

CHAPTER 3

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Affected Environment and Environmental Consequences in this 2004 Supplemental EA presents only those sections that have updated information, additional discussions, or table changes from the 2002, 2001 and 2000 Final Supplemental EAs. The Proposed Action alternative is comparable to Alternative 1, continuation of existing interim contracts, analyzed in the 2000 Supplemental EA.

As described in Chapters 1 and 2, this 2004 Supplemental EA includes 17 interim renewal contracts that were not included in the previous IRC environmental assessments. The contract water amount for each of these 17 interim renewal contractors is shown on Table 1. These 17 contractors are located inside the same geographical area analyzed in the original IRC Environmental Assessment (Reclamation 1994) and in the subsequent Supplemental IRC Environmental Assessments (Reclamation 1998, 2000, 2001, 2002). Location maps for the 17 water service contractors are presented in Appendix D.

The existing affected environment conditions are essentially the same as those described in the initial 1994 EA and subsequent Supplemental EAs. Consistent with existing CVP and CVPIA biological opinions, Reclamation implemented a Central Valley Habitat Monitoring Program (CVHMP) in 1999 to map and monitor habitat inside CVP water service areas. The CVHMP uses satellite imagery and aerial photography to identify natural habitats and monitor habitat changes that may be occurring inside CVP water service areas. The CVHMP database benchmark year is 1993, and that 1993 data reflects land-use and habitat conditions described in the affected environment sections of the 1994 EA (Reclamation 1994). Comparisons of the 1993 benchmark-year to the most recent available satellite imagery (2000) show that habitat conditions inside the IRC water service areas have changed very little since the first IRC environmental analysis in 1994, which further supports conclusions presented in the 2002, 2001, and 2000 Supplemental IRC Environmental Assessments. Summaries of land-use and habitat changes inside each IRC service area since 1993 are presented in Appendix E.

3.3 BIOLOGICAL RESOURCES

3.3.1 Proposed Action Alternative

The fifth paragraph from the 2001 Supplemental IRC Environmental Assessment is revised as follows:

CVP-wide impacts to biological resources have been evaluated in the PEIS, and a FWS Biological Opinion to address potential CVP-wide impacts was completed on November 21, 2000. Cross Valley Canal (CVC) Unit Contractors' potential impacts to biological resources have been evaluated in the CVC Unit Contractors Long-Term Contract Renewal Environmental Assessment (January 2001), the CVC Unit Contractors Long-Term Contract Renewal Regional Biological Assessment (January 17, 2001), the Biological Opinion on U.S. Bureau of Reclamation Long Term Contract Renewal of Friant Division and CVC Unit Contracts (FWS-January 19, 2001), and the Biological Opinion for the Long-Term Renewal of CVP Water Service Contracts for the Friant Division and CVC Unit Contractors (NOAA Fisheries -January 20, 2001). The programmatic biological opinion and Essential Fish Habitat Conservation Recommendations prepared by NOAA Fisheries for the CVPIA was completed on November 14, 2000.

The following paragraphs are included at the end of this section:

The FWS Biological Opinion for 2002 interim contracts is incorporated by reference in this 2004 Supplemental EA. The FWS Biological Opinion for these 2004 interim contracts is attached in Appendix H, and presents the commitments that Reclamation will undertake during the proposed 2004 interim renewal period.

Restore City of Shasta Lake contract amount. City of Shasta Lake (City) is currently receiving 2,700 acre-feet/year of CVP water under the existing interim renewal contract, and 50-acre-feet/year from a subcontract with the Shasta County Water Agency, for a total of 2,750 acre-feet/year. The proposed interim contract would renew the City's water service contract for 4,400 acre-feet/year. With out the proposed change in the contract amount, acre-feet/year rather than the 2,750 acre-feet/year described in the existing interim contract. This change would restore the City's contract amount to the same amount (4,400 acre-feet/years) received under the City's original long-term water service contract that expired in 1994. Reclamation believes that this restoration of the City's full contract amount would have no significant or demonstrable effects on the environment for the following reasons:

(1) Although the contract amount is being restored to 4,400 acre-feet/year, the actual use of water within the CVP Service Area will not change significantly from recent usage. Over the last 3 years, the City has utilized the following quantities of water:

2000 - 2615 ac-ft
2001 - 2775 ac-ft
2002 - 2930 ac-ft
2003 - 3000 ac-ft (projected to date)

These figures represent an annual increase in use of about 4 ½ percent. Amounts over the interim contract amount of 2,750 ac-ft have been obtained via transfers of other CVP water. If this proposed change in the contract is not implemented, the City is expected to continue to meet its needs via continued transfers over the next 2 years. Projected use for the next 2 years assuming a continuation of an annual increase of 4 ½ percent would result in the following use of CVP water:

2004 - 3,135 ac-ft
2005 - 3,276 ac-ft

Expressed as a diversion rate, this projected 2005 usage would be about 0.66 cfs greater than the amount allowed under the prior and existing interim contracts.

(2) There likely would be no adverse effect on listed terrestrial species within the City's CVP Service Area because the City's CVP Service Area lacks either designated critical habitat or known occurrences of listed species.

Bald eagles occasionally occur along the shores of Shasta Lake, 2-6 miles north of the City, but the City's CVP Service Area does not provide foraging habitat for bald eagles, so bald eagles are not expected inside the Service Area. There are 43 acres of vernal pools in the southeastern portion of the Service Area, but none are designated by the USFWS as critical vernal pool habitat. No FESA or CESA listed species occur in these vernal pools. Although vernal pools are habitat of concern, and are protected by State and Federal laws concerning wetlands, the presence of vernal pools in the Service Area poses no endangered or threatened species issues.

(3) There would likely be no adverse effects on listed aquatic species.

All diversions occur at Shasta Dam, which is upstream of the first impassable barrier on the Sacramento River. Hence, entrainment of juvenile salmonids is not an issue. Nor would the flows in the Sacramento River be measurably altered by the proposed action because the water involved is only 0.02% of the 3,000 cfs minimum releases from Shasta/Keswick.

Flows in the small, intermittent drainages within the City's CVP Service Area would not be altered by the proposed action, with the probable exception of Newtown Creek, an intermittent tributary of upper Churn Creek. Newtown Creek receives effluent from the waste water treatment plant, but the increment in its flow (<0.66 cfs) would not be large enough to affect the downstream reaches of Churn Creek which might contain steelhead or juvenile Chinook.

From an operational standpoint, the contract amount of 4,400 acre-feet/year represents no demonstrable change in CVP operation because transfers of this magnitude between CVP contractors are a routine part of CVP operations.

(4) The restoration of the City of Shasta Lake's contract amount from 2,750 acre-feet/year to 4,400 acre-feet/year will have no real affect on the City's usage of water. The interim contract's restoration of the original long-term contract quantity will merely allow the City to suspend the series of temporary water transfers it has relied upon in recent years.

(5) This increase in City of Shasta Lake interim contract amount will not affect ongoing regional settlement/development patterns.

The rates of land-use change have been modest in the City's service area during the past ten years. The Central Valley Habitat Monitoring Program's 1993 to 2000 land-cover change data indicates a conversion of 19 acres, or only 0.1% of the land changed from natural vegetation to other uses. Of the 19 acres of the Service Area that changed from natural to urban land cover, 11 acres changed from woodland to urban use, and 8 acres changed from grassland to urban use.