

**APPENDIX A**  
**SPECIAL-STATUS SPECIES**

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APPENDIX A

# Special-Status Species of Fresno, Kern, Kings, and Tulare Counties (Valley Floor Portion)

Sensitive species that may occur in or be affected by projects on the valley floor portion of Fresno, Kern, Kings, and Tulare Counties.

Common Name	Scientific Name	Federal Status	State Status
<b>FRESNO COUNTY</b>			
<b>Listed Species</b>			
<b>Plants</b>			
Greene's Orcutt Grass	<i>Tuctoria greenei</i>	E	SC
Hartweg's Golden Sunburst	<i>Pseudobahia bahiifolia</i>	E	E
San Joaquin Adobe Sunburst	<i>Pseudobahia piersonii</i>	T	E
Hoover's Woolly-star	<i>Eriastrum hooveri</i>	T	None
San Joaquin Woollythreads	<i>Lembertia congdonii</i>	E	None
California Jewelflower	<i>Caulanthus californicus</i>	E	E
Palmate-bracted Bird's Beak	<i>Cordylanthus palmatus</i>	E	E
<b>Invertebrates</b>			
Vernal Pool Fairy Shrimp	<i>Branchinecta lynchi</i>	T	SC
Vernal Pool Tadpole Shrimp	<i>Lepidurus packardii</i>	E	SC
Valley Longhorn Elderberry Beetle	<i>Desmocerus californicus dimorphus</i>	T	None
<b>Reptiles</b>			
Blunt-nosed Leopard Lizard	<i>Gambelia silus</i>	E	
Giant Garter Snake	<i>Thamnophis gigas</i>	T	T
<b>Birds</b>			
Bald Eagle	<i>Haliaeetus leucocephalus</i>	FPD	E
Swainson's Hawk	<i>Buteo swainsoni</i>	None	T
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	Delisted	E
Least Bell's Vireo	<i>Vireo bellii pusillus</i>	E	E
<b>Mammals</b>			
Giant Kangaroo Rat	<i>Dipodomys ingens</i>	E	E
Fresno Kangaroo Rat	<i>Dipodomys nitratoides exilis</i>	E	E
San Joaquin Kit Fox	<i>Vulpes macrotis mutica</i>	E	T
<b>Species of Concern</b>			
<b>Invertebrates</b>			
Hoppings Blister Beetle	<i>Lytta hoppingi</i>	SC	None
<b>Amphibians</b>			
California Tiger Salamander	<i>Ambystoma californiense</i>	FC	SC
Western Spadefoot	<i>Scaphiopus hammondi</i>	None	SC
<b>Reptiles</b>			
Western Pond Turtle	<i>Clemmys marmorata</i>	None	SC
California Horned Lizard	<i>Phrynosoma coronatum frontale</i>	None	SC
California Legless Lizard	<i>Anniella pulchra</i>	None	SC
San Joaquin Coachwhip	<i>Masticophis flagellum ruddocki</i>	None	SC
<b>Birds</b>			
American White Pelican	<i>Pelecanus erythrorhynchos</i>	None	SC
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	None	SC
White-faced Ibis	<i>Plegadis chihi</i>	None	SC
Osprey	<i>Pandion haliaetus</i>	None	SC
Northern Harrier	<i>Circus cyaneus</i>	None	SC
Sharp-shinned hawk	<i>Accipiter striatus</i>	None	SC
Cooper's Hawk	<i>Accipiter cooperii</i>	None	SC
Ferruginous Hawk	<i>Buteo regalis</i>	None	SC
Golden Eagle	<i>Aquila chrysaetos</i>	None	SC
Merlin	<i>Falco columbarius</i>	None	SC

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**Special-Status Species of Fresno, Kern, Kings, and Tulare Counties (Valley Floor Portion)**

