

8 SOCIOECONOMIC ISSUES

Comments received during the public comment period for the NOP sought acknowledgment in the Draft EIR of the social and economic effects of the proposed project on agricultural lands and operations. As provided in law, CEQA analyses focus on the physical effects of a project, not the social or economic effects, unless the social and economic effects lead indirectly to a physical change in the environment (State CEQA Guidelines Section 15064[e]). However, the State CEQA Guidelines allow lead agencies discretion to include socioeconomic information in an EIR (State CEQA Guidelines Section 15131).

CBDA policy supports the purpose of this chapter, which is to provide information about the social and economic changes that may occur as a result of the proposed project, given the expression of interest in these topics from comments on the NOP. None of the social or economic effects would lead to another physical change that would result in a significant effect under CEQA. Nonetheless, this is an important topic to present in this Draft EIR. The discussion further links the socioeconomic considerations evaluated previously as part of the development of the SRCA and in NEPA documents prepared for various projects within the SRNWR. (As described in Chapter 3, “Description of the Proposed Project,” responsibilities of the SRCA Advisory Council include management of agricultural uses along the middle reaches of the Sacramento River.)

The Draft EIR analysis and discussion in Section 4.2, “Agricultural Resources and Land Uses,” results in a conclusion that restoring native riparian habitat at the three project sites would not degrade or eliminate the physical conditions or natural processes that have provided the site’s physical qualities valuable for agricultural use. Enhancement of the riparian corridor with native plant communities that support a more naturally functioning ecosystem would *benefit* soil formation processes, reduce erosion, increase groundwater recharge, and improve water quality, which would likely benefit neighboring agricultural properties over the long term. (See also Section 4.3, “Hydrology, Water Quality, and River Geomorphology.”)

8.1 PROGRAMS AFFECTING AGRICULTURAL LAND USES IN THE STUDY AREA

The proposed project is consistent with and supported by a number of federal, state and local programs that are influencing land uses along the Sacramento River. These programs include:

- ▶ Section 3406(b)(1) of the Central Valley Project Improvement Act, authorizing Reclamation to fund projects that protect fish and wildlife, restore habitat and/or mitigate for habitat loss with a goal being the restoration of anadromous fish populations.
- ▶ CALFED Program, a consortium of federal and state agencies working to restore the ecological health of the Bay-Delta estuary (see Chapter 1, “Introduction,” and Chapter 3, “Description of the Proposed Project”).
- ▶ Comprehensive study on the Sacramento and San Joaquin River basins, a project of USACE and The Reclamation Board that involves integration of ecosystem restoration into plans for an improved flood management system (see Section 4.3, “Hydrology, Water Quality, and River Geomorphology”).
- ▶ USFWS management of the SRNWR in accordance with the USFWS CCP (see Chapter 3, “Description of the Proposed Project,” and Section 4.2, “Agricultural Resources and Land Uses”).
- ▶ SRCA Forum, designed as an outcome of SB 1086 to guide management of riparian habitat and agricultural uses along the Sacramento River (see Chapter 3, “Description of the Proposed Project”).

- ▶ DFG acquisition and management of lands along the Sacramento River for the Sacramento River Wildlife Area (SRWA), including parcels within the study area. The SRWA management goal is to allow river processes to maintain a naturally functioning riparian ecosystem.
- ▶ DPR ownership and management of four properties along the SRCA, including the Bidwell-Sacramento River State Park within the study area.

8.2 AGRICULTURAL LAND USE AND PRODUCTION TRENDS IN THE STUDY AREA

DOC data indicate that while urban development is occurring in Butte and Glenn Counties—the net increase in urban and built-up land between 2000 and 2002 in Butte County was 2,156 acres and in Glenn County it was 342 acres—the rate of increase is relatively slow compared to the change in land use from farmland to *other land uses*. In Butte and Glenn Counties during the same time period, the change in use from farmland to other land uses accounted for 2,836 acres and 3,878 acres, respectively (DOC 2004c).

Farmland loss occurs for many reasons: urbanization, environmental uses (e.g., habitat), idling land for economic reasons, or landowners taking their land out of production and leaving land fallow. Loss of agricultural land resulting from urban encroachment is the most visible change that people react to, yet it was the change from agricultural land to open space uses that occurred with increased frequency between 1994 and 1998 (Kuminoff et al. 2001). Even so, the data indicates that agricultural productivity has increased much faster than the agricultural land base has declined. Furthermore, the study suggests that it is misleading to emphasize lost production resulting from the changes in land uses occurring on specific parcels. It concludes that the size and diversity of California’s agricultural industry facilitates its ability to shift and adapt to changing local conditions (Kuminoff et al. 2001).

