TABLE 17 IRRIGATED ACREAGE BY SUBREGION

CVPM Subregion	Crop Category	Preferred Alternative Average	Changes Compared to Average PA			Preferred Alternative Wet	Changes Compared to Wet PA			Preferred Alternative Dry	Changes Compared to Dry PA		
			Average	Wet	Dry		Average	Wet	Dry		Average	Wet	Dry
			Followed by Average				Followed by Wet				Followed by Dry		
14	Pasture	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	Alfalfa	14.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0
	Sugar Beets	4.8	0.0	0.0	0.0	4.8	0.0	0.0	0.0	4.8	0.0	0.0	0.0
	Other Field Crops	18.4	0.0	0.0	0.0	18.3	0.0	0.0	0.0	17.9	0.0	0.0	0.0
	Truck Crops	136.4	0.0	0.0	0.0	136.4	0.0	0.0	0.0	136.2	0.0	0.0	0.0
	Tomatoes	77.0	0.0	0.0	0.1	77.0	0.0	0.0	0.0	76.2	0.0	0.0	0.0
	Deciduous Orchard	24.9	0.0	0.0	0.0	24.9	0.0	0.0	0.0	24.9	0.0	0.0	0.0
	Small Grain	10.4	0.0	0.0	0.0	10.4	0.0	0.0	0.0	9.7	0.0	0.0	0.0
	Grapes	7.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0
	Cotton	206.5	0.0	0.0	-0.1	206.6	0.0	0.0	0.0	198.8	0.0	0.0	0.0
	Subtropical Orchard	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
	Subtotal	**500.4**	**0.0**	**0.0**	**0.0**	**500.5**	**0.0**	**0.0**	**0.0**	**489.9**	**0.0**	**0.0**	**0.0**
15	Pasture	3.9	0.0	0.0	0.0	3.9	0.0	0.0	0.0	3.7	0.0	0.0	0.0
	Alfalfa	83.1	0.0	0.0	0.2	83.4	0.0	0.0	0.1	80.6	0.0	0.0	0.0
	Sugar Beets	5.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
	Other Field Crops	86.0	0.0	0.0	0.0	86.1	0.0	0.0	0.0	84.2	0.0	0.0	0.0
	Rice	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	Truck Crops	12.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0
	Tomatoes	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0
	Deciduous Orchard	38.0	0.0	0.0	0.0	38.0	0.0	0.0	0.0	38.0	0.0	0.0	0.0
	Small Grain	71.0	0.0	0.0	0.0	71.6	0.0	0.0	0.0	67.9	0.0	0.0	0.0
	Grapes	56.0	0.0	0.0	0.0	56.0	0.0	0.0	0.0	56.0	0.0	0.0	0.0
	Cotton	242.1	0.0	0.0	-0.2	242.7	0.0	0.0	-0.1	235.5	0.0	0.0	0.0
	Subtropical Orchard	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
	Subtotal	**600.1**	**0.0**	**0.0**	**-0.1**	**601.7**	**0.0**	**0.0**	**0.0**	**585.9**	**0.0**	**0.0**	**0.0**
16	Pasture	6.2	0.0	0.0	0.0	6.3	-0.2	-0.2	-0.1	6.1	0.0	0.0	0.0
	Alfalfa	5.1	0.0	0.0	0.0	5.2	-0.1	-0.1	-0.1	5.1	0.0	0.0	0.0
	Other Field Crops	6.1	0.0	0.0	0.0	6.1	-0.1	-0.1	-0.1	6.0	0.0	0.0	0.0
	Truck Crops	5.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
	Deciduous Orchard	16.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0
	Small Grain	4.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	4.0	0.0	0.0	0.0
	Grapes	55.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0
	Cotton	5.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	5.0	0.0	0.0	0.0
	Subtropical Orchard	9.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0
	Subtotal	**111.4**	**-0.1**	**-0.1**	**0.0**	**111.8**	**-0.4**	**-0.4**	**-0.4**	**111.3**	**-0.1**	**-0.1**	**-0.1**

TABLE 17 IRRIGATED ACREAGE BY SUBREGION

CVPM Subregion	Crop Category	Preferred Alternative Average	Changes Compared to Average PA			Preferred Alternative Wet	Changes Compared to Wet PA			Preferred Alternative Dry	Changes Compared to Dry PA		
			Average	Wet	Dry		Average	Wet	Dry		Average	Wet	Dry
			Followed by Average				Followed by Wet				Followed by Dry		
17	Pasture	3.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
	Alfalfa	5.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0
	Sugar Beets	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	Other Field Crops	8.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0
	Truck Crops	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0
	Tomatoes	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
	Deciduous Orchard	73.0	0.0	0.0	0.0	73.0	0.0	0.0	0.0	73.0	0.0	0.0	0.0
	Small Grain	6.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0
	Grapes	109.0	0.0	0.0	0.0	109.0	0.0	0.0	0.0	109.0	0.0	0.0	0.0
	Cotton	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0
	Subtropical Orchard	35.0	0.0	0.0	0.0	35.0	0.0	0.0	0.0	35.0	0.0	0.0	0.0
	Subtotal	**260.1**	**0.0**	**0.0**	**0.0**	**260.3**	**0.0**	**0.0**	**0.0**	**255.3**	**0.0**	**0.0**	**0.0**
18	Pasture	4.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	3.7	0.0	0.0	0.0
	Alfalfa	62.2	0.0	0.0	0.1	62.8	-0.3	-0.3	-0.2	59.0	0.0	0.0	0.0
	Sugar Beets	1.9	0.0	0.0	0.0	1.9	0.0	0.0	0.0	1.9	0.0	0.0	0.0
	Other Field Crops	78.1	0.0	0.0	-0.1	78.5	-0.2	-0.2	-0.2	75.3	0.0	0.0	0.0
	Truck Crops	13.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0
	Tomatoes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Deciduous Orchard	69.0	0.0	0.0	0.0	69.0	0.0	0.0	0.0	69.0	0.0	0.0	0.0
	Small Grain	41.0	0.0	0.0	0.0	41.4	-0.1	-0.1	-0.1	38.8	0.1	0.1	0.1
	Grapes	56.0	0.0	0.0	0.0	56.0	0.0	0.0	0.0	56.0	0.0	0.0	0.0
	Cotton	170.3	0.0	0.0	-0.1	171.2	-0.5	-0.5	-0.5	163.7	0.0	0.0	0.1
	Subtropical Orchard	97.0	0.0	0.0	0.0	97.0	0.0	0.0	0.0	97.0	0.0	0.0	0.0
	Subtotal	**592.5**	**0.0**	**0.0**	**-0.1**	**594.9**	**-1.2**	**-1.2**	**-1.2**	**577.2**	**0.1**	**0.1**	**0.1**
19	Pasture	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Alfalfa	25.8	0.0	0.0	0.0	25.9	0.0	0.0	0.0	25.2	0.0	0.0	0.0
	Sugar Beets	4.9	0.0	0.0	0.0	5.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0
	Other Field Crops	6.7	0.0	0.0	0.0	6.7	0.0	0.0	0.0	6.7	0.0	0.0	0.0
	Truck Crops	24.0	0.0	0.0	0.0	24.0	0.0	0.0	0.0	24.0	0.0	0.0	0.0
	Tomatoes	1.7	0.0	0.0	0.0	1.7	0.0	0.0	0.0	1.7	0.0	0.0	0.0
	Deciduous Orchard	50.9	0.0	0.0	0.0	50.9	0.0	0.0	0.0	50.9	0.0	0.0	0.0
	Small Grain	7.6	0.0	0.0	0.0	7.6	0.0	0.0	0.0	7.2	0.0	0.0	0.0
	Grapes	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0
	Cotton	117.9	0.0	0.0	-0.1	117.8	0.0	0.0	0.0	115.1	0.0	0.0	0.0
	Subtropical Orchard	4.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0
	Subtotal	**253.6**	**0.0**	**0.0**	**0.0**	**253.6**	**0.0**	**0.0**	**0.0**	**249.7**	**0.0**	**0.0**	**0.0**

TABLE 17 IRRIGATED ACREAGE BY SUBREGION

CVPM Subregion	Crop Category	Preferred Alternative Average	Changes Compared to Average PA			Preferred Alternative Wet	Changes Compared to Wet PA			Preferred Alternative Dry	Changes Compared to Dry PA		
			Average	Wet	Dry		Average	Wet	Dry		Average	Wet	Dry
			Followed by Average				Followed by Wet				Followed by Dry		
20	Pasture	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Alfalfa	12.0	0.0	0.0	0.0	12.1	0.0	0.0	0.0	11.0	0.0	0.0	0.0
	Sugar Beets	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
	Other Field Crops	3.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0
	Truck Crops	41.0	0.0	0.0	0.0	41.0	0.0	0.0	0.0	40.9	0.0	0.0	0.0
	Tomatoes	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0
	Deciduous Orchard	52.0	0.0	0.0	0.0	52.0	0.0	0.0	0.0	52.0	0.0	0.0	0.0
	Small Grain	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
	Grapes	33.0	0.0	0.0	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0	0.0
	Cotton	33.0	0.0	0.0	0.0	33.1	0.0	0.0	0.0	30.8	0.0	0.0	0.0
	Subtropical Orchard	27.0	0.0	0.0	0.0	27.0	0.0	0.0	0.0	27.0	0.0	0.0	0.0
	Subtotal	**202.8**	**0.0**	**0.0**	**0.0**	**203.0**	**0.0**	**0.0**	**0.0**	**199.3**	**0.0**	**0.0**	**0.0**
21	Pasture	0.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0
	Alfalfa	27.6	0.0	0.0	0.0	27.7	0.0	0.0	0.0	27.3	0.0	0.0	0.0
	Sugar Beets	7.4	0.0	0.0	0.0	7.4	0.0	0.0	0.0	7.4	0.0	0.0	0.0
	Other Field Crops	16.1	0.0	0.0	0.0	16.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0
	Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Truck Crops	107.8	0.0	0.0	0.0	107.8	0.0	0.0	0.0	107.8	0.0	0.0	0.0
	Tomatoes	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
	Deciduous Orchard	25.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0
	Small Grain	1.8	0.0	0.0	0.0	1.9	0.0	0.0	0.0	1.8	0.0	0.0	0.0
	Grapes	36.9	0.0	0.0	0.0	36.9	0.0	0.0	0.0	36.9	0.0	0.0	0.0
	Cotton	120.8	0.0	0.0	-0.1	120.8	0.0	0.0	0.0	119.3	0.0	0.0	0.0
	Subtropical Orchard	14.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0
	Subtotal	**359.2**	**0.0**	**0.0**	**0.0**	**359.2**	**0.0**	**0.0**	**0.0**	**357.2**	**0.0**	**0.0**	**0.0**

NOTES:

1. All acreage values in thousands.
2. A negative value represents a lower acreage in an alternative than in the Preferred Alternative.
3. Not all 12 crops are grown in all subregions.
4. Subregions 3 and 3B should be added together to get the complete subregion 3. 3B represents the area within this subregion served by the Tehama Colusa Canal.

TABLE 18 VALUE OF PRODUCTION BY SUBREGION (Million $)

CVPM Subregion	Crop Category	Preferred Alternative Average	Changes Compared to Average PA: Average Followed by Average	Wet Followed by Average	Dry Followed by Average	Preferred Alternative Wet	Changes Compared to Wet PA: Average Followed by Wet	Wet Followed by Wet	Dry Followed by Wet	Preferred Alternative Dry	Changes Compared to Dry PA: Average Followed by Dry	Wet Followed by Dry	Dry Followed by Dry
1	Pasture	2.7	-0.2	0.0	0.0	2.6	-0.2	-0.2	-0.2	2.6	-0.3	-0.3	-0.3
	Alfalfa	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
	Other Field Crops	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
	Deciduous Orchard	4.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0
	Small Grain	0.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0
	Subtotal	**8.4**	**-0.2**	**-0.1**	**0.0**	**8.3**	**-0.3**	**-0.3**	**-0.3**	**8.3**	**-0.3**	**-0.3**	**-0.3**
2	Pasture	4.9	0.0	0.0	-0.5	4.9	0.0	0.0	-0.8	4.8	0.0	0.0	0.0
	Alfalfa	5.1	0.0	0.0	-0.2	5.1	0.0	0.0	-0.3	5.0	0.0	0.0	0.0
	Sugar Beets	2.9	0.0	0.0	0.0	2.9	0.0	0.0	0.0	2.9	0.0	0.0	0.0
	Other Field Crops	7.8	0.0	0.0	-0.2	7.8	0.0	0.0	-0.3	7.7	0.0	0.0	0.0
	Rice	3.8	0.0	0.0	-0.1	3.8	0.0	0.0	-0.3	3.8	0.0	0.0	0.0
	Truck Crops	55.1	0.0	0.0	-0.1	55.1	0.0	0.0	-0.1	55.1	0.0	0.0	0.0
	Deciduous Orchard	91.3	0.0	0.0	-0.1	91.3	0.0	0.0	0.0	91.3	0.0	0.0	0.0
	Small Grain	4.0	0.0	0.0	-0.1	3.9	0.0	0.0	-0.2	3.9	0.0	0.0	0.0
	Subtropical Orchard	14.6	0.0	0.0	0.0	14.6	0.0	0.0	0.0	14.6	0.0	0.0	0.0
	Subtotal	**189.5**	**0.0**	**0.0**	**-1.3**	**189.4**	**0.0**	**0.0**	**-2.1**	**189.1**	**0.0**	**0.0**	**0.0**
3	Pasture	1.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0
	Alfalfa	9.7	0.0	0.0	0.0	9.7	0.0	0.0	0.0	9.6	0.0	0.0	0.0
	Sugar Beets	7.3	0.0	0.0	0.0	7.3	0.0	0.0	0.0	7.2	0.0	0.0	0.0
	Other Field Crops	7.1	0.0	0.0	0.0	7.1	0.0	0.0	0.0	7.0	0.0	0.0	0.0
	Rice	118.1	0.0	0.0	0.0	118.6	-0.2	-0.2	-0.2	116.2	0.0	0.0	0.0
	Truck Crops	89.6	0.0	0.0	0.0	89.6	0.0	0.0	0.0	89.6	0.0	0.0	0.0
	Tomatoes	37.9	0.0	0.0	0.0	38.0	0.0	0.0	0.0	37.9	0.0	0.0	0.0
	Deciduous Orchard	18.9	0.0	0.0	0.0	18.9	0.0	0.0	0.0	18.9	0.0	0.0	0.0
	Small Grain	8.7	0.0	0.0	0.0	8.7	0.0	0.0	0.0	8.5	0.0	0.0	0.0
	Subtotal	**298.4**	**0.0**	**0.0**	**0.0**	**299.0**	**-0.3**	**-0.3**	**-0.2**	**295.9**	**0.0**	**0.0**	**0.0**
3B	Pasture	0.8	0.0	0.0	-0.8	0.8	0.0	0.0	-0.2	0.6	0.0	0.0	0.0
	Alfalfa	5.4	0.0	0.0	-5.4	5.4	0.0	0.0	-1.4	4.1	0.0	0.0	0.0
	Sugar Beets	4.1	0.0	0.0	-3.9	4.1	0.0	0.0	-2.0	3.8	0.0	0.0	0.0
	Other Field Crops	6.1	0.0	0.0	-6.0	6.1	0.0	0.0	-6.1	4.7	0.0	0.0	0.0
	Rice	8.2	0.0	0.0	-8.2	8.2	0.0	0.0	-8.2	5.2	0.0	0.0	0.0
	Truck Crops	2.0	0.0	0.0	-0.2	2.0	0.0	0.0	-0.1	2.0	0.0	0.0	0.0
	Tomatoes	8.9	0.0	0.0	-5.6	8.9	0.0	0.0	-2.7	8.4	0.0	0.0	0.0
	Deciduous Orchard	28.6	0.0	0.0	-3.5	28.6	0.0	0.0	0.0	28.6	0.0	0.0	0.0
	Small Grain	2.4	0.0	0.0	-2.4	2.4	0.0	0.0	-2.4	1.8	0.0	0.0	0.0
	Subtropical Orchard	1.4	0.0	0.0	-0.1	1.4	0.0	0.0	0.0	1.4	0.0	0.0	0.0
	Subtotal	**67.9**	**0.0**	**0.0**	**-36.2**	**68.1**	**0.1**	**0.1**	**-23.1**	**60.5**	**0.0**	**0.0**	**0.0**