Common Name	Scientific Name	Federal Status	State Status
Prairie Falcon	<i>Falco mexicanus</i>	None	SC
Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	None	SC
Mountain Plover	<i>Charadrius montanus</i>	FC	SC
Long-billed Curlew	<i>Numenius americanus</i>	None	SC
California Gull	<i>Larus californicus</i>	None	SC
Burrowing Owl	<i>Athene cunicularia</i>	None	SC
Long-eared Owl	<i>Asio otus</i>	None	SC
Short-eared Owl	<i>Asio flammeus</i>	None	SC
Loggerhead Shrike	<i>Lanius ludovicianus</i>	None	SC
California Horned Lark	<i>Eremophila alpestris actia</i>	None	SC
Yellow Warbler	<i>Dendroica petechia</i>	None	SC
Yellow-breasted Chat	<i>Icteria virens</i>	None	SC
Tricolored Blackbird	<i>Agelaius tricolor</i>	None	SC
<b>Mammals</b>			
Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>	None	SC
Pallid Bat	<i>Antrozous pallidus</i>	None	SC
California Mastiff Bat	<i>Eumops perotis californicus</i>	None	SC
Short-nosed Kangaroo Rat	<i>Dipodomys nitratoides brevinasus</i>	None	SC
Tulare Grasshopper Mouse	<i>Onychomys torridus ramona tularensis</i>	None	SC
<b>KERN COUNTY</b>			
Listed Species			
Plants			
San Joaquin Adobe Sunburst	<i>Pseudobahia piersonii</i>	T	E
Hoover's Woolly-star	<i>Eriastrum hooveri</i>	T	None
Bakersfield Cactus	<i>Opuntia treleasei</i>	E	E
San Joaquin Woollythreads	<i>Lembertia congdonii</i>	E	None
California Jewelflower	<i>Caulanthus californicus</i>	E	E
Kern Mallow	<i>Eremalche kernensis</i>	E	None
<b>Invertebrates</b>			
Valley Longhorn Elderberry Beetle	<i>Desmocerus californicus dimorphus</i>	T	None
<b>Reptiles</b>			
Blunt-nosed Leopard Lizard	<i>Gambelia silus</i>	E	E
Giant Garter Snake	<i>Thamnophis gigas</i>	T	T
<b>Birds</b>			
California Condor	<i>Gymnogyps californianus</i>	E	E
Swainson's Hawk	<i>Buteo swainsoni</i>	None	T
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	Delisted	E
Least Bell's Vireo	<i>Vireo bellii pusillus</i>	E	E
<b>Mammals</b>			
Giant Kangaroo Rat	<i>Dipodomys ingens</i>	E	E
San Joaquin Kit Fox	<i>Vulpes macrotis mutica</i>	E	T
<b>Species of Concern</b>			
Invertebrates			
Molestan Blister Beetle	<i>Lytta Molesta</i>	SC	None
<b>Amphibians</b>			
California Tiger Salamander	<i>Ambystoma californiense</i>	FC	SC
Western Spadefoot	<i>Scaphiopus hammondi</i>	None	SC
<b>Reptiles</b>			
Western Pond Turtle	<i>Clemmys marmorata</i>	None	SC
California Horned Lizard	<i>Phrynosoma coronatum frontale</i>	None	SC
California Legless Lizard	<i>Anniella pulchra</i>	None	SC
San Joaquin Coachwhip	<i>Masticophis flagellum ruddocki</i>	None	SC

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**Special-Status Species of Fresno, Kern, Kings, and Tulare Counties (Valley Floor Portion)**