The economic losses resulting from changes in agricultural land uses to habitat or open space in agriculturally-dependent counties often is not offset by the economic benefits derived from this shift (Jones & Stokes 2003). Adams and Gallo (2001) note that many of the benefits derived from habitat restoration projects accrue outside the county (e.g., effects on downstream flooding, water quality, fishery quality and recreation).

8.2.1 AGRICULTURAL ECONOMY IN BUTTE AND GLENN COUNTIES AND THE SACRAMENTO RIVER CONSERVATION AREA

The diversity of crops grown in the Sacramento Valley reflects the diversity of soils, climate, and cultural and economic factors. Butte County’s major crops include rice, almonds, prunes, and walnuts. Glenn County’s major crops include rice, almonds, prunes, alfalfa, and corn. Areas in proximity to the Sacramento River mainly support tree crops.

Agriculture is the dominant economic enterprise in the northern Sacramento Valley. Butte County’s population in 2000 was more than 205,400, with the largest employment sectors being trade, services, and state/local government. The agricultural industry employs approximately 3,000 people in Butte County, yet the agricultural production value for Butte County is about \$291 million. Glenn County has a population of about 26,900, with state/local government as its largest employment sector, and the agricultural sector as its second largest, employing 1,520 people and producing about \$281 million (USFWS 2005).

In addition to evaluating the proposed project in terms of effects within the agricultural economies of Butte and Glenn Counties, this chapter also looks at the available data in the context of the agricultural economy for the SRCA. In 2000, TNC was awarded funding from the CALFED Program ERP to conduct a socioeconomic assessment of the restoration efforts underway along the Sacramento River between Red Bluff and Colusa. The assessment was prepared by Jones & Stokes (2003), which focused on a study area for the river bounded by flood control levees and the demarcated extent of a 2½-year return frequency flood event on the Sacramento River (Chapter 3, “Description of the Proposed Project”). The study assessed social and economic conditions relevant to

42,543 acres in Butte, Colusa, Glenn and Tehama Counties, comprising a mix of agricultural lands, patches of restored and native riparian vegetation, sand bars and open water. While the SRCA is not a stand-alone economic unit, data from the Jones & Stokes (2003) assessment for the SRCA within Butte and Glenn Counties is incorporated into the discussion below to evaluate the proposed project within the context of the study area.

BUTTE COUNTY

In 2000, Butte County harvested 480,000 acres of cropland. The top commodities (aside from timber) were rice, almonds, walnuts, prunes and peaches for a combined value of about \$236 million. This bounty comes from 460,000 acres, including approximately 75,000 acres of fruit and nut orchards, 700 acres of vegetable crops, and 390,470 acres of field crops. Of the total farm acreage in the County, 4,900 acres are within the SRCA. Jones & Stokes (2003) calculated that approximately 4% of the deciduous fruits and nuts, 30% of the vegetable crops, and less than 1% of the field crops grown in Butte County are grown in the SRCA. The value of all crops grown in the SRCA, about \$5.6 million, represents 2% of Butte County's annual production.

GLENN COUNTY

In 2000, Glenn County harvested 460,000 acres of cropland. The top commodities were rice, dairy products, almonds, prunes and livestock for a combined value of about \$198 million. Of the total farm acreage in the county, 5,100 acres are within the SRCA. Jones & Stokes (2003) calculated that 9% of deciduous fruits and nuts, 2% of the vegetable crops, and less than 1% of the field crops grown in Glenn County are grown in the SRCA. The value of all crops grown in the SRCA is \$6.8 million, representing about 3% of Glenn County's annual production.

8.2.2 CONTRIBUTIONS AND COSTS OF AGRICULTURE IN THE PROPOSED PROJECT STUDY AREA

The study area covers much of the length of the narrow riparian corridor that separates Butte and Glenn Counties. Agricultural activity within the study area consists of walnut, almond, and prune orchards, and field crops such as barley, alfalfa, corn, and wheat. The remaining acreage within the study area is composed primarily of riparian habitat, wetlands, open water, and uplands. Upland areas not in agriculture may be fallow, grasslands or contain native habitat.