TABLE 18 VALUE OF PRODUCTION BY SUBREGION (Million $)

CVPM Subregion	Crop Category	Preferred Alternative Average	Changes Compared to Average PA: Average	Wet	Dry	Preferred Alternative Wet	Changes Compared to Wet PA: Average	Wet	Dry	Preferred Alternative Dry	Changes Compared to Dry PA: Average	Wet	Dry
			Followed by Average				Followed by Wet				Followed by Dry		
4	Pasture	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0
	Alfalfa	3.6	0.0	0.0	0.0	3.7	0.0	0.0	0.0	3.6	0.0	0.0	0.0
	Sugar Beets	7.5	0.0	0.0	0.0	7.5	0.0	0.0	0.0	7.5	0.0	0.0	0.0
	Other Field Crops	18.0	0.0	0.0	0.0	18.1	0.0	0.0	0.0	17.9	0.0	0.0	0.0
	Rice	74.6	0.0	0.0	0.0	74.8	-0.1	-0.1	0.0	74.1	0.0	0.0	0.0
	Truck Crops	60.8	0.0	0.0	0.0	60.8	0.0	0.0	0.0	60.8	0.0	0.0	0.0
	Tomatoes	49.9	0.0	0.0	0.0	49.9	0.0	0.0	0.0	49.9	0.0	0.0	0.0
	Deciduous Orchard	32.5	0.0	0.0	0.0	32.5	0.0	0.0	0.0	32.5	0.0	0.0	0.0
	Small Grain	13.5	0.0	0.0	0.0	13.5	0.0	0.0	0.0	13.3	0.0	0.0	0.0
	Subtotal	**260.7**	**0.0**	**0.0**	**0.0**	**260.9**	**-0.1**	**-0.1**	**0.0**	**259.7**	**0.0**	**0.0**	**0.0**
5	Pasture	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.0	0.0	0.0	0.0
	Alfalfa	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0
	Sugar Beets	1.5	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.5	0.0	0.0	0.0
	Other Field Crops	6.9	0.0	0.0	0.0	6.9	0.0	0.0	0.0	6.9	0.0	0.0	0.0
	Rice	141.2	0.0	0.0	0.0	141.7	-0.4	-0.4	-0.3	140.5	0.0	0.0	0.0
	Truck Crops	23.5	0.0	0.0	0.0	23.5	0.0	0.0	0.0	23.5	0.0	0.0	0.0
	Tomatoes	2.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0
	Deciduous Orchard	129.1	0.0	0.0	0.0	129.1	0.0	0.0	0.0	129.1	0.0	0.0	0.0
	Small Grain	6.3	0.0	0.0	0.0	6.3	0.0	0.0	0.0	6.2	0.0	0.0	0.0
	Subtropical Orchard	3.6	0.0	0.0	0.0	3.6	0.0	0.0	0.0	3.6	0.0	0.0	0.0
	Subtotal	**320.0**	**0.0**	**0.0**	**0.0**	**320.5**	**-0.4**	**-0.4**	**-0.4**	**319.1**	**0.0**	**0.0**	**0.0**
6	Pasture	1.7	0.0	0.0	0.0	1.8	-0.1	-0.1	-0.1	1.7	0.0	0.0	0.0
	Alfalfa	16.8	0.0	0.0	0.0	17.0	-0.2	-0.2	-0.2	16.8	0.0	0.0	0.0
	Sugar Beets	16.2	0.0	0.0	0.0	16.3	-0.1	-0.1	-0.1	16.2	0.0	0.0	0.0
	Other Field Crops	28.9	0.0	0.0	0.0	29.2	-0.2	-0.2	-0.2	28.8	0.0	0.0	0.0
	Rice	10.6	0.0	0.0	0.0	10.8	-0.2	-0.2	-0.2	10.5	0.0	0.0	0.0
	Truck Crops	14.1	0.0	0.0	0.0	14.1	0.0	0.0	0.0	14.1	0.0	0.0	0.0
	Tomatoes	70.0	0.0	0.0	0.0	70.2	-0.2	-0.2	-0.1	70.0	0.0	0.0	0.0
	Deciduous Orchard	26.2	0.0	0.0	0.0	26.2	0.0	0.0	0.0	26.2	0.0	0.0	0.0
	Small Grain	21.9	0.0	0.0	0.0	22.0	-0.1	-0.1	-0.1	21.5	0.1	0.1	0.1
	Grapes	13.8	0.0	0.0	0.0	13.8	0.0	0.0	0.0	13.8	0.0	0.0	0.0
	Subtotal	**220.3**	**0.0**	**0.0**	**0.0**	**221.2**	**-1.0**	**-1.0**	**-1.0**	**219.6**	**0.0**	**0.0**	**0.0**
7	Pasture	2.1	0.0	0.0	0.0	2.1	0.0	0.0	0.0	2.1	0.0	0.0	0.0
	Alfalfa	1.8	0.0	0.0	0.0	1.8	0.0	0.0	0.0	1.8	0.0	0.0	0.0
	Sugar Beets	1.9	0.0	0.0	0.0	1.9	0.0	0.0	0.0	1.9	0.0	0.0	0.0
	Other Field Crops	1.8	0.0	0.0	0.0	1.8	0.0	0.0	0.0	1.8	0.0	0.0	0.0
	Rice	39.6	0.0	0.0	0.0	39.7	-0.1	-0.1	0.0	39.3	0.0	0.0	0.0
	Truck Crops	1.2	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.2	0.0	0.0	0.0
	Tomatoes	0.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0
	Deciduous Orchard	9.5	0.0	0.0	0.0	9.5	0.0	0.0	0.0	9.5	0.0	0.0	0.0
	Small Grain	3.2	0.0	0.0	0.0	3.2	0.0	0.0	0.0	3.1	0.0	0.0	0.0
	Grapes	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0
	Subtotal	**62.3**	**0.0**	**0.0**	**0.0**	**62.4**	**-0.1**	**-0.1**	**0.0**	**61.9**	**0.0**	**0.0**	**0.0**

TABLE 18 VALUE OF PRODUCTION BY SUBREGION (Million $)

CVPM Subregion	Crop Category	Preferred Alternative Average	Changes Compared to Average PA			Preferred Alternative Wet	Changes Compared to Wet PA			Preferred Alternative Dry	Changes Compared to Dry PA		
			Average	Wet	Dry		Average	Wet	Dry		Average	Wet	Dry
			Followed by Average				Followed by Wet				Followed by Dry		
8	Pasture	6.9	0.0	0.0	0.0	6.9	0.0	0.0	0.0	6.8	0.0	0.0	0.0
	Alfalfa	7.2	0.0	0.0	0.0	7.2	0.0	0.0	0.0	7.2	0.0	0.0	0.0
	Sugar Beets	9.8	0.0	0.0	0.0	9.8	0.0	0.0	0.0	9.8	0.0	0.0	0.0
	Other Field Crops	20.8	0.0	0.0	0.0	20.8	0.0	0.0	0.0	20.7	0.0	0.0	0.0
	Rice	3.7	0.0	0.0	0.0	3.7	0.0	0.0	0.0	3.7	0.0	0.0	0.0
	Truck Crops	70.9	0.0	0.0	0.0	70.9	0.0	0.0	0.0	70.9	0.0	0.0	0.0
	Tomatoes	19.8	0.0	0.0	0.0	19.8	0.0	0.0	0.0	19.7	0.0	0.0	0.0
	Deciduous Orchard	49.9	0.0	0.0	0.0	49.9	0.0	0.0	0.0	49.9	0.0	0.0	0.0
	Small Grain	9.2	0.0	0.0	0.0	9.2	0.0	0.0	0.0	8.9	0.0	0.0	0.0
	Grapes	101.7	0.0	0.0	0.0	101.7	0.0	0.0	0.0	101.7	0.0	0.0	0.0
	Subtotal	**299.9**	**0.0**	**0.0**	**0.0**	**300.0**	**0.0**	**0.0**	**0.0**	**299.3**	**0.0**	**0.0**	**0.0**
9	Pasture	3.6	0.0	0.0	0.0	3.6	-0.1	-0.1	-0.1	3.4	0.1	0.1	0.1
	Alfalfa	25.6	-0.1	-0.1	0.0	25.7	-0.1	-0.1	-0.1	25.2	0.2	0.2	0.2
	Sugar Beets	22.0	0.0	0.0	0.0	22.0	0.0	0.0	0.0	21.9	0.1	0.1	0.1
	Other Field Crops	55.9	-0.1	-0.1	-0.1	56.0	-0.2	-0.2	-0.2	55.3	0.3	0.3	0.3
	Rice	0.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0
	Truck Crops	190.8	0.0	0.0	0.0	190.8	0.0	0.0	0.0	190.6	0.1	0.1	0.1
	Tomatoes	64.9	0.0	0.0	0.0	65.0	-0.1	-0.1	0.0	64.8	0.1	0.1	0.1
	Deciduous Orchard	22.7	0.0	0.0	0.0	22.7	0.0	0.0	0.0	22.7	0.0	0.0	0.0
	Small Grain	30.7	0.0	0.0	0.0	30.9	-0.1	-0.1	-0.1	29.7	0.3	0.3	0.3
	Grapes	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0
	Subtotal	**426.8**	**-0.3**	**-0.3**	**-0.1**	**427.2**	**-0.7**	**-0.7**	**-0.6**	**424.2**	**1.2**	**1.2**	**1.2**
10	Pasture	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0
	Alfalfa	23.6	0.0	0.0	-0.2	23.6	-0.1	0.0	-0.1	23.6	0.0	0.0	0.0
	Sugar Beets	12.2	0.0	0.0	0.0	12.2	0.0	0.0	0.0	12.2	0.0	0.0	0.0
	Other Field Crops	31.0	0.0	0.0	-0.1	31.0	0.0	0.0	0.0	31.0	0.0	0.0	0.0
	Rice	2.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0
	Truck Crops	718.0	0.0	0.0	0.0	717.9	0.1	0.0	0.1	718.1	0.0	0.0	0.0
	Tomatoes	60.1	0.0	0.0	0.0	60.1	0.0	0.0	0.0	60.1	0.0	0.0	0.0
	Deciduous Orchard	52.4	0.0	0.0	0.0	52.4	0.0	0.0	0.0	52.4	0.0	0.0	0.0
	Small Grain	7.6	0.0	0.0	0.0	7.5	0.1	0.0	0.1	7.6	0.0	0.0	0.0
	Grapes	1.9	0.0	0.0	0.0	1.9	0.0	0.0	0.0	1.9	0.0	0.0	0.0
	Cotton	102.6	0.0	0.0	-0.5	102.7	-0.1	0.0	-0.1	102.6	0.0	0.0	0.0
	Subtropical Orchard	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0
	Subtotal	**1015.1**	**0.0**	**0.0**	**-0.8**	**1015.1**	**0.0**	**0.0**	**0.0**	**1015.2**	**0.0**	**0.0**	**0.0**

TABLE 18 VALUE OF PRODUCTION BY SUBREGION (Million $)

CVPM Subregion	Crop Category	Preferred Alternative Average	Changes Compared to Average PA			Preferred Alternative Wet	Changes Compared to Wet PA			Preferred Alternative Dry	Changes Compared to Dry PA		
			Average	Wet	Dry		Average	Wet	Dry		Average	Wet	Dry
			Followed by Average				Followed by Wet				Followed by Dry		
11	Pasture	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	9.9	0.0	0.0	0.0
	Alfalfa	4.8	0.0	0.0	0.0	4.8	0.0	0.0	0.0	4.8	0.0	0.0	0.0
	Sugar Beets	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0
	Other Field Crops	11.5	0.0	0.0	0.0	11.5	0.0	0.0	0.0	11.4	0.0	0.0	0.0
	Rice	3.5	0.0	0.0	0.0	3.6	0.0	0.0	0.0	3.5	0.0	0.0	0.0
	Truck Crops	40.1	0.0	0.0	0.0	40.1	0.0	0.0	0.0	40.0	0.0	0.0	0.0
	Tomatoes	1.2	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.2	0.0	0.0	0.0
	Deciduous Orchard	115.8	0.0	0.0	0.0	115.8	0.0	0.0	0.0	115.8	0.0	0.0	0.0
	Small Grain	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
	Grapes	19.4	0.0	0.0	0.0	19.4	0.0	0.0	0.0	19.4	0.0	0.0	0.0
	Subtotal	**207.6**	**0.0**	**0.0**	**0.0**	**207.6**	**0.0**	**0.0**	**0.0**	**207.5**	**0.0**	**0.0**	**0.0**
12	Pasture	4.2	0.0	0.0	0.0	4.2	0.0	0.0	0.0	4.2	0.0	0.0	0.0
	Alfalfa	10.5	0.0	0.0	0.0	10.4	0.0	0.0	0.0	10.5	0.0	0.0	0.0
	Sugar Beets	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	Other Field Crops	26.5	0.0	0.0	0.0	26.4	0.0	0.0	0.0	26.3	0.0	0.0	0.0
	Truck Crops	19.1	0.0	0.0	0.0	19.1	0.0	0.0	0.0	19.1	0.0	0.0	0.0
	Deciduous Orchard	134.7	0.0	0.0	0.0	134.7	0.0	0.0	0.0	134.7	0.0	0.0	0.0
	Small Grain	5.4	0.0	0.0	0.0	5.4	0.0	0.0	0.0	5.3	0.0	0.0	0.0
	Grapes	26.2	0.0	0.0	0.0	26.2	0.0	0.0	0.0	26.2	0.0	0.0	0.0
	Cotton	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
	Subtropical Orchard	3.5	0.0	0.0	0.0	3.5	0.0	0.0	0.0	3.5	0.0	0.0	0.0
	Subtotal	**231.2**	**0.0**	**0.0**	**0.0**	**230.9**	**0.0**	**0.0**	**0.0**	**230.8**	**0.0**	**0.0**	**0.0**
13	Pasture	9.2	0.0	0.0	0.0	9.3	-0.1	-0.1	-0.1	9.2	-0.1	-0.1	-0.1
	Alfalfa	24.2	0.0	0.0	0.0	24.3	-0.1	-0.1	-0.1	24.2	-0.1	-0.1	-0.1
	Sugar Beets	4.4	0.0	0.0	0.0	4.4	0.0	0.0	0.0	4.4	0.0	0.0	0.0
	Other Field Crops	35.2	0.0	0.0	0.0	35.4	-0.1	-0.1	-0.1	35.1	-0.1	-0.1	-0.1
	Rice	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0
	Truck Crops	114.4	0.0	0.0	0.0	114.4	0.0	0.0	0.0	114.4	0.0	0.0	0.0
	Tomatoes	10.5	0.0	0.0	0.0	10.5	0.0	0.0	0.0	10.5	0.0	0.0	0.0
	Deciduous Orchard	193.4	0.0	0.0	0.0	193.4	0.0	0.0	0.0	193.4	0.0	0.0	0.0
	Small Grain	25.3	0.0	0.0	0.0	25.4	0.0	0.0	-0.1	25.0	0.0	0.0	0.0
	Grapes	184.9	0.0	0.0	0.0	184.9	0.0	0.0	0.0	184.9	0.0	0.0	0.0
	Cotton	71.4	0.0	0.0	-0.1	71.8	-0.2	-0.2	-0.3	71.2	-0.2	-0.2	-0.2
	Subtropical Orchard	34.7	0.0	0.0	0.0	34.7	0.0	0.0	0.0	34.7	0.0	0.0	0.0
	Subtotal	**710.6**	**0.0**	**0.0**	**0.0**	**711.5**	**-0.5**	**-0.5**	**-0.7**	**709.9**	**-0.6**	**-0.6**	**-0.6**

