

4.2 WATER RESOURCES

4.2.1 PROPOSED ACTION ALTERNATIVE

The Proposed Action would not result in any significant impacts to water quality on any surface water body including local streams, rivers, lakes, or bays. In fact, the Proposed Action would reduce the quantity of drainage water currently being discharged from the BWD to the San Joaquin River by approximately 2,600 acre-feet or 70 percent of water per year (Summers Engineering, 2003). More specifically, by following the BWD lands and not applying CVP water for irrigation, the estimated reduction in drain water discharge from existing conditions (approximately 3,700 afy), will be reduced by approximately 1,100 afy. Most of these resulting flows are likely attributable to sub-surface flows originating from up-gradient locations to the south and west. More importantly, within this reduction of approximately 2,600 afy, it is estimated that there will be substantial reductions in the quantities of salts, selenium, and boron discharged to the San Joaquin River. Using the existing conditions of approximately 6.57 tons of salt, 0.58 pounds of selenium, and 20 pounds of boron per acre-foot of discharged water from BWD to the San Joaquin River, the Proposed Action would result in the elimination of approximately 17,000 tons of salt, 1,500 pounds of selenium, and 52,000 pounds of boron to the San Joaquin River each year. As the San Joaquin River is listed as an impaired water body and is on the 303(d) list for boron, selenium and electrical conductivity, these reductions provide a desirable benefit to the San Joaquin River. These benefits are summarized in Table 4-1 below.

**TABLE 4-1
DRAINAGE AND WATER QUALITY EFFECTS OF PROPOSED ACTION ON THE
SAN JOAQUIN RIVER**

	Existing Conditions	Under Proposed Action Conditions	Estimated Reduction Attributable to Proposed Action
BWD Drainage to San Joaquin River (afy)	3,700	1,100	2,600
BWD Estimated Salt Production (tons/yr)	24,300	7,300	17,000
BWD Estimated Selenium Production (lbs/yr)	2,140	640	1,500
BWD Estimated Boron Production (lbs/yr)	74,000	22,000	52,000

Source: Summers Engineering, 2003

The Proposed Action would not entail any new development and therefore, no net increase in impervious surfaces is anticipated to occur. The Proposed Action would also involve a net reduction in irrigation water (approximately 16,200 afy) applied to the site. The Proposed Action would not involve the construction of any new facilities that would be prone to flooding, placed within a 100-year flood zone, or impede or redirect flood flows. Consequently, implementation of the Proposed Action would have no significant impacts on existing hydrologic hazards,