PINE CREEK

Between 1955 and 1974 the Pine Creek Unit was converted in stages from thick riparian forest to orchard. Hartley walnuts planted in 1962 were replanted to Chandler walnuts in 1988. By the time multiple willing landowners sold the property to TNC in 2001, the 21-acre project site was consistently under producing by about 30–60% relative to average walnut orchard production rates in Butte County (TNC 2002). Table 8-1 shows the declining production of walnuts on the Pine Creek project site.

Poor soils and persistent flooding were conditions present on the rest of the Pine Creek Unit, which had been planned for restoration. When TNC transferred the property to USFWS in 2003, the walnut orchard was removed because the 21-acre block was not considered an economically viable unit to farm (Luster, pers. comm., 2005).

Although the property was not farmed between 2001 and 2003, Butte County assessed the Pine Creek Unit a \$2,600 Possessory Tax on a total of 85 acres of walnuts. Since 2001, Butte County has not charged Possessory Taxes on the property. However, under the Refuge Revenue Sharing Act of 1978 (PL 95-469), USFWS has paid an average of \$11.03 per acre directly to each County in which a unit of the SRNWR is located. The annual contribution to Butte County from the Pine Creek project site is approximately \$232.00.

Year	Crop	Project Site Gross Production	Project Site Pounds per Acre	Butte County Average (lbs/ac)
1996	Walnuts	30,520	1,053	2,540
1997	Walnuts	50,130	2,469	3,380
1998	Walnuts	35,300	1,739	—
1999	Walnuts	54,000	2,660	3,540
2000	Walnuts	34,000	1,674	3,040
2001	Walnuts	—	—	3,800
2002	Walnuts	—	—	3,780
2003 ¹	Walnuts	—	—	3,800

Source: TNC 2002
¹Walnut orchard removed after 2003 harvest.

DEAD MAN’S REACH

The Koehnen family willingly sold the Dead Man’s Reach Unit to USFWS in 1989 as costs to maintain the site and repair flood damage became prohibitive. In addition to crop losses due to flood and wind damage, the river bank continued to erode. State and federal regulations made it difficult and expensive for the Koehnens to obtain the permits needed to place rock on the river bank (Luster, pers. comm., 2005).

The almond trees at the project site have shallow roots that make them more susceptible to wind damage. Table 8-2 shows the history of almond production on the Dead Man’s Reach project site. In addition, this portion of the Dead Man’s Reach Unit also suffers the most severe flood damage. Wind damage knocked down over 21 acres of trees in 1995 and over 1,000 trees in December 2002. By 2003, a total of 80 acres of trees had been lost as a result of overbank flood flows and wind damage. Between 2000 and 2003 almond income decreased by nearly 80% due to the loss of trees. Replanting this acreage to walnuts, a deeper-rooted and more wind-resistant tree, would not resolve the severe flood damage that occurs on this property. USFWS spends approximately \$750 each year to repair flood damage to roads on its properties. In 2004, gate repair and road rehabilitation cost \$1,750. Orchard management costs average \$50,000 per year for work including flood-related debris cleanup, silt removal, irrigation repairs, and placing rock on the bank to prevent erosion (Luster, pers. comm., 2005).

In 2000–2001, Butte County assessed the Dead Man’s Reach Unit a \$3,600 Possessory Tax on the almond orchard. Since 2001, Butte County has not charged Possessory Taxes on the property. However, under the Refuge Revenue Sharing Act of 1978 (PL 95-469), USFWS has paid an average of \$11.03 per acre directly to each County in which a unit of the SRNWR is located. The annual contribution to Butte County from the Dead Man’s Reach project site is approximately \$2,636.00.

Year	Producing Acres	Project Site Gross Production (pounds)	Project Site Pounds Per Acre	Butte County Average (lbs/ac)	Total Butte County Almond Production (lbs)	Total Butte County Almond Acres	Percent of Butte County Total Almond Production
1994	—	503,500	2,014	1,749	—	—	—
1995	—	413,524	1,654	857	—	—	—
1996	—	254,910	1,020	1,260	—	—	—

Year	Producing Acres	Project Site Gross Production (pounds)	Project Site Pounds Per Acre	Butte County Average (lbs/ac)	Total Butte County Almond Production (lbs)	Total Butte County Almond Acres	Percent of Butte County Total Almond Production
1997	—	439,520	1,758	1,760	—	—	—
1998	—	143,616	721	—	—	—	—
1999	199	264,645	1,330	1,220	45,392,000	37,207	0.58%
2000	199	220,000	1,106	1,240	44,750,000	36,095	0.49%
2001	199	214,673	1,079	1,360	50,136,000	36,865	0.43%
2002	199	261,618	1,312	1,720	62,960,000	36,605	0.41%
2003	170	128,508	756	1,600	62,668,000	39,168	0.2%
2004	138	107,387	778	—	—	—	—

