

CR 10 Bulletin 160 numbers are inappropriate for use in your analysis.

Many comments expressed concern about using water use and water conservation numbers from the Department of Water Resources' Bulletin 160-98 "California Water Plan" update. Most comments indicated that CALFED should not have used the Bulletin 160 data for baseline computations or projected water savings estimates.

The Water Use Efficiency Program Plan and Attachment A of the June 1999 Draft Programmatic EIS/EIR explain the role that water use efficiency numbers developed by DWR played in CALFED's program plan. Although the Bulletin 160 series estimates provide a framework, these were not the only set of data used by CALFED agencies in preparing its Water Use Efficiency estimates. (Chapter 7 of the Water Use Efficiency Program Plan lists the references used in developing that program plan.) Consequently, the water use efficiency numbers in the program plan and in Bulletin 160-98 are not the same. For example, according to DWR, other options such as resolving the Colorado River water supply controversy and CALFED Program solutions would provide more water in the South Coast Region at less cost than additional levels of water recycling. As a result, only about 30 percent of the planned recycling potential was assumed to be implemented as part of Bulletin 160-98. However, the CALFED Program's No Action Alternative conditions do **not** include a CALFED Program solution and do not make an assumption on how the Colorado River use issue would be resolved.

In light of the recent agreement regarding the Colorado River and other concerns, there still is a need to continue refining estimates of water use and potential for reduction in water use. As stated in the Water Use Efficiency Program Plan, "Conservation estimates will be further refined before the CALFED [draft] Programmatic EIS/EIR is finalized. Stakeholders disagree on the magnitude of forecasted conservation estimates and the feasibility of achieving forecasted levels of conservation. Therefore, forecasts will be refined prior to the Record of Decision (ROD)."

The No Action Alternative significantly underestimates water conservation, due in part to its reliance on Bulletin 160-98. Estimates of agricultural water conservation potential were derived by taking DWR's "normalized" 1995 data for applied water, depletion, and crop evapotranspiration for numerous regions throughout the state. The Program estimates of water conservation potential were not based entirely on Bulletin 160-98. The Program used a variety of methods to estimate conservation potential that were based on data from several sources. Estimates of agricultural water conservation potential were derived by taking DWR's normalized 1995 data for applied water, depletion, and crop evapotranspiration for numerous regions throughout the state. These data were used to calculate losses and conservable water using various documented assumptions. A more explicit description of the methodology is available in the Water Use Efficiency Program Plan Appendix. Conditions are "normalized" to a certain level of development (in this case, 1995) and adjusted to remove unusual conditions affecting water supply and demand to facilitate identification of long-term trends.

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Urban conservation was calculated differently for each of the following types: indoor residential; urban landscaping; commercial, industrial, and institutional; and distribution system loss. For example, the No Action Alternative indoor residential conservation potential was estimated by assuming a baseline indoor per capita use of 65 gallons per capita per day (gpcd) and reducing this amount by 5 gpcd. More detailed information regarding the methods used to calculate conservation potential is available in the Water Use Efficiency Program Plan Appendix.

The Program erroneously overestimates water conservation potential compared to the amounts depicted in Bulletin 160-98, the state's official water planning document. The Program's estimates of water conservation potential are split into two increments: (1) expected savings to occur under the No Action Alternative, and (2) a Program conservation increment above the No Action Alternative level.

For comparison, the urban estimates are closely related to Bulletin 160-98's assumed options. The Bulletin 160-98 options represent measures expected to be implemented in order to help offset future supply shortages. The options are assumed by the Program to occur regardless of a Bay-Delta solution. Furthermore, the Bulletin 160-98 2020 baseline conditions provide a conservative estimate of changes that will occur over the next 20 years. DWR uses a conservative estimate to ensure that overly optimistic assumptions do not mislead planning purposes. The Program assumptions, on the other hand, are an attempt to understand at a programmatic level: (1) the potential beneficial and adverse impacts that may result from a Program solution, and (2) the potential role of the Program in achieving increased implementation of conservation measures. Thus, the Program assumes a more optimistic view of conservation that expects water users and water agencies, absent a Program solution, to implement most of the Bulletin 160-98 listed options.

Bulletin 160-98 overestimates water demand. The Program's reliance on these demands results in an overstatement of the need for export of Bay-Delta supplies.

There has been considerable debate over the methodologies employed by DWR in estimating water demands for Bulletin 160-98. DWR has taken steps to address these concerns and validate the Bulletin 160-98 estimates. One component of the supplies available to meet current and future demands are Bay-Delta supplies delivered by the CVP and SWP systems. Other sources of supplies include imports from other sources, local water supplies, water conservation and recycling, and water transfers. Bulletin 160-98 included the assumption that by 2020, full contractual entitlement to CVP and SWP would be requested by CVP and SWP contractors. This means that in years when enough water is available and all Bay-Delta standards are met, full contractual amounts of CVP and SWP water would be delivered. This maximum annual delivery would be about 600,000 acre-feet higher than under existing conditions. In most years, less than full contractual amounts would be delivered.

A reduction in demand for future water supplies would mean less need for water from all available sources in wetter years when supplies are plentiful. In this case, it is problematic to predict which source of water would be reduced if multiple sources were available. For example,

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if more water was available than needed in any given year in the service area of MWDSC, would MWDSC managers choose to reduce SWP deliveries (if available) or some other supply source such as Colorado River deliveries? Many factors would need to be considered, such as the water quality of various sources, treatment needs, or possible agreements to refrain from use of specific sources of supply. Given these issues, a reduction in demand in the MWDSC service area, an area with multiple sources of supply, would not necessarily result in a direct reduction in demand for Bay-Delta supplies.

In drier years, demands would most likely not be fully met. In this case, the system would be supply constrained, and the level of demand would make little difference in the need for supplies from all available sources. The most intensive resource conflicts in the Bay-Delta system occur during these drier years.

To deal with uncertainty in future statewide demands for water and the resulting uncertainty in future demands for Bay-Delta supplies and fully describe potential consequences of program actions, the Program formulated two distinct bookend water management criteria assumption sets. These two sets of assumptions, referred to as Criteria A and B, serve as boundaries for a range of possible Delta inflow, export, and outflow patterns in this programmatic analysis. Under Criterion A, maximum demands for Bay-Delta water supplies through the CVP and SWP systems are held at existing levels. Under Criterion B, maximum demands for Bay-Delta supplies through the CVP and SWP systems are assumed to increase to full contractual entitlement, or about 600,000 acre-feet more than existing levels. All Program alternatives were evaluated under both of these water management criteria.