Common Name	Scientific Name	Federal Status	State Status
<b>Birds</b>			
American White Pelican	<i>Pelecanus erythrorhynchos</i>	None	SC
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	None	SC
White-faced Ibis	<i>Plegadis chihi</i>	None	SC
Osprey	<i>Pandion haliaetus</i>	None	SC
Northern Harrier	<i>Circus cyaneus</i>	None	SC
Sharp-shinned hawk	<i>Accipiter striatus</i>	None	SC
Cooper's Hawk	<i>Accipiter cooperii</i>	None	SC
Ferruginous Hawk	<i>Buteo regalis</i>	None	SC
Golden Eagle	<i>Aquila chrysaetos</i>	None	SC
Merlin	<i>Falco columbarius</i>	None	SC
Prairie Falcon	<i>Falco mexicanus</i>	None	SC
Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	None	SC
Mountain Plover	<i>Charadrius montanus</i>	FC	SC
Long-billed Curlew	<i>Numenius americanus</i>	None	SC
California Gull	<i>Larus californicus</i>	None	SC
Burrowing Owl	<i>Athene cunicularia</i>	None	SC
Long-eared Owl	<i>Asio otus</i>	None	SC
Short-eared Owl	<i>Asio flammeus</i>	None	SC
Loggerhead Shrike	<i>Lanius ludovicianus</i>	None	SC
California Horned Lark	<i>Eremophila alpestris actia</i>	None	SC
Yellow Warbler	<i>Dendroica petechia</i>	None	SC
Yellow-breasted Chat	<i>Icteria virens</i>	None	SC
Tricolored Blackbird	<i>Agelaius tricolor</i>	None	SC
<b>Mammals</b>			
Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>	None	SC
California Mastiff Bat	<i>Eumops perotis californicus</i>	None	SC
Short-nosed Kangaroo Rat	<i>Dipodomys nitratoides brevinasus</i>	None	SC
Tulare Grasshopper Mouse	<i>Onychomys torridus ramona tularensis</i>	None	SC
<b>KINGS COUNTY</b>			
Listed Species			
Plants			
Hoover's Woolly-star	<i>Eriastrum hooveri</i>	T	None
San Joaquin Woollythreads	<i>Lembertia congdonii</i>	E	None
California Jewelflower	<i>Caulanthus californicus</i>	E	E
<b>Invertebrates</b>			
Valley Longhorn Elderberry Beetle	<i>Desmocerus californicus dimorphus</i>	T	None
<b>Reptiles</b>			
Blunt-nosed Leopard Lizard	<i>Gambelia silus</i>	E	E
Swainson's Hawk	<i>Buteo swainsoni</i>	None	T
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	Delisted	E
Least Bell's Vireo	<i>Vireo bellii pusillus</i>	E	E
<b>Mammals</b>			
Giant Kangaroo Rat	<i>Dipodomys ingens</i>	E	E
Fresno Kangaroo Rat	<i>Dipodomys nitratoides exilis</i>	E	E
Tipton Kangaroo Rat	<i>Dipodomys nitratoides nitratoides</i>	E	E
San Joaquin Kit Fox	<i>Vulpes macrotis mutica</i>	E	T
<b>Species of Concern</b>			
Amphibians			
Western Spadefoot	<i>Scaphiopus hammondi</i>	None	SC
<b>Reptiles</b>			
Western Pond Turtle	<i>Clemmys marmorata</i>	None	SC
California Horned Lizard	<i>Phrynosoma coronatum frontale</i>	None	SC

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**Special-Status Species of Fresno, Kern, Kings, and Tulare Counties (Valley Floor Portion)**