TABLE 18 VALUE OF PRODUCTION BY SUBREGION (Million $)

CVPM Subregion	Crop Category	Preferred Alternative Average	Changes Compared to Average PA: Average	Wet	Dry	Preferred Alternative Wet	Changes Compared to Wet PA: Average	Wet	Dry	Preferred Alternative Dry	Changes Compared to Dry PA: Average	Wet	Dry
			Followed by Average				Followed by Wet				Followed by Dry		
14	Pasture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Alfalfa	8.6	0.0	0.0	0.0	8.6	0.0	0.0	0.0	8.2	0.0	0.0	0.0
	Sugar Beets	3.9	0.0	0.0	0.0	4.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0
	Other Field Crops	11.0	0.0	0.0	0.0	10.9	0.0	0.0	0.0	10.7	0.0	0.0	0.0
	Truck Crops	817.9	0.0	0.0	0.0	817.8	0.0	0.0	0.0	816.9	0.0	0.0	0.0
	Tomatoes	114.6	0.0	0.0	0.1	114.6	0.0	0.0	0.0	113.3	0.0	0.0	0.0
	Deciduous Orchard	38.5	0.0	0.0	0.0	38.5	0.0	0.0	0.0	38.5	0.0	0.0	0.0
	Small Grain	5.2	0.0	0.0	0.0	5.2	0.0	0.0	0.0	4.9	0.0	0.0	0.0
	Grapes	15.1	0.0	0.0	0.0	15.1	0.0	0.0	0.0	15.1	0.0	0.0	0.0
	Cotton	234.6	0.0	0.0	-0.1	234.7	0.0	0.0	0.0	225.8	0.0	0.0	0.0
	Subtropical Orchard	3.7	0.0	0.0	0.0	3.7	0.0	0.0	0.0	3.7	0.0	0.0	0.0
	Subtotal	**1253.1**	**0.0**	**0.0**	**0.0**	**1253.1**	**0.0**	**0.0**	**0.0**	**1241.1**	**0.0**	**0.0**	**0.0**
15	Pasture	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0
	Alfalfa	51.3	0.0	0.0	0.1	51.4	0.0	0.0	0.0	49.7	0.0	0.0	0.0
	Sugar Beets	4.1	0.0	0.0	0.0	4.1	0.0	0.0	0.0	4.0	0.0	0.0	0.0
	Other Field Crops	51.2	0.0	0.0	0.0	51.3	0.0	0.0	0.0	50.2	0.0	0.0	0.0
	Rice	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	Truck Crops	72.0	0.0	0.0	0.0	72.0	0.0	0.0	0.0	71.9	0.0	0.0	0.0
	Tomatoes	3.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0
	Deciduous Orchard	58.7	0.0	0.0	0.0	58.7	0.0	0.0	0.0	58.7	0.0	0.0	0.0
	Small Grain	41.6	0.0	0.0	0.0	41.9	0.0	0.0	0.0	39.7	0.0	0.0	0.0
	Grapes	121.7	0.0	0.0	0.0	121.7	0.0	0.0	0.0	121.7	0.0	0.0	0.0
	Cotton	275.0	0.0	0.0	-0.2	275.7	0.0	0.0	-0.1	267.5	0.0	0.0	0.0
	Subtropical Orchard	3.7	0.0	0.0	0.0	3.7	0.0	0.0	0.0	3.7	0.0	0.0	0.0
	Subtotal	**683.2**	**0.0**	**0.0**	**-0.1**	**684.5**	**0.0**	**0.0**	**-0.1**	**671.1**	**0.0**	**0.0**	**0.0**
16	Pasture	1.4	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.4	0.0	0.0	0.0
	Alfalfa	3.1	0.0	0.0	0.0	3.2	0.0	0.0	0.0	3.1	0.0	0.0	0.0
	Other Field Crops	3.6	0.0	0.0	0.0	3.6	0.0	0.0	0.0	3.6	0.0	0.0	0.0
	Truck Crops	30.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0
	Deciduous Orchard	24.7	0.0	0.0	0.0	24.7	0.0	0.0	0.0	24.7	0.0	0.0	0.0
16	Small Grain	2.4	0.0	0.0	0.0	2.4	0.0	0.0	0.0	2.3	0.0	0.0	0.0
	Grapes	119.6	0.0	0.0	0.0	119.6	0.0	0.0	0.0	119.6	0.0	0.0	0.0
	Cotton	5.7	0.0	0.0	0.0	5.8	-0.1	-0.1	-0.1	5.7	0.0	0.0	0.0
	Subtropical Orchard	33.7	0.0	0.0	0.0	33.7	0.0	0.0	0.0	33.7	0.0	0.0	0.0
	Subtotal	**224.3**	**0.0**	**0.0**	**0.0**	**224.5**	**-0.2**	**-0.2**	**-0.2**	**224.2**	**0.0**	**0.0**	**0.0**

TABLE 18 VALUE OF PRODUCTION BY SUBREGION (Million $)

CVPM Subregion	Crop Category	Preferred Alternative Average	Changes Compared to Average PA: Average	Wet	Dry	Preferred Alternative Wet	Changes Compared to Wet PA: Average	Wet	Dry	Preferred Alternative Dry	Changes Compared to Dry PA: Average	Wet	Dry
			Followed by Average				Followed by Wet				Followed by Dry		
17	Pasture	0.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.5	0.0	0.0	0.0
	Alfalfa	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0	2.5	0.0	0.0	0.0
	Sugar Beets	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	Other Field Crops	4.8	0.0	0.0	0.0	4.8	0.0	0.0	0.0	4.2	0.0	0.0	0.0
	Truck Crops	60.0	0.0	0.0	0.0	60.0	0.0	0.0	0.0	59.7	0.0	0.0	0.0
	Tomatoes	1.5	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.4	0.0	0.0	0.0
	Deciduous Orchard	112.8	0.0	0.0	0.0	112.8	0.0	0.0	0.0	112.8	0.0	0.0	0.0
	Small Grain	3.5	0.0	0.0	0.0	3.5	0.0	0.0	0.0	3.1	0.0	0.0	0.0
	Grapes	236.9	0.0	0.0	0.0	236.9	0.0	0.0	0.0	236.9	0.0	0.0	0.0
	Cotton	11.4	0.0	0.0	0.0	11.4	0.0	0.0	0.0	9.9	0.0	0.0	0.0
	Subtropical Orchard	131.0	0.0	0.0	0.0	131.0	0.0	0.0	0.0	131.0	0.0	0.0	0.0
	Subtotal	**565.7**	**0.0**	**0.0**	**0.0**	**565.7**	**0.0**	**0.0**	**0.0**	**562.0**	**0.0**	**0.0**	**0.0**
18	Pasture	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.8	0.0	0.0	0.0
	Alfalfa	38.4	0.0	0.0	0.1	38.7	-0.2	-0.2	-0.2	36.4	0.0	0.0	0.0
	Sugar Beets	1.6	0.0	0.0	0.0	1.6	0.0	0.0	0.0	1.5	0.0	0.0	0.0
	Other Field Crops	46.5	0.0	0.0	0.0	46.7	-0.1	-0.1	-0.1	44.8	0.0	0.0	0.0
	Truck Crops	78.0	0.0	0.0	0.0	78.0	0.0	0.0	0.0	77.9	0.0	0.0	0.0
	Tomatoes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Deciduous Orchard	106.6	0.0	0.0	0.0	106.6	0.0	0.0	0.0	106.6	0.0	0.0	0.0
	Small Grain	24.0	0.0	0.0	0.0	24.3	-0.1	-0.1	-0.1	22.7	0.1	0.1	0.1
	Grapes	121.7	0.0	0.0	0.0	121.7	0.0	0.0	0.0	121.7	0.0	0.0	0.0
	Cotton	193.5	0.0	0.0	-0.1	194.6	-0.6	-0.6	-0.6	186.0	0.0	0.0	0.0
	Subtropical Orchard	363.1	0.0	0.0	0.0	363.1	0.0	0.0	0.0	363.1	0.0	0.0	0.0
	Subtotal	**974.2**	**0.0**	**0.0**	**-0.1**	**976.1**	**-1.0**	**-1.0**	**-1.0**	**961.5**	**0.1**	**0.1**	**0.1**
19	Pasture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Alfalfa	15.7	0.0	0.0	0.0	15.7	0.0	0.0	0.0	15.3	0.0	0.0	0.0
	Sugar Beets	4.3	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.2	0.0	0.0	0.0
	Other Field Crops	4.5	0.0	0.0	0.0	4.5	0.0	0.0	0.0	4.5	0.0	0.0	0.0
	Truck Crops	147.1	0.0	0.0	0.0	147.0	0.0	0.0	0.0	147.0	0.0	0.0	0.0
	Tomatoes	2.7	0.0	0.0	0.0	2.7	0.0	0.0	0.0	2.7	0.0	0.0	0.0
	Deciduous Orchard	80.2	0.0	0.0	0.0	80.2	0.0	0.0	0.0	80.2	0.0	0.0	0.0
	Small Grain	3.6	0.0	0.0	0.0	3.6	0.0	0.0	0.0	3.5	0.0	0.0	0.0
	Grapes	33.0	0.0	0.0	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0	0.0
	Cotton	125.2	0.0	0.0	-0.1	125.1	0.0	0.0	0.0	122.2	0.0	0.0	0.0
	Subtropical Orchard	17.1	0.0	0.0	0.0	17.1	0.0	0.0	0.0	17.1	0.0	0.0	0.0
	Subtotal	**433.3**	**0.0**	**0.0**	**0.0**	**433.3**	**0.0**	**0.0**	**0.0**	**429.7**	**0.0**	**0.0**	**0.0**

TABLE 18 VALUE OF PRODUCTION BY SUBREGION (Million $)

CVPM Subregion	Crop Category	Preferred Alternative Average	Changes Compared to Average PA: Average	Wet	Dry	Preferred Alternative Wet	Changes Compared to Wet PA: Average	Wet	Dry	Preferred Alternative Dry	Changes Compared to Dry PA: Average	Wet	Dry
			Followed by Average				Followed by Wet				Followed by Dry		
20	Pasture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Alfalfa	7.3	0.0	0.0	0.0	7.3	0.0	0.0	0.0	6.7	0.0	0.0	0.0
	Sugar Beets	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0
	Other Field Crops	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0
	Truck Crops	251.6	0.0	0.0	0.0	251.6	0.0	0.0	0.0	251.2	0.0	0.0	0.0
	Tomatoes	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
	Deciduous Orchard	81.8	0.0	0.0	0.0	81.8	0.0	0.0	0.0	81.8	0.0	0.0	0.0
	Small Grain	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.4	0.0	0.0	0.0
	Grapes	109.1	0.0	0.0	0.0	109.1	0.0	0.0	0.0	109.1	0.0	0.0	0.0
	Cotton	35.0	0.0	0.0	0.0	35.2	0.0	0.0	0.0	32.7	0.0	0.0	0.0
	Subtropical Orchard	115.6	0.0	0.0	0.0	115.6	0.0	0.0	0.0	115.6	0.0	0.0	0.0
	Subtotal	**603.9**	**0.0**	**0.0**	**0.0**	**604.1**	**0.0**	**0.0**	**0.0**	**600.4**	**0.0**	**0.0**	**0.0**
21	Pasture	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0
	Alfalfa	16.8	0.0	0.0	0.0	16.8	0.0	0.0	0.0	16.6	0.0	0.0	0.0
	Sugar Beets	6.4	0.0	0.0	0.0	6.4	0.0	0.0	0.0	6.3	0.0	0.0	0.0
	Other Field Crops	10.8	0.0	0.0	0.0	10.8	0.0	0.0	0.0	10.8	0.0	0.0	0.0
	Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Truck Crops	661.4	0.0	0.0	0.0	661.3	0.0	0.0	0.1	661.3	0.0	0.0	0.0
	Tomatoes	1.6	0.0	0.0	0.0	1.6	0.0	0.0	0.0	1.6	0.0	0.0	0.0
	Deciduous Orchard	39.3	0.0	0.0	0.0	39.3	0.0	0.0	0.0	39.3	0.0	0.0	0.0
	Small Grain	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0
	Grapes	122.1	0.0	0.0	0.0	122.1	0.0	0.0	0.0	122.1	0.0	0.0	0.0
	Cotton	128.3	0.0	0.0	-0.1	128.3	0.0	0.0	0.0	126.7	0.0	0.0	0.0
	Subtropical Orchard	59.9	0.0	0.0	0.0	59.9	0.0	0.0	0.0	59.9	0.0	0.0	0.0
	Subtotal	**1047.6**	**0.0**	**0.0**	**0.0**	**1047.6**	**0.0**	**0.0**	**0.0**	**1045.7**	**0.0**	**0.0**	**0.0**

NOTES:

1. All values in millions of 1992 dollars.
2. A negative value represents a lower gross revenue in an alternative than in the Preferred Alternative.
3. Not all 12 crops are grown in all subregions.
4. Subregions 3 and 3B should be added together to get the complete subregion 3. 3B represents the area within this subregion served by the Tehama Colusa Canal

TABLE 19 CHANGES IN NET REVENUE BY SUBREGION (Million $)

