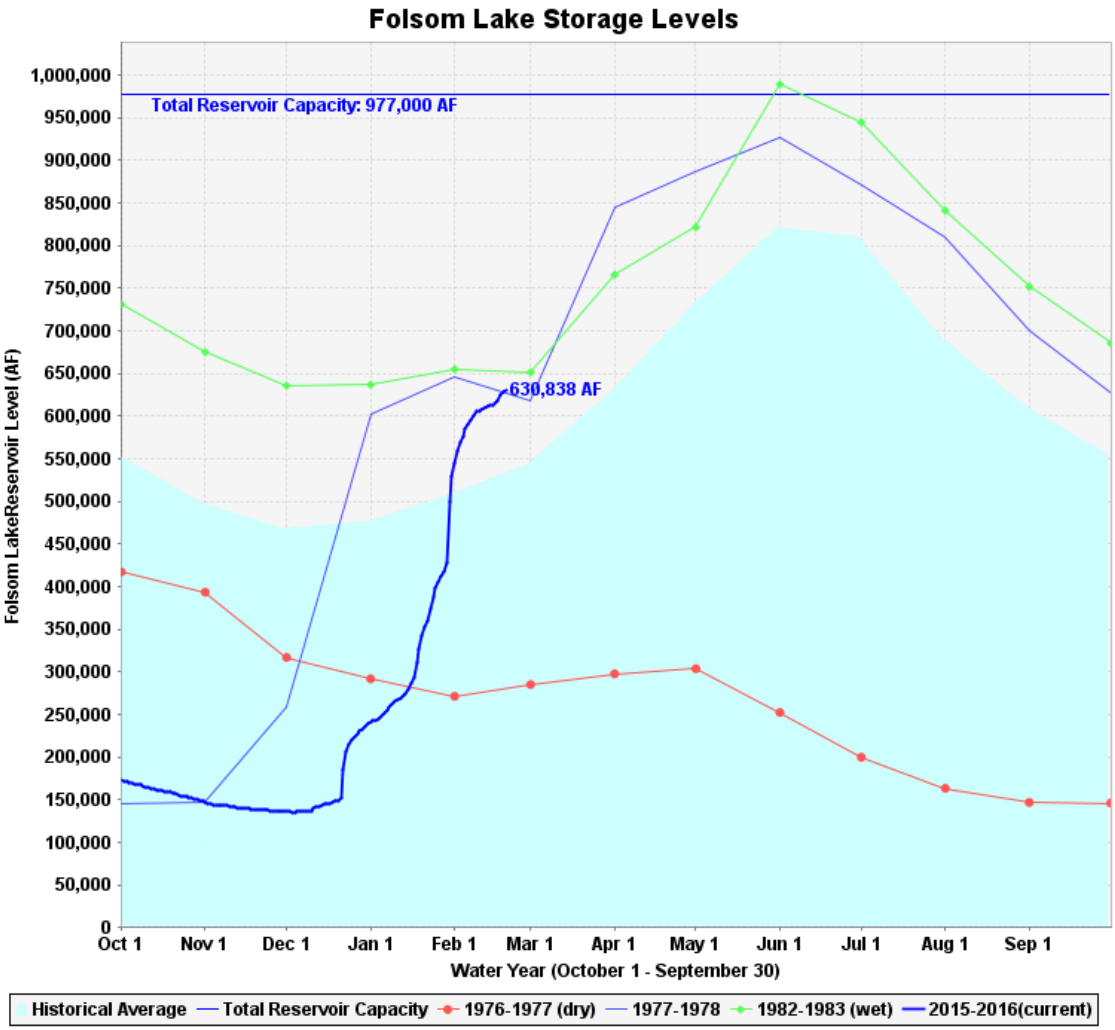
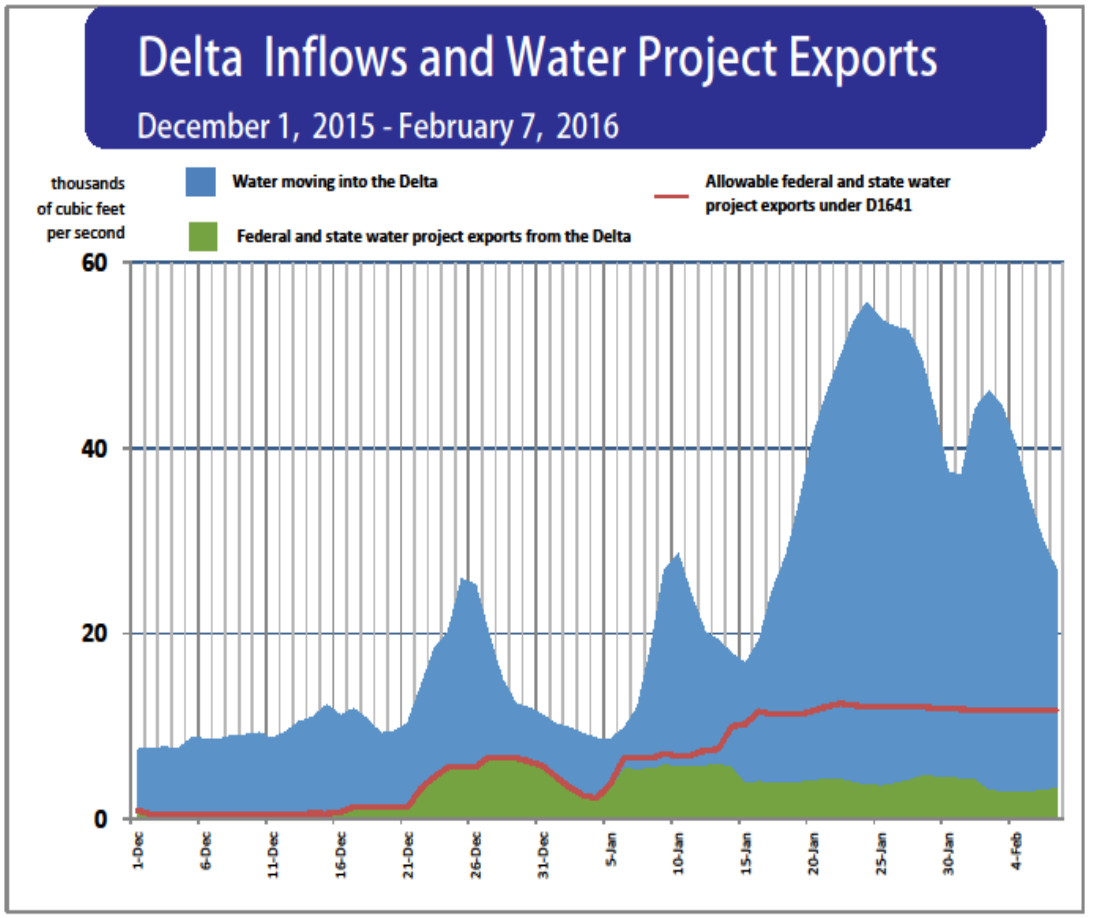


Exhibit 2



T. Boardman, SLDMWA
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