Common Name	Scientific Name	Federal Status	State Status
California Legless Lizard	<i>Anniella pulchra</i>	None	SC
<b>Common Name</b>	<b>Scientific Name</b>	<b>Federal Status</b>	<b>State Status</b>
San Joaquin Coachwhip	<i>Masticophis flagellum ruddocki</i>	None	SC
<b>Birds</b>			
American White Pelican	<i>Pelecanus erythrorhynchos</i>	None	SC
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	None	SC
White-faced Ibis	<i>Plegadis chihi</i>	None	SC
Osprey	<i>Pandion haliaetus</i>	None	SC
Northern Harrier	<i>Circus cyaneus</i>	None	SC
Sharp-shinned hawk	<i>Accipiter striatus</i>	None	SC
Cooper's Hawk	<i>Accipiter cooperii</i>	None	SC
Ferruginous Hawk	<i>Buteo regalis</i>	None	SC
Golden Eagle	<i>Aquila chrysaetos</i>	None	SC
Merlin	<i>Falco columbarius</i>	None	SC
Prairie Falcon	<i>Falco mexicanus</i>	None	SC
Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	None	SC
Mountain Plover	<i>Charadrius montanus</i>	FC	SC
Long-billed Curlew	<i>Numenius americanus</i>	None	SC
California Gull	<i>Larus californicus</i>	None	SC
Burrowing Owl	<i>Athene cunicularia</i>	None	SC
Long-eared Owl	<i>Asio otus</i>	None	SC
Short-eared owl	<i>Asio flammeus</i>	None	SC
Loggerhead Shrike	<i>Lanius ludovicianus</i>	None	SC
California Horned Lark	<i>Eremophila alpestris actia</i>	None	SC
Yellow Warbler	<i>Dendroica petechia</i>	None	SC
Tricolored Blackbird	<i>Agelaius tricolor</i>	None	SC
<b>Mammals</b>			
Pallid Bat	<i>Antrozous pallidus</i>	None	SC
<b>TULARE COUNTY</b>			
<b>Listed Species</b>			
<b>Plants</b>			
San Joaquin Adobe Sunburst	<i>Pseudobahia piersonii</i>	T	E
Greene's Orcutt Grass	<i>Tuctoria greenei</i>	E	SC
Hoover's Woolly-star	<i>Eriastrum hooveri</i>	T	None
San Joaquin Woollythreads	<i>Lembertia congdonii</i>	E	None
California Jewelflower	<i>Caulanthus californicus</i>	E	E
Hoover's Spurge	<i>Chamaesyce hooveri</i>	T	None
<b>Invertebrates</b>			
Vernal Pool Fairy Shrimp	<i>Branchinecta lynchi</i>	T	SC
Vernal Pool Tadpole Shrimp	<i>Lepidurus packardi</i>	E	SC
Valley Longhorn Elderberry Beetle	<i>Desmocerus californicus dimorphus</i>	E	None
<b>Reptiles</b>			
Blunt-nosed Leopard Lizard	<i>Gambelia silus</i>	E	E
Giant Garter Snake	<i>Thamnophis gigas</i>	E	T
<b>Birds</b>			
California Condor	<i>Gymnogyps californianus</i>	E	E
Bald Eagle	<i>Haliaeetus leucocephalus</i>	FPD	E
Swainson's Hawk	<i>Buteo swainsoni</i>	None	T
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	Delisted	E
Least Bell's Vireo	<i>Vireo bellii pusillus</i>	E	E

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**Special-Status Species of Fresno, Kern, Kings, and Tulare Counties (Valley Floor Portion)**

Common Name	Scientific Name	Federal Status	State Status
<b>Mammals</b>			
Tipton Kangaroo Rat	<i>Dipodomys nitratooides nitratooides</i>	E	E
San Joaquin Kit Fox	<i>Vulpes macrotis mutica</i>	E	T
<b>Species of Concern</b>			
Hoppings Blister Beetle	<i>Lytta hoppingi</i>	SC	None
Molestan Blister Beetle	<i>Lytta molesta</i>	SC	None
<b>Amphibians</b>			
California Tiger Salamander	<i>Ambystoma californiense</i>	FC	SC
Western Spadefoot	<i>Scaphiopus hammondi</i>	None	SC
<b>Reptiles</b>			
Western Pond Turtle	<i>Clemmys marmorata</i>	None	SC
California Horned Lizard	<i>Phrynosoma coronatum frontale</i>	None	SC
California Legless Lizard	<i>Anniella pulchra</i>	None	SC
San Joaquin Coachwhip	<i>Masticophis flagellum ruddocki</i>	None	SC
<b>Birds</b>			
American White Pelican	<i>Pelecanus erythrorhynchos</i>	None	SC
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	None	SC
White-faced Ibis	<i>Plegadis chihi</i>	None	SC
Osprey	<i>Pandion haliaetus</i>	None	SC
Northern Harrier	<i>Circus cyaneus</i>	None	SC
Cooper's Hawk	<i>Accipiter cooperii</i>	None	SC
Ferruginous Hawk	<i>Buteo regalis</i>	None	SC
Golden Eagle	<i>Aquila chrysaetos</i>	None	SC
Merlin	<i>Falco columbarius</i>	None	SC
Prairie Falcon	<i>Falco mexicanus</i>	None	SC
Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	None	SC
Mountain Plover	<i>Charadrius montanus</i>	FC	SC
Long-billed Curlew	<i>Numenius americanus</i>	None	SC
California Gull	<i>Larus californicus</i>	None	SC
Burrowing Owl	<i>Athene cunicularia</i>	None	SC
Long-eared Owl	<i>Asio otus</i>	None	SC
Short-eared owl	<i>Asio flammeus</i>	None	SC
Loggerhead Shrike	<i>Lanius ludovicianus</i>	None	SC
California Horned Lark	<i>Eremophila alpestris actia</i>	None	SC
Yellow Warbler	<i>Dendroica petechia</i>	None	SC
Yellow-breasted Chat	<i>Icteria virens</i>	None	SC
<b>Mammals</b>			
Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>	None	SC
Pallid Bat	<i>Antrozous pallidus</i>	None	SC
Tulare Grasshopper Mouse	<i>Onychomys torridus ramona tularensis</i>	None	SC