CVPM Subregion	Cause of Net Revenue Change	Change Compared to Average PA			Change Compared to Wet PA			Change Compared to Dry PA		
		Average	Wet	Dry	Average	Wet	Dry	Average	Wet	Dry
		Followed By Average			Followed By Wet			Followed By Dry		
1	Fallowed Land	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
	Groundwater Pumping	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1
	Irrigation Cost	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	CVP Water Cost	-0.3	-0.2	-0.1	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
	Higher Crop Prices	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Net Change	**-0.2**	**0.0**	**0.1**	**-0.3**	**-0.3**	**-0.3**	**-0.4**	**-0.4**	**-0.4**
2	Fallowed Land	0.0	0.0	-0.3	0.0	0.0	-0.4	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	0.2	0.2	0.2	-1.2	-1.2	-1.2
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.2	0.0	-0.1	0.6	0.2	-0.5	0.0	0.0	0.1
	Higher Crop Prices	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
	Net Change	**0.2**	**0.0**	**-0.2**	**0.8**	**0.4**	**-0.7**	**-1.2**	**-1.2**	**-1.1**
3	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	0.2	0.2	0.2	-0.6	-0.6	-0.6
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.0	0.0	0.0	0.2	0.2	0.2	0.3	0.3	0.3
	Higher Crop Prices	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.0
	Net Change	**0.0**	**0.0**	**0.3**	**0.3**	**0.3**	**0.5**	**-0.3**	**-0.3**	**-0.3**
3B	Fallowed Land	0.0	0.0	-6.4	0.0	0.0	-3.8	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	-1.4	-1.4	4.2	-0.3	-0.3	-0.3
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.4	-1.4	-3.7	4.7	1.2	-4.2	-0.2	-0.2	0.3
	Higher Crop Prices	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Net Change	**0.4**	**-1.4**	**-10.1**	**3.3**	**-0.1**	**-3.8**	**-0.5**	**-0.5**	**-0.1**
4	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	0.1	0.1	0.1	-0.4	-0.4	-0.4
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2
	Higher Crop Prices	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.0
	Net Change	**0.0**	**0.0**	**0.3**	**0.2**	**0.2**	**0.4**	**-0.1**	**-0.1**	**-0.1**

TABLE 19 CHANGES IN NET REVENUE BY SUBREGION (Million $)

CVPM Subregion	Cause of Net Revenue Change	Change Compared to Average PA			Change Compared to Wet PA			Change Compared to Dry PA		
		Average	Wet	Dry	Average	Wet	Dry	Average	Wet	Dry
		Followed By Average			Followed By Wet			Followed By Dry		
5	Fallowed Land	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	0.3	0.3	0.4	-0.7	-0.7	-0.7
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	Higher Crop Prices	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.0
	Net Change	**0.3**	**0.3**	**0.6**	**0.6**	**0.6**	**0.8**	**-0.4**	**-0.4**	**-0.4**
6	Fallowed Land	0.0	0.0	0.0	-0.2	-0.2	-0.2	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Higher Crop Prices	0.0	0.0	0.4	0.0	0.0	0.2	0.0	0.0	0.0
	Net Change	**0.0**	**0.0**	**0.4**	**-0.2**	**-0.2**	**0.0**	**-0.1**	**-0.1**	**-0.1**
7	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	0.1	0.1	0.1	-0.4	-0.4	-0.4
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Higher Crop Prices	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
	Net Change	**0.1**	**0.1**	**0.2**	**0.2**	**0.2**	**0.2**	**-0.3**	**-0.3**	**-0.3**
8	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.3	-0.3	-0.3
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.8	0.5	1.6	2.0	1.2	2.8	0.3	0.3	0.4
	Higher Crop Prices	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0
	Net Change	**0.8**	**0.5**	**1.8**	**1.9**	**1.1**	**2.8**	**0.0**	**0.0**	**0.1**
9	Fallowed Land	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	0.2	0.2	0.2
	Groundwater Pumping	0.6	0.6	0.6	1.2	1.2	1.2	0.3	0.3	0.3
	Irrigation Cost	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	CVP Water Cost	-1.2	-1.2	-1.2	-2.0	-2.0	-2.0	-0.5	-0.5	-0.5
	Higher Crop Prices	0.0	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.0
	Net Change	**-0.4**	**-0.4**	**0.1**	**-0.7**	**-0.7**	**-0.5**	**0.4**	**0.4**	**0.3**

TABLE 19 CHANGES IN NET REVENUE BY SUBREGION (Million $)

CVPM Subregion	Cause of Net Revenue Change	Change Compared to Average PA			Change Compared to Wet PA			Change Compared to Dry PA		
		Average	Wet	Dry	Average	Wet	Dry	Average	Wet	Dry
		Followed By Average			Followed By Wet			Followed By Dry		
10	Fallowed Land	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	6.8	8.3	0.8	8.6	-0.1	-0.1	-0.1
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.1	-0.4	-6.3	-7.9	-0.7	-8.1	-0.2	-0.2	0.1
	Higher Crop Prices	0.0	0.0	0.4	0.0	0.0	0.2	0.0	0.0	0.0
	Net Change	**0.1**	**-0.4**	**0.8**	**0.5**	**0.1**	**0.7**	**-0.3**	**-0.3**	**0.0**
11	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Higher Crop Prices	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.0
	Net Change	**0.0**	**0.0**	**0.3**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**
12	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	0.1	0.1	0.1	-0.2	-0.2	-0.2
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Higher Crop Prices	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.0
	Net Change	**0.0**	**0.0**	**0.3**	**0.1**	**0.1**	**0.1**	**-0.2**	**-0.2**	**-0.2**
13	Fallowed Land	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
	Groundwater Pumping	-0.8	-0.7	2.7	-1.6	-1.6	4.9	-0.2	-0.2	-0.2
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.8	0.6	-2.1	1.7	1.5	-4.3	0.2	0.2	0.4
	Higher Crop Prices	0.0	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.0
	Net Change	**0.1**	**-0.1**	**1.1**	**0.0**	**-0.1**	**0.6**	**-0.1**	**-0.1**	**0.2**
14	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	-1.3	-3.5	6.0	-1.8	-6.4	5.5	6.3	6.3	7.3
	Higher Crop Prices	0.0	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.0
	Net Change	**-1.3**	**-3.5**	**6.5**	**-1.8**	**-6.4**	**5.7**	**6.3**	**6.3**	**7.3**

TABLE 19 CHANGES IN NET REVENUE BY SUBREGION (Million $)

CVPM Subregion	Cause of Net Revenue Change	Change Compared to Average PA			Change Compared to Wet PA			Change Compared to Dry PA		
		Average	Wet	Dry	Average	Wet	Dry	Average	Wet	Dry
		Followed By Average			Followed By Wet			Followed By Dry		
15	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	-0.3	-0.3	-0.3	1.5	1.5	1.5
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.3	0.2	0.4	0.2	0.2	0.3	0.4	0.4	0.5
	Higher Crop Prices	0.0	0.0	0.4	0.1	0.0	0.2	0.0	0.0	0.0
	Net Change	**0.3**	**0.2**	**0.8**	**-0.1**	**-0.1**	**0.2**	**1.9**	**1.9**	**1.9**
16	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.5	-0.5	-0.5
	Higher Crop Prices	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	Net Change	**0.0**	**0.0**	**0.0**	**-0.1**	**-0.1**	**-0.1**	**0.0**	**0.0**	**0.0**
17	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.1	-0.1	-0.1
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.1	0.1	0.3	0.4	0.3	0.5	0.0	0.0	0.1
	Higher Crop Prices	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
	Net Change	**0.0**	**-0.1**	**0.3**	**0.1**	**0.0**	**0.2**	**-0.1**	**-0.1**	**0.0**
18	Fallowed Land	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	-0.2	-0.2	-0.2	-0.8	-0.8	-0.8
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	1.5	1.0	3.3	2.2	1.7	3.9	-0.8	-0.8	0.0
	Higher Crop Prices	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0
	Net Change	**1.5**	**1.0**	**3.7**	**1.9**	**1.4**	**3.6**	**-1.6**	**-1.6**	**-0.8**
19	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	-0.2	-0.2	-0.2	0.8	0.8	1.7
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	-0.4
	Higher Crop Prices	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0
	Net Change	**0.5**	**0.5**	**0.8**	**0.3**	**0.3**	**0.4**	**1.3**	**1.3**	**1.3**

TABLE 19 CHANGES IN NET REVENUE BY SUBREGION (Million $)

CVPM Subregion	Cause of Net Revenue Change	Change Compared to Average PA			Change Compared to Wet PA			Change Compared to Dry PA		
		Average	Wet	Dry	Average	Wet	Dry	Average	Wet	Dry
		Followed By Average			Followed By Wet			Followed By Dry		
20	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.2
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	0.1	-0.2	0.9	0.3	0.1	1.1	0.2	0.2	0.5
	Higher Crop Prices	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
	Net Change	**0.1**	**-0.2**	**1.1**	**0.3**	**0.1**	**1.1**	**0.0**	**0.0**	**0.3**
21	Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater Pumping	0.0	0.0	0.0	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3
	Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CVP Water Cost	-0.1	-0.3	0.5	-0.2	-0.5	0.4	0.7	0.7	0.9
	Higher Crop Prices	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0
	Net Change	**-0.1**	**-0.3**	**0.7**	**-0.4**	**-0.7**	**0.2**	**0.4**	**0.4**	**0.6**
Total	Fallowed Land	-0.1	0.0	-6.8	-0.5	-0.5	-4.7	-0.2	-0.2	-0.2
	Groundwater Pumping	-0.4	-0.4	9.9	5.5	-2.1	17.9	-2.1	-2.1	-1.2
	Irrigation Cost	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	CVP Water Cost	1.3	-4.3	-2.3	0.0	-2.9	-6.5	8.0	7.9	9.8
	Higher Crop Prices	0.1	0.0	4.7	0.4	0.4	1.9	0.0	0.0	0.0
	Net Change	**1.1**	**-4.4**	**5.6**	**5.7**	**-4.8**	**8.8**	**5.9**	**5.9**	**8.7**

Notes:
1. All values in millions of 1992 dollars
2. A negative value represents a reduction in net revenue compared to the Preferred Alternative
3. Subregions 3 and 3B should be added together to get the complete subregion 3. 3B represents the area within this subregion served by the Tehama Colusa Canal
4. PA is the Preferred Alternative

TABLE 20 IRRIGATION WATER APPLIED BY SUBREGION

CVPM Subregion	Water Source	Preferred Alternative Average	Changes Compared to Average PA			Preferred Alternative Wet	Changes Compared to Wet PA			Preferred Alternative Dry	Changes Compared to Dry PA		
			Average	Wet	Dry		Average	Wet	Dry		Average	Wet	Dry
			Followed by Average				Followed by Wet				Followed by Dry		
1	CVP Water	19.3	-10.8	-6.4	-5.4	20.5	-13.0	-13.0	-13.0	21.0	-13.5	-13.5	-13.5
	Groundwater	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	-1.5	-1.5	-1.5
2	CVP Water	27.7	0.0	0.0	-21.6	37.1	0.0	0.1	-36.7	8.2	0.0	0.0	0.0
	Groundwater	512.1	0.0	0.0	0.0	506.4	-0.4	-0.5	0.0	584.7	0.0	0.0	0.0
3	CVP Water	170.4	0.0	0.0	0.0	174.2	0.0	0.0	0.0	154.3	0.0	0.0	0.0
	Groundwater	248.9	0.0	0.0	0.0	227.0	-1.8	-1.8	-1.3	355.3	0.0	0.0	0.0
3B	CVP Water	199.6	0.1	0.0	-199.6	227.0	39.3	39.1	-227.0	50.3	0.0	0.0	-0.1
	Groundwater	78.7	-0.1	0.0	0.0	50.4	-38.7	-38.5	99.6	191.9	0.0	0.0	0.0
4	CVP Water	129.8	0.0	0.0	0.0	133.1	0.0	0.0	0.0	113.9	0.0	0.0	0.0
	Groundwater	326.6	0.0	0.0	0.0	305.1	-0.5	-0.5	-0.2	442.8	0.0	0.0	0.0
5	CVP Water	19.9	0.1	0.0	0.1	20.8	0.1	0.0	0.0	17.9	0.0	-0.1	0.0
	Groundwater	492.6	-0.1	0.0	-0.1	449.3	-3.7	-3.6	-3.1	588.7	0.0	0.0	0.0
6	CVP Water	2.2	0.0	0.0	0.0	2.4	0.0	0.0	0.0	1.8	0.0	0.0	0.0
	Groundwater	452.8	0.0	0.0	0.0	447.6	-6.9	-6.9	-6.6	521.0	0.0	0.0	0.0
7	CVP Water	22.0	0.0	0.0	0.0	22.6	0.0	0.0	0.0	19.1	0.0	0.0	0.0
	Groundwater	193.2	0.0	0.0	0.0	177.9	-0.7	-0.7	-0.5	217.5	0.0	0.0	0.0
8	CVP Water	51.6	0.1	0.0	-0.1	79.4	0.1	-0.1	-0.1	25.3	0.0	0.0	-0.1
	Groundwater	756.4	-0.1	0.0	0.1	717.3	0.0	0.0	0.0	851.3	0.0	0.0	0.0
9	CVP Water	28.2	-28.2	-28.2	-28.2	48.1	-48.1	-48.1	-48.1	11.5	-11.5	-11.5	-11.5
	Groundwater	80.3	17.9	17.9	18.7	70.2	35.4	35.4	35.8	100.1	11.5	11.5	11.4
10	CVP Water	183.4	0.0	0.0	-183.4	234.4	-228.4	-22.8	-234.4	92.1	0.0	0.0	0.0
	Groundwater	496.2	0.0	0.0	179.4	414.4	227.7	22.7	233.7	632.4	0.0	0.0	0.0
11	CVP Water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater	34.1	0.0	0.0	0.0	26.8	0.0	0.0	0.0	34.5	0.0	0.0	0.0
12	CVP Water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Groundwater	173.1	0.0	0.0	0.0	141.8	0.0	0.0	0.0	228.2	0.0	0.0	0.0
13	CVP Water	163.6	16.7	16.6	-60.2	159.0	33.2	33.1	-113.1	128.2	0.0	0.0	0.0
	Groundwater	912.5	-16.7	-16.6	60.2	812.0	-36.2	-36.1	109.1	1,181.4	-3.8	-3.8	-3.8
14	CVP Water	524.4	0.1	0.0	0.1	719.0	0.1	0.0	0.0	230.2	0.0	0.0	0.0
	Groundwater	826.3	-0.1	0.0	-0.1	603.6	-0.1	0.0	0.0	1,176.4	0.0	0.0	0.0