Source: TNC 2002

CAPAY

The Kaiser family owned the Capay property from 1911 until they sold it willingly to USFWS in 1999. The property had been fallow for 3 years at the time of purchase and remained fallow until 2002. TNC, as the land manager under a Cooperative Land Management Agreement with USFWS, contracted with local farmers in 2002 to farm 380 acres of dryland farm ground. Approximately 200 acres of the property are currently fallow; these acres contain the poorest quality soils on the property in terms of agricultural uses. The remaining 376 acres of dryland farm ground are poor soils consisting of coarse gravel wash and sandy soils dominated by yellow starthistle. The site lacks irrigation infrastructure, which limits what can be grown on-site during the seasons when the river is unlikely to flood. Even with irrigation, the poor soils would remain an obstacle to agricultural success. Table 8-3 shows the history of agricultural crop production on the Capay project site.

Year	Crop	Gross Production	Gross Revenue
1997	—	—	—
1998	—	—	—
1999	—	—	—
2000	—	—	—
2001	—	—	—
2002	Sunflower hybrid seed	510,000 pounds	\$22,800
	Corn for fodder	530,000 pounds	\$24,380
2003	Barley (cattle feed)	90,000 pounds	\$5,040
	Corn for fodder	717,000 pounds	\$33,882
	Wheat (cattle feed)	90,000 pounds	\$4,050
2004	Vine seed (cucumbers and watermelon)	\$650/acre vine seed flat rate 1,368,000 pounds corn	\$7,000 (vine seed) \$61,560 (corn)
	Corn for fodder	\$700/acre sunflower flat rate per acre	\$13,000 (sunflower)
	Sunflower hybrid seed		

Source: TNC 2005

Note: Pounds per bushel varies by crop and year. Figures reported are in pounds as this is how the production was reported to the lessee from the grain buyers.

Expenses related to flood damage have been documented by USFWS, which annually spends approximately \$950 to repair flood damage to roads at the Capay Unit. Other expenses related to flood damage included \$150 for parking lot repair in 2003 and \$1,750 for gate repair and road rehabilitation in 2004. Costs for debris cleanup and replanting costs are not available at this time (Luster, pers. comm., 2005).

Glenn County has not charged Possessory Taxes on this property. However, under the Refuge Revenue Sharing Act of 1978 (PL 95-469), USFWS has paid an average of \$11.03 per acre directly to each County in which a unit of the SRNWR is located. The annual contribution to Glenn County from the Capay Unit is approximately \$6,353.00 (Luster pers. comm., 2005).

SUMMARY

For counties whose economies are supported primarily by the agricultural sector, loss of productive farmland can cause an economic ripple effect, potentially affecting secondary players such as suppliers, processors, packers and shippers, which in turn can make farming more expensive or impractical for other farmers. A review of the agricultural history of the project sites shows that their contribution to the agricultural economies of Butte and Glenn Counties is relatively small. Therefore, taking land out of production for the proposed project would not cause an economic ripple effect in either county.

The Capay Unit encompasses the only project site among the three that contains Prime and Statewide Important farm soils and is in active agricultural production. Restoring habitat at the Capay project site would reduce the agricultural acreage in Glenn County by 576 acres, but the actual farmed acreage loss would be 328 acres, reflecting the portion of the property that is currently in cultivation. This represents about 10% of farmland in Glenn County that is within the SRCA, but less than 0.1% of the total farmed cropland in Glenn County. TNC (2002) reports that gross revenue from field crops grown at the Capay project site in 2002 was \$47,180, in 2003 it was \$42,972, and in 2004 it was \$81,560. These values do not exceed approximately 1% of the annual value of all crops grown in the SRCA within Glenn County.

Restoring habitat on the Pine Creek and Dead Man's Reach project sites would reduce the potential agricultural production acreage in Butte County by 260 acres. This is about 5% of the farmland in Butte County that is within the SRCA, but 0.05% of the total farmed cropland in Butte County. However, because the sites are currently not in agricultural production, restoring them from the current condition to riparian habitat would not cause an adverse socioeconomic effect.