TABLE 20 IRRIGATION WATER APPLIED BY SUBREGION

CVPM Subregion	Water Source	Preferred Alternative Average	Changes Compared to Average PA			Preferred Alternative Wet	Changes Compared to Wet PA			Preferred Alternative Dry	Changes Compared to Dry PA		
			Average	Wet	Dry		Average	Wet	Dry		Average	Wet	Dry
			Followed by Average				Followed by Wet				Followed by Dry		
15	CVP Water	35.1	0.0	0.1	0.1	38.1	0.0	0.1	0.0	28.6	0.0	0.0	0.0
	Groundwater	1,276.6	0.0	-0.1	-0.1	1,099.1	0.0	0.0	0.0	1,600.7	0.0	0.0	0.0
16	CVP Water	16.2	-16.2	-16.2	-16.2	15.7	-15.7	-15.7	-15.7	12.9	-12.9	-12.9	-12.9
	Groundwater	49.6	14.9	14.8	15.0	0.0	13.2	13.2	13.2	107.3	11.5	11.5	11.5
17	CVP Water	34.6	3.9	3.8	4.0	32.5	7.4	7.3	7.4	27.1	0.0	0.0	0.1
	Groundwater	415.1	-3.8	-3.8	-3.9	303.2	-7.4	-7.2	-7.4	577.4	0.0	0.0	0.0
18	CVP Water	517.3	0.0	0.0	0.1	526.3	0.0	0.0	0.1	399.0	0.0	0.0	0.1
	Groundwater	1,018.0	0.0	0.0	-0.1	821.8	-4.0	-4.0	-3.8	1,334.9	0.0	0.0	0.0
19	CVP Water	13.3	-0.1	0.0	0.1	15.4	-0.1	-0.1	0.0	9.4	0.0	0.0	-9.4
	Groundwater	366.8	0.1	0.0	-0.1	250.7	0.0	0.0	0.0	578.4	0.0	0.0	9.4
20	CVP Water	208.7	0.1	0.1	-0.2	219.8	0.1	0.1	-0.1	154.1	0.0	0.0	-0.1
	Groundwater	303.6	-0.1	-0.1	0.1	244.8	0.0	0.0	0.0	437.3	0.0	0.0	0.0
21	CVP Water	138.3	0.0	0.0	-0.1	163.0	0.0	0.1	-0.1	89.3	0.0	0.0	-0.1
	Groundwater	579.4	0.0	0.0	0.1	445.2	0.0	-0.1	0.0	783.1	0.0	0.0	0.0
Total	CVP Water	2,505.5	-34.4	-30.4	-510.5	2,888.2	-224.9	-19.8	-680.6	1,593.9	-37.7	-37.8	-47.2
	Groundwater	9,596.5	11.9	12.3	269.2	8,114.6	175.7	-28.8	468.5	12,527.1	17.5	17.5	26.8

Notes:
1. All quantities in thousands of acre-feet
2. A negative value represents a lower quantitity than in the Preferred Alternative
3. Subregions 3 and 3B should be added together to get the complete subregion 3. 3B represents the area within this subregion served by the Tehama Colusa Canal
4. PA is the Preferred Alternative

TABLE 21 SUBREGION ANALYSIS OF SIGNIFICANT CHANGES IN WATER USE

Subregion	Outcome	Explanation
1	Decrease in CVP use and no GW substitution in all sequences	Less CVP water is used than in the Preferred Alternative because the blended price is 140% to 330% higher than the Preferred Alternative Tier 1 (the only tier of water that was used for this scenario). For hydrologic reasons, subregion 1 is restricted from switching to groundwater
2	Decrease in CVP use and no GW substitution in Dry to Average and Dry to Wet sequences	Less CVP water is used than in the Preferred Alternative because the blended prices for the Dry to Average and Dry to Wet sequences are 320% and 345% higher than the Preferred Alternative Tier 1 price (the only water tier that was used for this scenario). For hydrologic reasons, subregion 2 is restricted from switching to groundwater
3B	Decrease CVP and no GW substitution in Dry to Average sequence	Less CVP water is used than in the Preferred Alternative because the blended price is 240% higher than the Tier 1 price from the Preferred Alternative, which is the only tier of water that was used. For hydrologic reasons the region is restricted from switching to groundwater in this long-run scenario
3B	Decrease in CVP use and GW substitution in Dry to Wet sequence	CVP water use decreases because the blended price is 260% higher than the Preferred Alternative Tier 1 price. The model allowed a shift to groundwater on a short run basis to provide water to permanent crops during the wet year when groundwater
3B	Shift from Groundwater to CVP water in Avarage to Wet and Wet to Wet sequences	In the Preferred Alternative wet year analysis subregion 3B has 39 TAF of water that falls in Tiers 2 or 3. Under the LTCR blended pricing mechanism all of the subregions CVP water is prices at a level that is lower than the Preferred Alternative Tier 2. This additional affordable CVP water is used resulting in a less groundwater being pumped.
9	Shift from CVP to Groundwater in all sequences	The blended price of CVP water in subregion 9 is greater than the groundwater pumping cost resulting in the shift from CVP to groundwater
10	Shift from CVP to Groundwater in Dry to Average and Average,Wet and Dry to Wet sequences	Due to an increase in the CVP price relative to the Preferred Alternative, the depth to which groundwater can be affordable pumped increases resulting in the shift from CVP supplies to groundwater
13	Shift from groundwater to CVP in Average to Average, Wet to Aaverage, Average to Wet and Wet to Wet sequences	In the Preferred Alternative Average and Wet conditions subregion 13 had water classified as Tier 2 or Tier 3 which was not affordable, and pumped groundwater to supplement it's Tier 1 supply down to a depth at which it was no longer affordable. In the LTCR sequences, the blended price is less expensive than the Preferred Alternative upper Tier price, therefor a shift is made from the deepest groundwater to

TABLE 21 SUBREGION ANALYSIS OF SIGNIFICANT CHANGES IN WATER USE

Subregion	Outcome	Explanation
13	Shift from CVP to Groundwater in Dry to Average and Dry to Wet sequences	Under the LTCR blended price mechanism, when coming out of a drought into a Average or Wet year the blended price increases. In these situations, shallow groundwater is less expensive than the CVP blended price. As more groundwater is pumped the cost increases as the pump lift increases and the cost eventually becomes greater than the CVP blended price. When this happens the remainder of
16	Shift from CVP to Groundwater in all sequences	The blended price of CVP water in subregion 16 is greater than the groundwater pumping cost resulting in the shift from CVP to groundwater
17	Shift from groundwater to CVP	In the Preferred Alternative Average and Wet conditions this subregion had water classified as Tier 2 or Tier 3 which was not affordable. The subregion pumped groundwater down to a depth at which it was no longer affordable to supplement the CVP water is was able to afford. In the LTCR sequences, the blended price is less expensive than the least expensive CVP tier that was not used, therefor a shift is made from the deepest groundwater to the now affordable CVP supply.
19	Shift from CVP to Groundwater in Dry to Dry sequence	The blended pricing causes the Dry to Dry CVP water cost to rise higher than the groundwater pumping cost resulting in the shift from CVP to groundwater

SECTION 2
MUNICIPAL AND INDUSTRIAL WATER USE ECONOMICS

TABLE 22

SUMMARY OF M&I ECONOMICS ANALYSIS FOR AVERAGE AND DRY YEAR CONDITIONS

Result	Preferred Alternative Average	Change from the Preferred Alternative Average		
		Average-Average	Dry-Average	Wet-Average
Average Condition Supplies, 1,000 acre-feet (1)				
Sacramento Valley	929.0	0.0	0.0	0.0
Bay Area	1024.0	0.0	0.0	0.0
San Joaquin Valley	704.0	0.0	0.0	0.0
Central and South Coast	5921.0	0.0	0.0	0.0
Average Condition Economic Costs, Million $ (2)				
Sacramento Valley	1.1	4.1	4.3	4.1
Bay Area	3.5	4.6	4.6	4.6
San Joaquin Valley	0.3	5.2	5.2	5.2
Central and South Coast	649.0	0.0	0.0	0.0
	Preferred Alternative Dry	**Change from the Preferred Alternative Dry**		
		Average-Dry	Dry-Dry	Wet-Dry
Dry Condition Supplies 1,000 acre-feet (3)				
Sacramento Valley	976.0	0.0	0.0	0.0
Bay Area	832.0	0.0	0.0	0.0
San Joaquin Valley	656.0	0.0	0.0	0.0
Central and South Coast	4987.0	0.0	0.0	0.0
Annual Additional Cost of Dry Condition, Million $ (4)				
Sacramento Valley	11.7	0.0	0.0	0.0
Bay Area	222.0	0.0	0.0	0.0
San Joaquin Valley	19.3	0.0	0.0	0.0
Central and South Coast	1229.8	0.0	0.0	0.0

NOTES:

Water transfers not considered as replacement supplies in this comparison.

(1) After purchase or development of non-transfer replacement supplies to make supply equal demand.

(2) Total costs include replacement supplies, restoration payments and metering. A negative cost means a net gain is estimated.

(3) Before development of any replacement supplies. A positive means the Alternative provides more water supply then the No-Action Alternative.

(4) The annual cost of shortage following the average condition is in addition to the average costs.

SECTION 3
REGIONAL ECONOMICS

REGIONAL ECONOMICS

This analysis identifies the regional economic impacts of two out of the nine total Long Term Contract Renewal sequences; Average-Average, and Dry-Average. The regional economic analysis is restricted to these sequences because they are the only sequences that represent long-run conditions. The Input-Output model used in the regional economic analysis assumes a long run equilibrium is reached, therefore it is inappropriate to model short run responses represented by the Wet and Dry year conditions. While the Dry-Average sequence is not strictly a long-run scenario, as described in the Agricultural and Land Use and Economics section, there are some regions that will be permanently impacted by a five year series of drought years. Because of this the results can be considered long run.

The assumptions and baseline data used in this analysis are the same as what was used in the Preferred Alternative. Tables 23 and 24 show the results of the average-average sequence, Tables 25 and 26 the wet-average sequence, and Tables 27 and 28 the dry-average sequence. Tables 23, 25, and 27 present the impacts by economic sectors that are aggregations of SIC industries. Tables 24, 26, and 28 present the regional economic impacts broken out by the source of the impact including reduced agricultural output, change in farm net incomes, and changes in M&I water costs. Note that regional economic impacts are not reported for the North Coast or the Central and South Coast regions because the rolling five year average tiered pricing mechanism has no impact on these regions.

AVERAGE YEAR FOLLOWING AVERAGE BASE CONDITION

Total impacts of the Average-Average scenario relative to the Preferred Alternative include losses of about 120 jobs, $7.2 million in output, and $3.9 million in PoW income. Table 23 shows the employment, output and income effects on all sectors in each regional economy of the long-term contract renewals. Most of the impacts are felt in the Manufacturing, Trade and Services sectors. These impacts are derived from the impact to net income.

The economic impacts by region from each source can be seen in Table 24. Reduction in net income resulting from changes in CVP water cost, groundwater pumping, irrigation costs and changes in crop prices have the greatest impact at the statewide level.

DRY YEAR FOLLOWING AVERAGE BASE CONDITION

The total impacts to the State economy of the new pricing mechanism when coming out of drought conditions relative the Preferred Alternative include losses of about 2,450 jobs, $206.2 million in output, and $93.1 million in PoW income. Table 27 shows the employment, output and income effects for each regional economy and the State as a whole broken out by the impacted sectors.

Table 28 shows how each of the impact sources contribute to the total impact. The reduction in agricultural output in the Sacramento River region relative to the Preferred Alternative dominates the Statewide impact.

TABLE 23

REGIONAL ECONOMIC IMPACTS ON ALL SECTORS FOR THE AVERAGE TO AVERAGE SEQUENCE COMPARED TO THE PREFERRED ALTERNATIVE AVERAGE

Region Directly Impacted	Impacts on all Sectors					
	Employment (# of jobs)		Output ($MM)		PoW Income ($MM)	
	Direct	Total	Direct	Total	Direct	Total
Sacramento River						
Agriculture						
Reduced Output	-10	-20	-0.5	-1.2	-0.2	-0.6
Reduced Net Income	-20	-50	-0.9	-2.3	-0.5	-1.3
Total Agriculture	-30	-60	-1.4	-3.5	-0.7	-1.9
M&I Water Costs	-60	-130	-3.9	-8.5	-2.0	-4.7
TOTAL 1/	**-90**	**-190**	-5.3	-12.0	-2.8	-6.6
San Joaquin River						
Agriculture						
Reduced Output	0	0	-0.2	-0.3	-0.1	-0.2
Reduced Net Income	20	40	0.8	1.8	0.5	1.0
Total Agriculture	20	30	0.7	1.5	0.4	0.9
M&I Water Costs	-80	-150	-5.0	-9.4	-2.6	-5.1
TOTAL 1/	**-60**	**-120**	-4.3	-7.9	-2.2	-4.2
Tulare Lake						
Agriculture						
Reduced Output	0	0	0.0	0.0	0.0	0.0
Reduced Net Income	-50	-80	-2.1	-4.1	-1.1	-2.2
Total Agriculture	-50	-80	-2.1	-4.1	-1.1	-2.2
M&I Water Costs	0	0	0.0	0.0	0.0	0.0
TOTAL 1/	**-50**	**-80**	-2.1	-4.1	-1.1	-2.2
Bay Area						
Agriculture						
Reduced Output	0	0	0.0	0.0	0.0	0.0
Reduced Net Income	0	-10	-0.2	-0.4	-0.1	-0.2
Total Agriculture	0	-10	-0.2	-0.4	-0.1	-0.2
M&I Water Costs	-60	-130	-4.4	-9.4	-2.4	-5.4
TOTAL 1/	**-60**	**-130**	-4.6	-9.8	-2.5	-5.6
California Total						
Agriculture						
Reduced Output	-10	-20	-0.7	-1.5	-0.3	-0.8
Reduced Net Income	-50	-100	-2.3	-5.0	-1.2	-2.7
Total Agriculture	-60	-120	-3.0	-6.5	-1.6	-3.5
M&I Water Costs	-200	-410	-13.3	-27.4	-7.0	-15.1
TOTAL 1/	**-260**	**-530**	**-16.3**	**-33.9**	**-8.6**	**-18.6**

Note: (1) May differ from sum of elements due to rounding.

TABLE 24

REGIONAL ECONOMIC IMPACT OF THE AVERAGE TO AVERAGE HYDROLOGIC SEQUENCE COMPARED TO THE PREFERRED ALTERNATIVE AVERAGE YEAR CONDITION

Region and Affected Sector	Employment (# of jobs)		Output ($MM)		PoW Income ($MM)	
	Direct	Total	Direct	Total	Direct	Total
Sacramento River						
Agric., Frst., Fish.	-10	-10	-0.4	-0.5	-0.2	-0.3
Mining	0	0	0.0	0.0	0.0	0.0
Construction	0	0	0.0	-0.2	0.0	-0.1
Manufacturing	-10	-20	-1.6	-2.2	-0.6	-0.8
TCU	0	-10	-0.2	-0.9	-0.1	-0.5
Trade	-40	-70	-1.1	-2.1	-0.7	-1.3
FIRE	-10	-20	-0.8	-2.6	-0.5	-1.7
Services	-20	-60	-0.9	-2.8	-0.6	-1.7
Government	0	-10	-0.2	-0.7	-0.1	-0.3
Misc	0	0	0.0	0.0	0.0	0.0
TOTAL/1	**-90**	**-190**	**-5.3**	**-12.0**	**-2.8**	**-6.6**
San Joaquin River						
Agric., Frst., Fish.	0	-10	-0.2	-0.3	-0.1	-0.1
Mining	0	0	-0.1	-0.1	0.0	0.0
Construction	0	0	0.0	-0.1	0.0	-0.1
Manufacturing	-10	-10	-0.8	-1.1	-0.2	-0.3
TCU	0	-10	-0.3	-0.6	-0.2	-0.3
Trade	-10	-30	-0.4	-1.1	-0.2	-0.6
FIRE	-10	-20	-1.1	-2.1	-0.7	-1.3
Services	-30	-50	-1.2	-2.2	-0.7	-1.3
Government	0	0	-0.2	-0.3	-0.1	-0.1
Misc	0	0	0.0	0.0	0.0	0.0
TOTAL/1	**-60**	**-120**	**-4.3**	**-7.9**	**-2.2**	**-4.2**
Tulare Lake						
Agric., Frst., Fish.	0	0	0.0	0.0	0.0	0.0
Mining	0	0	0.0	0.0	0.0	0.0
Construction	0	0	0.0	0.0	0.0	0.0
Manufacturing	-10	-10	-1.0	-1.3	-0.4	-1.3
TCU	0	0	0.0	-0.2	0.0	-0.2
Trade	-40	-50	-1.0	-1.4	-0.7	-1.4
FIRE	0	0	0.0	-0.4	0.0	-0.4
Services	0	-10	0.0	-0.6	0.0	-0.6
Government	0	0	0.0	-0.1	0.0	-0.1
Misc	0	0	0.0	0.0	0.0	0.0
TOTAL/1	**-50**	**-80**	**-2.1**	**-4.1**	**-1.1**	**-4.1**
Bay Area						
Agric., Frst., Fish.	0	0	0.0	-0.1	0.0	0.0
Mining	0	0	0.0	0.0	0.0	0.0
Construction	0	0	0.0	-0.1	0.0	-0.1
Manufacturing	-10	-10	-1.2	-1.9	-0.4	-0.7
TCU	0	-10	-0.3	-0.8	-0.2	-0.4
Trade	-20	-40	-0.9	-1.7	-0.5	-1.0
FIRE	-10	-20	-1.0	-2.3	-0.6	-1.5
Services	-20	-50	-1.1	-2.6	-0.7	-1.6
Government	0	0	-0.2	-0.3	-0.1	-0.1
Misc	0	0	0.0	0.0	0.0	0.0
TOTAL/1	**-60**	**-130**	**-4.6**	**-9.8**	**-2.5**	**-5.6**
California Total						
Agric., Frst., Fish.	-10	-20	-0.6	-0.9	-0.3	-0.5
Mining	0	0	-0.1	-0.1	0.0	0.0
Construction	0	-10	0.0	-0.5	0.0	-0.3
Manufacturing	-30	-50	-4.7	-6.5	-1.6	-3.1
TCU	-10	-20	-0.8	-2.5	-0.4	-1.4
Trade	-110	-190	-3.4	-6.3	-2.2	-4.4
FIRE	-20	-60	-2.9	-7.4	-1.8	-4.9
Services	-70	-180	-3.2	-8.1	-1.9	-5.2
Government	0	-10	-0.6	-1.4	-0.3	-0.7
Misc	0	0	-0.1	-0.1	-0.1	-0.1
TOTAL/1	**-260**	**-530**	**-16.3**	**-33.9**	**-8.6**	**-20.5**

Note:(1) May differ from sum of elements because of rounding

Table 25

REGIONAL ECONOMIC IMPACTS ON ALL SECTORS FOR THE AVERAGE TO WET SEQUENCE COMPARED TO THE PREFERRED ALTERNATIVE AVERAGE

Region Directly Impacted	Impacts on all Sectors					
	Employment (# of jobs)		Output ($MM)		PoW Income ($MM)	
	Direct	Total	Direct	Total	Direct	Total
Sacramento River						
Agriculture						
Reduced Output	0	-10	-0.4	-0.8	-0.2	-0.4
Reduced Net Income	30	50	1.0	2.6	0.5	1.4
Total Agriculture	20	40	0.6	1.8	0.4	1.0
M&I Water Costs	-60	-130	-3.9	-8.5	-2.0	-4.7
TOTAL 1/	**-40**	**-90**	**-3.3**	**-6.7**	**-1.6**	**-3.6**
San Joaquin River						
Agriculture						
Reduced Output	0	0	-0.2	-0.3	-0.1	-0.2
Reduced Net Income	100	170	3.7	8.1	2.1	4.5
Total Agriculture	90	160	3.6	7.8	2.0	4.4
M&I Water Costs	-80	-150	-5.0	-9.4	-2.6	-5.1
TOTAL 1/	**20**	**10**	**-1.4**	**-1.6**	**-0.6**	**-0.7**
Tulare Lake						
Agriculture						
Reduced Output	0	0	0.0	0.0	0.0	0.0
Reduced Net Income	-30	-40	-1.1	-2.1	-0.6	-1.1
Total Agriculture	-30	-40	-1.1	-2.1	-0.6	-1.1
M&I Water Costs	0	0	0.0	0.0	0.0	0.0
TOTAL 1/	**-30**	**-40**	**-1.1**	**-2.1**	**-0.6**	**-1.1**
Bay Area						
Agriculture						
Reduced Output	0	0	0.0	0.0	0.0	0.0
Reduced Net Income	0	0	-0.1	-0.2	0.0	-0.1
Total Agriculture	0	0	-0.1	-0.2	0.0	-0.1
M&I Water Costs	-60	-130	-4.4	-9.4	-2.4	-5.4
TOTAL 1/	**-60**	**-130**	**-4.5**	**-9.6**	**-2.5**	**-5.5**
California Total						
Agriculture						
Reduced Output	0	-10	-0.5	-1.1	-0.2	-0.6
Reduced Net Income	100	180	3.6	8.4	2.0	4.7
Total Agriculture	100	170	3.0	7.3	1.7	4.2
M&I Water Costs	-200	-410	-13.3	-27.4	-7.0	-15.1
TOTAL 1/	**-100**	**-240**	**-10.3**	**-20.1**	**-5.3**	**-11.0**

Note: (1) May differ from sum of elements due to rounding.

TABLE 26

REGIONAL ECONOMIC IMPACT OF THE AVERAGE TO WET HYDROLOGIC SEQUENCE COMPARED TO THE PREFERRED ALTERNATIVE AVERAGE YEAR CONDITION

	Employment (# of jobs)		Output ($MM)		PoW Income ($MM)	
Region and Affected Sector	**Direct**	**Total**	**Direct**	**Total**	**Direct**	**Total**
Sacramento River						
Agric., Frst., Fish.	0	-10	-0.2	-0.3	-0.1	-0.2
Mining	0	0	0.0	0.0	0.0	0.0
Construction	0	0	0.0	-0.1	0.0	-0.1
Manufacturing	0	-10	-0.7	-0.9	-0.2	-0.3
TCU	0	0	-0.2	-0.6	-0.1	-0.3
Trade	0	-10	-0.2	-0.7	0.0	-0.3
FIRE	-10	-20	-0.8	-1.8	-0.5	-1.1
Services	-20	-40	-0.9	-1.9	-0.6	-1.1
Government	0	0	-0.2	-0.5	-0.1	-0.2
Misc	0	0	0.0	0.0	0.0	0.0
TOTAL/1	**-40**	**-90**	**-3.3**	**-6.7**	**-1.6**	**-3.6**
San Joaquin River						
Agric., Frst., Fish.	0	0	-0.1	-0.2	-0.1	-0.1
Mining	0	0	-0.1	-0.1	0.0	0.0
Construction	0	0	0.0	-0.1	0.0	0.0
Manufacturing	10	10	0.6	0.8	0.3	0.4
TCU	0	0	-0.3	-0.4	-0.2	-0.2
Trade	60	60	1.0	1.1	0.8	0.9
FIRE	-10	-10	-1.1	-1.2	-0.7	-0.8
Services	-30	-30	-1.2	-1.2	-0.7	-0.7
Government	0	0	-0.2	-0.2	-0.1	-0.1
Misc	0	0	0.0	0.0	0.0	0.0
TOTAL/1	**20**	**10**	**-1.4**	**-1.6**	**-0.6**	**-0.7**
Tulare Lake						
Agric., Frst., Fish.	0	0	0.0	0.0	0.0	0.0
Mining	0	0	0.0	0.0	0.0	0.0
Construction	0	0	0.0	0.0	0.0	0.0
Manufacturing	0	-10	-0.5	-0.7	-0.2	-0.7
TCU	0	0	0.0	-0.1	0.0	-0.1
Trade	-20	-30	-0.5	-0.7	-0.4	-0.7
FIRE	0	0	0.0	-0.2	0.0	-0.2
Services	0	-10	0.0	-0.3	0.0	-0.3
Government	0	0	0.0	0.0	0.0	0.0
Misc	0	0	0.0	0.0	0.0	0.0
TOTAL/1	**-30**	**-40**	**-1.1**	**-2.1**	**-0.6**	**-2.1**
Bay Area						
Agric., Frst., Fish.	0	0	0.0	-0.1	0.0	0.0
Mining	0	0	0.0	0.0	0.0	0.0
Construction	0	0	0.0	-0.1	0.0	-0.1
Manufacturing	-10	-10	-1.2	-1.9	-0.4	-0.7
TCU	0	-10	-0.3	-0.8	-0.2	-0.4
Trade	-20	-40	-0.8	-1.6	-0.5	-1.0
FIRE	-10	-10	-1.0	-2.2	-0.6	-1.5
Services	-20	-50	-1.1	-2.6	-0.7	-1.6
Government	0	0	-0.2	-0.3	-0.1	-0.1
Misc	0	0	0.0	0.0	0.0	0.0
TOTAL/1	**-60**	**-130**	**-4.5**	**-9.6**	**-2.5**	**-5.5**
California Total						
Agric., Frst., Fish.	-10	-10	-0.4	-0.7	-0.2	-0.3
Mining	0	0	-0.1	-0.1	0.0	0.0
Construction	0	0	0.0	-0.3	0.0	-0.2
Manufacturing	-10	-10	-1.7	-2.7	-0.5	-1.2
TCU	-10	-10	-0.8	-1.8	-0.4	-1.0
Trade	20	-20	-0.5	-1.9	-0.1	-1.2
FIRE	-20	-40	-2.9	-5.5	-1.8	-3.6
Services	-70	-130	-3.2	-5.9	-1.9	-3.8
Government	0	-10	-0.6	-1.0	-0.3	-0.5
Misc	0	0	-0.1	-0.1	-0.1	-0.1
TOTAL/1	**-100**	**-250**	**-10.3**	**-20.1**	**-5.3**	**-12.0**

Note:(1) May differ from sum of elements because of rounding

TABLE 27

REGIONAL ECONOMIC IMPACTS ON ALL SECTORS FOR THE AVERAGE TO DRY SEQUENCE COMPARED TO THE PREFERRED ALTERNATIVE AVERAGE

Region Directly Impacted	Impacts on all Sectors					
	Employment (# of jobs)		Output ($MM)		PoW Income ($MM)	
	Direct	Total	Direct	Total	Direct	Total
Sacramento River						
Agriculture						
Reduced Output	-700	-2240	-92.1	-194.5	-30.8	-86.9
Reduced Net Income	130	240	4.7	12.4	2.6	6.9
Total Agriculture	-570	-2000	-87.4	-182.1	-28.2	-80.0
M&I Water Costs	-60	-140	0.4	-0.9	-0.2	-0.5
TOTAL 1/	**-630**	**-2140**	**-91.8**	**-191.6**	**-30.5**	**-85.2**
San Joaquin River						
Agriculture						
Reduced Output	-10	-20	-0.7	-1.5	-0.3	-0.7
Reduced Net Income	-140	-240	-5.4	-11.7	-3.0	-6.5
Total Agriculture	-150	-270	-6.1	-13.2	-3.3	-7.3
M&I Water Costs	-80	-150	0.0	0.0	0.0	0.0
TOTAL 1/	**-230**	**-420**	**-11.0**	**-22.7**	**-5.9**	**-12.4**
Tulare Lake						
Agriculture						
Reduced Output	0	-10	-0.2	-0.5	-0.1	-0.2
Reduced Net Income	-100	-170	-3.6	-7.1	-1.9	-3.8
Total Agriculture	-100	-170	-3.8	-7.6	-2.0	-4.0
M&I Water Costs	0	0	0.0	0.0	0.0	0.0
TOTAL 1/	**-100**	**-170**	**-4.4**	**-8.8**	**-2.3**	**-4.6**
Bay Area						
Agriculture						
Reduced Output	0	0	0.0	0.0	0.0	0.0
Reduced Net Income	-10	-20	-0.6	-1.4	-0.3	-0.8
Total Agriculture	-10	-20	-0.6	-1.4	-0.3	-0.8
M&I Water Costs	-60	-130	-0.5	-1.1	-0.3	-0.6
TOTAL 1/	**-70**	**-150**	**-5.0**	**-10.8**	**-2.8**	**-6.2**
California Total						
Agriculture						
Reduced Output	-710	-2270	-93.0	-196.5	-31.2	-87.9
Reduced Net Income	-120	-190	-4.8	-7.8	-2.6	-4.1
Total Agriculture	-830	-2460	-97.8	-204.3	-33.8	-92.0
M&I Water Costs	-200	-420	-0.1	-1.9	-0.5	-1.1
TOTAL 1/	**-1030**	**-2880**	**-112.2**	**-233.8**	**-41.4**	**-108.3**

Note: (1) May differ from sum of elements due to rounding.

TABLE 28

REGIONAL ECONOMIC IMPACT OF THE AVERAGE TO DRY HYDROLOGIC SEQUENCE COMPARED TO THE PREFERRED ALTERNATIVE AVERAGE YEAR CONDITION

	Employment (# of jobs)		Output ($MM)		PoW Income ($MM)	
Region and Affected Sector	**Direct**	**Total**	**Direct**	**Total**	**Direct**	**Total**
Sacramento River						
Agric., Frst., Fish.	-450	-630	-26.1	-33.0	-13.4	-16.6
Mining	0	0	0.0	-0.1	0.0	0.0
Construction	0	-30	0.0	-2.1	0.0	-1.2
Manufacturing	-230	-290	-64.9	-73.1	-16.9	-19.8
TCU	0	-120	-0.2	-16.8	-0.1	-7.5
Trade	90	-310	1.6	-13.8	1.2	-8.1
FIRE	-10	-200	-0.9	-22.7	-0.5	-14.6
Services	-20	-500	-1.0	-22.8	-0.6	-13.8
Government	0	-50	-0.2	-7.2	-0.1	-3.5
Misc	0	0	0.0	0.0	0.0	0.0
TOTAL/1	**-630**	**-2130**	**-91.8**	**-191.6**	**-30.5**	**-85.2**
San Joaquin River						
Agric., Frst., Fish.	-10	-20	-0.8	-1.2	-0.4	-0.5
Mining	0	0	-0.1	-0.1	0.0	0.0
Construction	0	0	0.0	-0.3	0.0	-0.1
Manufacturing	-30	-40	-3.8	-5.1	-1.4	-1.9
TCU	0	-10	-0.3	-1.2	-0.2	-0.6
Trade	-140	-210	-3.6	-5.8	-2.4	-3.7
FIRE	-10	-30	-1.1	-4.2	-0.7	-2.7
Services	-30	-100	-1.2	-4.3	-0.7	-2.6
Government	0	-10	-0.2	-0.5	-0.1	-0.2
Misc	0	0	0.0	0.0	0.0	0.0
TOTAL/1	**-230**	**-420**	**-11.0**	**-22.7**	**-5.9**	**-12.4**
Tulare Lake						
Agric., Frst., Fish.	0	-10	-0.3	-0.4	-0.1	-0.4
Mining	0	0	0.0	0.0	0.0	0.0
Construction	0	0	0.0	-0.1	0.0	-0.1
Manufacturing	-20	-20	-2.1	-2.7	-0.7	-2.7
TCU	0	0	0.0	-0.4	0.0	-0.4
Trade	-80	-110	-2.1	-2.9	-1.5	-2.9
FIRE	0	-10	0.0	-0.9	0.0	-0.9
Services	0	-30	0.0	-1.2	0.0	-1.2
Government	0	0	0.0	-0.2	0.0	-0.2
Misc	0	0	0.0	0.0	0.0	0.0
TOTAL/1	**-100**	**-170**	**-4.4**	**-8.8**	**-2.3**	**-8.8**
Bay Area						
Agric., Frst., Fish.	0	0	0.0	-0.1	0.0	0.0
Mining	0	0	0.0	0.0	0.0	0.0
Construction	0	0	0.0	-0.1	0.0	-0.1
Manufacturing	-10	-10	-1.4	-2.2	-0.5	-0.8
TCU	0	-10	-0.3	-0.8	-0.2	-0.4
Trade	-30	-50	-1.1	-2.0	-0.7	-1.3
FIRE	-10	-20	-1.0	-2.4	-0.6	-1.6
Services	-20	-60	-1.1	-2.8	-0.7	-1.8
Government	0	0	-0.2	-0.3	-0.1	-0.2
Misc	0	0	0.0	0.0	0.0	0.0
TOTAL/1	-70	-150	-5.0	-10.8	-2.8	-6.2
California Total						
Agric., Frst., Fish.	-470	-660	-27.2	-34.6	-13.9	-17.5
Mining	0	0	-0.1	-0.2	0.0	-0.1
Construction	0	-40	0.0	-2.6	0.0	-1.5
Manufacturing	-290	-370	-72.2	-83.1	-19.6	-25.2
TCU	-10	-140	-0.8	-19.3	-0.4	-8.9
Trade	-170	-680	-5.0	-24.5	-3.3	-16.0
FIRE	-20	-260	-2.9	-30.2	-1.8	-19.8
Services	-70	-680	-3.3	-31.1	-2.0	-19.3
Government	0	-60	-0.6	-8.2	-0.3	-4.1
Misc	0	0	-0.1	-0.1	-0.1	-0.1
TOTAL/1	-1030	-2880	-112.2	-233.8	-41.4	-112.5

Note:(1) May differ from sum of elements because of rounding

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Appendix B
Common and Scientific Names of Species Cited in the Environmental Assessment

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Table B-1
Common and Scientific Names of Fish Species Cited in the Delta-Mendota Canal Unit Environmental Assessment

Common Name	Scientific Name
Black bullhead	*Ictalurus melas*
Black crappie	*Pomoxis nigromaculatus*
Bluegill	*Lepomis macrochirus*
Brown bullhead	*Ictalurus nebulosus*
Central Valley steelhead	*Oncorhynchus mykiss*
Chinook salmon (winter-, spring-, fall-run)	*Oncorhynchus tshawytscha*
Delta smelt	*Hypomesus transpacificus*
Green sunfish	*Lepomis cyanellus*
Hardhead	*Mylopharodon conocephalus*
Kern brook lamprey	*Lampetra hubbsi*
Lahontan cutthroat trout	*Oncorhynchus clarki henshawi*
Largemouth bass	*Micropterus salmoides*
Paiute cutthroat trout	*Oncorhynchus clarki seleniris*
Rainbow trout (resident and steelhead)	*Oncorhynchus mykiss*
Sacramento pikeminnow (squawfish)	*Ptychocheilus grandis*
Sacramento splittail	*Pogonichthys macrolepidotus*
Sacramento sucker	*Catostomus occidentalis*
Smallmouth bass	*Micropterus dolomieui*
White crappie	*Pomoxis annularis*
Yellow bullhead	*Ictalurus natalis*

Table B-2
Common and Scientific Names of Plant Species
Cited in the Delta-Mendota Canal Unit Environmental Assessment

Common Name	Scientific Name	Growth Habit	Family
Alkali goldenbush	*Isocoma acradenia*	S	Asteraceae
Alkali heath	*Farnkenia salina*	PH	Frankeniaceae
Alkali heliotrope	*Heliotropium curassavicium oculatum*	PH	Hydrophyllaceae
Alkali rubber rabbitbrush	*Chrysothamnus nauseousus hololeucus*	S	Asteraceae
Alkali sacaton	*Sporobolus airoides*	PG	Poaceae
Alkali weed	*Cressa truxillensis vallicola*	PH	Convolvulaceae
Allscale	*Atriplex polycarpa*	S	Chenopodiaceae
Apricot globemallow	*Spharalcea ambigua*	PH	Malvaceae
Arrow weed	*Pluchea sericea*	S	Asteraceae
Arrow-grasses	*Triglochin* spp.	PH	Juncaginaceae
Arroyo willow	*Salix lasiolepis*	T	Salicaceae
Big saltbush	*Atriplex lentiformis lentiformis*	S	Chenopodiaceae
Black willow	*Salix gooddingii variabilis*	T	Salicaceae
Blackberries	*Rubus* spp.	S	Rosaceae
Bladderwort	*Utricularia* spp.	A/PH	Lentibulariaceae
Blue elderberry	*Sambucus mexicana*	S	Caprifoliaceae
Box elder	*Acer negundo californicum*	T	Aceraceae
Bud sagebrush	*Artemisia spinescens*	S	Asteraceae
California oatgrass	*Danthonia californica*	PG	Poaceae
California pipestem clematis	*Clematis ligusticifolia*	PV	Ranunculaceae
California poppy	*Eschscholzia californica californica*	AH	Papaveraceae
California wild grape	*Vitis californica*	PV	Vitaceae
California wild rose	*Rosa californica*	S	Rosaceae
Cattails	*Typha* spp.	PH	Typhaceae
Cheesebush	*Hymenoclea salsola*	S	Asteraceae
Chinese Camp brodiaea	*Brodiaea pallida*	PH	Amaryllidaceae
Clovers	*Trifolium* spp.	PH	Fabaceae
Cocklebur	*Xanthium strumarium canadense*	AH	Asteraceae
Common tule	*Scirpus acutus*		
Cottonwood	*Populus* spp.	T	Salicaceae
Coyote thistles	*Eryngium* spp.	PH	Apiaceae
Creosote bush	*Larrea tridentata*	S	Zygophyllaceae
Delta button-celery	*Eryngium racemosum*	A/PH	Apiaceae
Dove weed	*Eremocarpos setigerus*	AH	Euphorbiaceae
Downingias	*Downingia* spp.	AH	Campanulaceae
Duckweeds	*Lemna* spp.	AH	Lemnaceae
Elderberries	*Sambucus* spp.	S	Capifoliaceae
Fourwing saltbush	*Atriplex canescens canescens*	S	Chenopodiaceae
Fremont cottonwood	*Populus fremontii*	T	Salacaceae
Frement dalea	*Psorothamnus fremontii fremontii*	S	Fabaceae
Goldfields	*Lasthenia* spp.	AH	Asteraceae
Greasewood	*Sacrobatus vermiculatus*	S	Chenopodiaceae

Table B-2
Common and Scientific Names of Plant Species
Cited in the Delta-Mendota Canal Unit Environmental Assessment

Common Name	Scientific Name	Growth Habit	Family
Honeysweet tidestromia	*Tidestromia oblongifolia oblongifolia*	S	Amaranthaceae
Horsetails	*Equisetem* spp.	PH	Equisetaceae
Horseweeds	*Conyza* spp.	AH	Asteraceae
Idaho fescue	*Festuca idahoensis*	PG	Poaceae
Interior live oak	*Quercus wislizenii wislizenii*	T	Fagaceae
Iodine bush	*Allenrolfea occidentalis*	S	Chenopodiaceae
Kidney-leaved buckwheat	*Eriogonum reniforme*	AH	Polygonaceae
Kochia	*Kochia* spp.	S	Chenopodiacea
Long-beaked filaree	*Erodium botrys*	AH	Geraniaceae
Low barley	*Hodeum depressum*	AG	Poaceae
Mariposa lillies	*Calochortus* spp.	PH	Liliaceae
Meadowfoams	*Limnanthes* spp.	AH	Limnanthaceae
Medusa head	*Taeniatherum caput-medusae*	PG	Poaceae
Mistletoe	*Phoradendron* spp.	PH	Viscaceae
Mugwort	*Artemisia douglasiana*	PH	Asteraceae
Mule fat	*Baccharis salicifolia*	S	Asteraceae
Mustards	*Brassica/Hirshfeldia/Sisymbrium* spp.	A/PH	Brassicaceae
Navarretia	*Navarretia* spp.	AH	Polemoniaceae
Nevada tea	*Ephedra nevadensis*	S	Ephedraceae
Northern California black walnut	*Juglans californica hindsii*	T	Juglandaceae
Oregon ash	*Fraxinus latifolia*	T	Oleaceae
Owl's clover	*Castilleja* spp.	AH	Scrophulariaceae
Parry saltbush	*Atriplex parryi*	S	Chenopodiaceae
Pogogyne	*Pogogyne* spp.	AH	Lamiaceae
Poison oak	*Toxicodendron diversilobum*	S/V	Anacariaceae
Pondweeds	*Potamogeton* spp.	PH	Potamogentonaceae
Popcorn flowers	*Plagiobothrys* spp.	AH	Boraginaceae
Purple needlegrass	*Nassella pulchra*	PG	Poaceae
Red brome	*Bromus madritensis rubens*	AG	Poaceae
Red willow	*Salix laevigata*	T	Salicaceae
Redstem filaree	*Erodium cicutarium*	AH	Geraniaceae
Ripgut grass	*Bromus diandrus*	AG	Poaceae
Rose-mallow	*Hibiscus lasiocarpus*	S	Malvaceae
Rushes	*Juncus* spp.	PH	Juncaceae
Sandbar willow	*Salix sessilifolia*	S	Salicaeae
Sedges	*Carex* spp.	PH	Cyperaceae
Shadscale	*Atriplex confertifolia*	S	Chenopodiacea
Slender fescue	*Vulpia bromoides*	AG	Poaceae
Smartweed	*Polygonum* spp	A/PH	Polygonaceae
Soft bird's beak	*Cordylanthus mollis* ssp. *mollis*		
Soft chess	*Bromus hordeaceus*	AG	Poaceae
Spike rushes	*Eleocharis* spp.		

Table B-2
Common and Scientific Names of Plant Species
Cited in the Delta-Mendota Canal Unit Environmental Assessment

Common Name	Scientific Name	Growth Habit	Family
Suisun thistle	*Cirsium hydrophilum* var. *hydrophilum*		
Thistles	*Cirsium* spp.	A/BH	Asteraceae
Torrey blazing star	*Mentzelia torreyi*	PH	Loasaceae
Tree anemone	*Carpenteria californica*	S	Phyladelphaceae
Tules	*Scirpus* spp.	PH	Cyperaceae
Umbrella-sedge	*Cyperus eragrostis*	PH	Cyperaceae
Valley oak	*Quercus lobata*	T	Fagaceae
Valley saltbush	*Atriplex polycarpa*	S	Chenopodiaceae
Verbena	*Verbana* spp.	A/PH	Verbenaceae
Waterlily	*Nymphaea* spp.	PH	Nymphaeaceae
Waterweeds	*Elodea* spp.	PH	Hydrocharitaceae
Water-milfoil	*Myriophyllum* spp.	PH	Haloragidaceae
Western sycamore	*Platanus racemosa*	T	Platanaceae
White alder	*Alnus rhombifolia*	T	Betulaceae
Wild barley	*Hordeum* spp.	AG	Poaceae
Wild oats	*Avena* spp.	AG	Poaceae
Wooley marbles	*Psilocarphus* spp.	AH	Astreraceae
Yerba mansa	*Anemopsis californica*	PH	Saururaceae

Growth habitat definitions:

AF = annual fern	BH = biennial herb	PV = perennial vine
AG = annual grass	PF = perennial fern	S = shrub
AH = annual herb	PG = perennial grass	T = tree
AV = annual vine	PH = perennial herb	

Table B-3
Common and Scientific Names of Wildlife Species
Cited in the Delta-Mendota Canal Unit Environmental Assessment

Common Name	Scientific Name
Invertebrates	
Valley elderberry longhorn beetle	*Desmocercus californicus dimporphus*
Birds	
Acorn woodpecker	*Melanerpes formicivorus*
Aleutian Canada goose	*Branta canadensis leucopareia*
American bittern	*Botaurus lentiginosus*
American crow	*Corvus brachyrhynchos*
American goldfinch	*Carduelis tristis*
American kestrel	*Falco sparverius*
American pipit	*Anthus rubescens*
American robin	*Turdus migratorius*
Anna's hummingbird	*Calypte anna*
Bald eagle	*Haliaeetus leucocephalus*
Bank swallow	*Riparia riparia*
Barn owl	*Tyto alba*
Belted kingfisher	*Ceryle alcyon*
Black-bellied plover	*Pluvialis squatarola*
Black-headed grosbeak	*Pheucticus melanocephalus*
Black-necked stilt	*Himantopus mexicanus*
Black phoebe	*Sayornis nigricans*
Black-shouldered kite	*Elanus caeruleus*
Blue-gray gnatcatcher	*Polioptila carerulea*
Brewer's blackbird	*Euphagus cyanocephalus*
Burrowing owl	*Athene cunicularia*
California clapper rail	*Rallus longirostris*
California gull	*Larus californicus*
California quail	*Callipepla california*
Canada goose	*Branta canadensis*
Cinnamon teal	*Anas cyanoptera*
Common goldeneye	*Bucephala clangula*
Common merganser	*Mergus merganser*
Common raven	*Corvus corax*
Common yellowthroat	*Geothlypis trichas*
Coot	*Fulica americana*
Double-crested cormorant	*Phalacrocorax auritus*
European starling	*Sturnus vulgaris*
Ferruginous hawk	*Buteo regalis*
Great blue heron	*Ardea herodias*
Great egret	*Casmerodius albus*

Table B-3
Common and Scientific Names of Wildlife Species
Cited in the Delta-Mendota Canal Unit Environmental Assessment

Common Name	Scientific Name
Greater white-fronted goose	*Anser albafrons*
Green-backed heron	*Butorides striatus*
Gull ssp.	*Larus* spp.
Horned lark	*Eremophila alpestris*
House finch	*Carpodacus mexicanus*
Killdeer	*Charadrius vociferus*
Kingfisher	*Ceryle alcyon*
Lazuli bunting	*Passerina amoena*
Lesser goldfinch	*Carduelis psaltria*
Lewis' woodpecker	*Melanerpes lewis*
Loggerhead shrike	*Lanius ludovicianus*
Long-billed curlew	*Numenius americanus*
MacGillivary's warbler	*Oporornis tolmiei*
Mallard	*Anas platyrhynchos*
Marsh wren	*Cistothorus palustris*
Mourning dove	*Zenaida macroura*
Northern flicker	*Colaptes auratus*
Northern harrier	*Circus cyaneus*
Northern mockingbird	*Mimus polyglottos*
Northern rough-winged swallow	*Stelgidopteryx serripennis*
Osprey	*Pandion haliaetus*
Pintail	*Anas acuta*
Plain titmouse	*Parus inornatus*
Prairie falcon	*Falco mexicanus*
Red-tailed hawk	*Buteo jamaicensis*
Red-winged blackbird	*Agelaius phoeniceus*
Ring-necked pheasant	*Phasianus colchicus*
Roadrunner	*Geococcyx californicus*
Ross' goose	*Chen rossii*
Rufous-sided towhee	*Pipilo erythrophthalmus*
Sage sparrow	*Amphispiza belli*
Sandhill crane	*Grus canadensis*
Savannah sparrow	*Passerculus sandwichensis*
Say's pheobe	*Sayornis saya*
Scrub jay	*Aphelocoma coerulescens*
Snow goose	*Chen caerulescens*
Snowy egret	*Egretta thula*
Song sparrow	*Melospiza melodia*
Spotted sandpiper	*Actitus macularia*
Swainson's hawk	*Buteo swainsoni*

Table B-3
Common and Scientific Names of Wildlife Species
Cited in the Delta-Mendota Canal Unit Environmental Assessment

Common Name	Scientific Name
Tricolored blackbird	*Agelaius tricolor*
Tree swallow	*Tachycineta bicolor*
Tundra swan	*Cygnus columbianus*
Virginia rail	*Rallus limicola*
Violet-green swallow	*Tachycineta thalassina*
Western flycatcher	*Empidonax difficilis*
Western kingbird	*Tyrannus verticalis*
Western meadowlark	*Sturnella neglecta*
Western yellow-billed cuckoo	*Coccyzus americanus*
White-breasted nuthatch	*Sitta carolinensis*
White-crowned sparrow	*Zonotrichia leucophrys*
White-faced ibis	*Plegadis chihi*
Willow flycatcher	*Empidonz traillii*
Wilson's warbler	*Wilsonia pusilla*
Wood duck	*Aix sponsa*
Yellow warbler	*Dendroica petechia*
Yellow-breasted chat	*Icteria virens*
Yellow-billed magpie	*Pica nuttalli*
Salamanders	
California tiger salamander	*Ambystoma californiense*
Frogs and Toads	
Bullfrog	*Rana catesbeiana*
California red-legged frog	*Rana aurora draytonii*
Pacific tree frog	*Hyla regilla*
Western spadefoot	*Scaphiopus hammondi*
Western toad	*Bufo boreas*
Lizards and Snakes	
Aquatic garter snake	*Thamnophis couchi*
Blunt-nosed leopard lizard	*Gambelia silus*
Common garter snake	*Thamnophis sirtalis*
Common kingsnake	*Lampropeltis getulus*
Giant garter snake	*Thamnophis gigas*
Gopher snake	*Pituophis melanoleucus*
Side-blotched lizard	*Uta stansburiana*
Western fence lizard	*Sceloporus occidentalis*
Western rattlesnake	*Crotalus viridis*
Western whiptail	*Cnemidophorus tigris*

Table B-3
Common and Scientific Names of Wildlife Species
Cited in the Delta-Mendota Canal Unit Environmental Assessment

Common Name	Scientific Name
Mammals	
Badger	*Taxidea taxus*
Beaver	*Castor canadensis*
Black-tailed hare	*Lepus californicus*
Botta's pocket gopher	*Thomomys bottae*
Broad-footed mole	*Scapanus latimanus*
California ground squirrel	*Spermophilus beecheyi*
California vole	*Microtus californicus*
Coyote	*Canis latrans*
Deer mouse	*Peromyscus maniculatus*
Desert cottontail	*Sylvilagus auduboni*
Giant kangaroo rat	*Dipodomys ingens*
Gray fox	*Urocyon cinereoargenteus*
Gray squirrel	*Sciurus griseus*
Heermann kangaroo rat	*Dipodomys heermanni*
Mule deer	*Odocoileus hemionus*
Muskrat	*Ondatra zibethica*
Pocket gopher	*Thomomys* spp.
Pronghorn	*Antilocapra americana*
Raccoon	*Procyon lotor*
Ringtail	*Bassariscus astutus*
Riparian brush rabbit	*Slyvilagus bachmani riparius*
Riparian woodrat	*Neotoma fuscipes riparia*
River otter	*Lutra canadensis*
Salt marsh harvest mouse	*Reithrodontomys raviventis*
San Joaquin antelope squirrel	*Ammospermophilus nelsoni*
Striped skunk	*Mephitis mephitis*
Tule elk	*Cervus canadensis*
Virginia opossum	*Didelphis virginiana*
Western gray squirrel	*Sciurus griseus*
Western harvest mouse	*Reithrodontomys megalotis*
Wild pig	

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Appendix C
List of Preparers

February 2005

LIST OF PREPARERS

LEAD AGENCIES AND STAFF

Preparer	Degree, Experience and Expertise	Contribution
Laura Allen	B.S., Forestry and Outdoor Recreation Management 16 years' experience in NEPA and ESA compliance; 6 years' experience in water development issues.	Review
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Alan Candlish	B.S., Civil Engineering 27 years' experience	Water Resource Planning, Project Management, Review
Sheryl Carter	B.A., Business 7 years' experience in water contracts	Contracts
Siran D. Erysian	B.A., M.A., Geography/GIS 6 years' GIS experience	Map Preparation/GIS
Rosalie Faubion	B.S., M.S., Wildlife Biology 24 years' experience as a biologist; 9 years' experience as a program manager/biologist	Wildlife Biology; Fisheries Biology
Buford Holt	Ph.D., Botany and Plant Pathology 32 years' experience in environmental review and assessment	Project Management, Review
Mary H. Johannis, P.E.	B.S., Civil Engineering 21 years' experience in water needs assessments	Review

Frank Michny	M.S., Biological Sciences 28 years' experience in fish/wildlife and environmental compliance; 11 years' experience and expertise in procedural/legal requirements of NEPA and ESA	Review
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Lynne Silva	5 years' experience in NEPA and ESA	Review
Tracy Slavin	M.S., Agriculture 24 years' experience in water conservation issues	Water Needs Assessments
Russell Smith	B.S., Civil Engineering 25 years' experience in water resources and environmental requirements	Review
Judi Tapia	B.S., Civil Engineering 5 years' experience with Reclamation-NEPA and Contracts	Project Management
Joe Thompson	B.S., Wildlife Management 4 years' experience in wildlife ecology, ESA, and NEPA	NEPA and ESA Lead
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Kathy Wood	B.S., Biology 28 years' experience in wildlife management, ESA, and NEPA	Review
David K. Young	M.A., Biology 20 years' experience in natural resources management	Review

EA PREPARERS

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Amy Cuellar Navigant Consulting, Inc.	B.S. Food Science 12 years' experience in land use, public land use planning, CEQA/NEPA project management	Land Use Public Health/ Mosquitoes Other Considerations
Steve Hatchett CH2M Hill	Ph.D., Agricultural Economics M.A., Environmental Administration B.S., Forestry 22 years' experience	Agricultural Economics
Allan Highstreet CH2M Hill	M.S., Agricultural Economics B.S., Agricultural Business Resources Management 23 years' experience	Economics
Susan Lamb Bookman-Edmonston	30 years' experience in document preparation, copy editing, and word processing	Document Coordination Copy Editing and Word Processing
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Preparer/Firm	Degree, Experience and Expertise	Contribution
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Lisa Stultz Bookman-Edmonston	B.S., Environmental Science 5 years' experience in geographic information services, project analysis and support, and environmental support	GIS Services
Don Wagenet Navigant Consulting, Inc.	B.S., M.S., and M.B.A. 25 years' experience in CEQA, NEPA, water resources, flood control, EIR/EIS project management	Project Management NEPA Analysis Executive Summary
Fatuma Yusuf CH2M Hill	Ph.D. candidate, Economics M.S., B.S., Agricultural Economics 4 years' experience	Economics

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Appendix D
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DELTA-MENDOTA CANAL UNIT

ENVIRONMENTAL ASSESSMENT
LONG-TERM CONTRACT RENEWAL

Appendix E
Distribution List

February 2005

DISTRIBUTION LIST

Banta-Carbona Irrigation District
PO Box 299
Tracy CA 95378-0299

Broadview Water District
PO Box 95
Firebaugh CA 93622

Centinella Water District
PO Box 98
Westley, California

City of Tracy
325 East 10th Street
Tracy CA 95376

Coehlo Family Trust
5494 West Mount Whitney Avenue
Riverdale CA 93656

Del Puerto Water District
PO Box 98
Westley CA 95387

Eagle Field Water District
51170 West Althea
Firebaugh CA 93622

Fresno Slough Water District
PO Box 689
Tranquility CA 93668

James Irrigation District
PO Box 757
San Joaquin CA 93660-0757

Laguna Water District
PO Box 305
Dos Palos CA 93620

Mercy Springs Water District
52027 West Althea Avenue
Firebaugh CA 93622

Oro Loma Water District
PO Box 92
South Dos Palos CA 93655

Patterson Water District
PO Box 685
Patterson CA 95363

Plain View Water District
6715 South Tracy Boulevard
Tracy CA 95376

Reclamation District No. 1606
PO Box 757
San Joaquin CA 93660-0757

Westside Irrigation District
PO Box 177
Tracy CA 95378-0177

Tranquillity Irrigation District
PO Box 487
Tranquillity CA 93668

West Stanislaus Irrigation District
PO Box 37
Westley CA 95387

Widren Water District
PO Box 20
Stockton CA 95201

Editor, Spillway
PO Box 8362
Berkeley CA 94707-8362

Northwest Economic Associates
PO Box 5129
Fair Oaks CA 95628

Provost & Pritchard Engineering Group
286 West Cromwell Avenue
Fresno CA 93711-6162

Natural Resources Defense Council
71 Stevenson Street, Suite 1825
San Francisco CA 94105

University of California, Davis
455 Schooner Ridge Drive
Dixon CA 95620

State Attorney General's Office
Land Law Section
1515 Clay Street - 20th Floor
Oakland CA 94612

Griswold LaSalle Cobb Dowd & Gin, L.L.P.
PO Box 330
Hanford CA 93232

CALFED Bay-Delta Program
1416 9th Street
Sacramento CA 95814

U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco CA 94105-3901

U.S. Fish and Wildlife Service
2800 Cottage Way
Sacramento CA 95825

California State Clearinghouse
1400 10th Street
Sacramento CA 958214

California Dept. of Water Resources
1416 9th Street
Sacramento CA 95814

State Water Resources Control Board
901 P Street
Sacramento CA 95814

California Department of Fish and Game
1416 Ninth Street
Sacramento CA 95814

National Marine Fisheries Service
Central Valley Team Leader
650 Capitol Mall, Suite 6070
Sacramento CA 96814-4706

Regional Administrator
National Marine Fisheries Service
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach CA 90802-4213

Office of the Solicitor
Pacific Southwest Region
2800 Cottage Way
Sacramento CA 95825

Western Area Power Administration
114 Parkshore Drive
Folsom CA 95630

County of Fresno
2220 Tulare Street
Fresno CA 93721

Linneman Burgess Telles Van Atta & Vierra
PO Box 156
Dos Palos CA 93620

Kronick Moskovitz Tiedemann & Girard
1800 30th Street, Suite 320
Bakersfield CA 93301

Herum Crabtree Brown
2291 West March Lane, B100
Linden CA 95236

Duane Morris
100 Spear Street, #1500
San Francisco CA 94105

Westlands Water District
PO Box 6056
Fresno CA 93703

Downey Brand Seymour & Rohwer
555 Capitol Mall
Sacramento CA 95814-4686

Henry Logolusa & Blum
441-C South Madera Avenue
Kerman CA 93630

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose CA 95118

SMUD
PO Box 15830
Sacramento CA 95852-1830

Kleinschmidt
133 L Street Suite C
Sacramento CA 95814

Trinity County Natural Resources
PO Box 156
Hayfork CA 96041-0156

James Diedrich Farms
PO Box 805
Firebaugh CA 93622

Consultant
2021 Driftwood Circle
El Dorado Hills CA 96762

United States Department of the Interior

FISH AND WILDLIFE SERVICE

San Luis National Wildlife Refuge Complex
Post Office Box 2176
Los Banos, California 93635

10 December 2004

Mr. Joe Thompson
U. S. Bureau of Reclamation
South-Central California Area Office
1243 N Street
Fresno, CA 93721

Re: Comments on *Draft Environmental Assessment (EA) and the Draft Finding of No Significant Impact (FONSI) for the proposed long-term Central Valley Project (CVP) water service contracts between Reclamation and the 20 Delta-Mendota Canal (DMC) Unit Contractors*

Dear Mr. Thompson:

The San Luis National Wildlife Refuge Complex has reviewed this EA in relation to the wetlands of the refuges and conservation easements within this Complex. The EA is well-organized and provides a good summary and evaluation of the proposed action. *Chapter 1. Purpose and Need* provides a good background summary of the CVP history that helps establish the purpose and need for renewal of long-term water contracts with the 20 contractors of the DMC Unit. The EA acknowledges that a fundamental understanding of the CVPIA is necessary to review this EA. This introductory chapter refers to refuge/wetland water supplies as not relevant to the proposed action. As part of the extensive background discussion, major emphasis is placed on discussing efforts to protect fishery resources. This is expected due to use of CVP water supplies and the relationship to other CVP operations and activities.

Chapter 2. Description of Alternatives provides a good discussion of each water district and its water needs as well as a good comparison table of contract provisions considered in the alternatives. *Chapter 3. Affected Environment, Environmental Consequences, and Environmental Commitments* provides a thorough summary description of each water district. The Biological resources analysis summary contains a summary discussion of wetlands which includes "Significant Natural Areas" within or located near the EA study area. These include: Lower and Upper Cottonwood Creek Wildlife Management Areas (WMA), Mendota WMA, Los Banos WMA, Merced National Wildlife Refuge (NWR), North Grasslands WMA, San Luis NWR, San Joaquin River NWR, and Volta WMA. Clarification is needed in these discussion regarding water sources for management. It should be noted that all the areas discussed – except Lower and Upper Cottonwood Creek WMA and San Joaquin River NWR -- are authorized and receive CVP water supplies to meet Level 2 requirements, in accordance with the CVPIA. An EA prepared by Reclamation for long-term water supply contracts/agreements for these refuges was completed in November 2000 and should have been reviewed and referenced by the preparers of this EA. Also the Grassland Water District -- the largest area of contiguous, privately-owned wetlands in California -- was not included in the wetlands discussion. The District is a significant natural area, as recognized by several international organizations; and is located within the area discussed in the EA.

The discussion of recreation resources was reviewed relative to the managed wetlands. As the water supplies to be provided under the long-term contract renewal do not change from historic deliveries of previous contracts, the impact to recreation activities on the wetlands/refuges is not expected to be impacted by the proposed action. This would be consistent with the overall FONSI. The summary discussion of the analysis conducted for the EA is sufficient to support a Finding of No Significant Impact (FONSI).

Thank you for the opportunity to comment on this EA and FONSI.

Sincerely,

Kim Forrest
Refuge Manager

Cc: Dan Walsworth, Refuge Supervisor; California/Nevada Operations Office; FWS
Don Marciochi, Manager; Grassland Water District
Susan Jones, Branch Chief, San Joaquin Valley Branch; Endangered Species Division; Sacramento Fish and Wildlife Office; FWS
Dale Garrison, Biologist, Implementation Branch; Project Implementation Division; Sacramento Fish and Wildlife Office; FWS
Roger Guinee, Division Chief, Water Operations Division; Sacramento Fish and Wildlife Office; FWS