Note:

Federal and California State Status:

- (E) Endangered: Listed as being in danger of extinction.
- (T) Threatened: Listed as likely to become endangered within the foreseeable future.
- (SC) Species of Concern.
- (FC) Federal Candidate Species.
- (FPD) Proposed for Delisting.

**APPENDIX B**

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**2001 BIOLOGICAL OPINION SUMMARY**

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## **BIOLOGICAL OPINION SUMMARY FOR CVP WATER CONTRACT RENEWALS FOR THE CROSS VALLEY CONTRACTORS**

On January 19, 2001, the U.S. Fish and Wildlife Service (Service) transmitted its final Biological Opinion addressing Reclamation's long-term contract renewal (LTCR) of the Friant Division and Cross Valley contractor (CVC) contracts of the Central Valley Project. The LTCRs were provided for in the Central Valley Project Improvement Act (CVPIA). The CVPIA objective is the renewal of the CVCs long-term water service contracts, consistent with Reclamation authority and all applicable State and Federal laws, including the CVPIA (H.R. 429, Public Law 102-575). Section 3404(c) of the CVPIA identifies a 25-year upper limit for long-term irrigation repayment and water service contracts within the CVP.

The biological opinion analyzes the reasonably foreseeable effects of implementing a 25-year LTCR, from the year 2001 to 2025. A non-jeopardy opinion was issued by the Service for the continued existence of the species in the Friant Division and CVC service area. Included in this opinion were a number of commitments and conservation measures made by Reclamation and the Service to address concerns relative to listed species, along with other impacts resulting from past and continuing actions related to contract renewal, Section 7(a)(1) activities, and other authorities.

The Biological Opinion covers 35 federally listed species, four proposed species, and three candidate species. With the exception of the California condor, Buena Vista Lake shrew, California red-legged frog, California tiger salamander, mountain yellow-legged frog, and Yosemite toad, all the species were included in the 1991 Friant opinion and interim opinions.

### **NEW AND CONTINUING COMMITMENTS**

Since 1991 Friant opinion, there has been three interim water contract renewal opinions and the 2000 Programmatic CVPIA opinion. Reclamation and the Service are committed to these long- and short-term actions for a comprehensive species recovery approach. These commitments included mitigation / conservation measures, Reasonable and Prudent Measures, and Terms and Conditions from prior related consultations. The Service concluded that after reviewing the environmental baseline, the proposed long-term renewal contracts, cumulative effects, and these commitments, a non-jeopardy opinion was issued. The new and continuing commitments applied to this opinion are summarized and tabulated below. Details on the status and on-going commitments by Reclamation and the Service are provided in the 2001 Friant Division and CVC biological opinion (January 19, 2001).



<b>Biological Opinions</b>				<b>Summary of New and Continuing Commitments Associated with Renewal of Friant Division and Cross Valley Unit CVP Water Contracts</b>
<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	
<b>0</b>	<b>9</b>	<b>9</b>	<b>9</b>	
<b>0</b>	<b>9</b>	<b>9</b>	<b>9</b>	
<b>0</b>	<b>8</b>	<b>5</b>	<b>1</b>	
x	x	x	x	1. Develop a Critical Needs Plan identifying lands requiring immediate protection.
			x	2. Assist the Service to develop and implement a Comprehensive Recovery Plan for all listed endangered species in the San Joaquin Valley.
			x	3. Develop a cooperative agreement to include all entities whose activities affect listed species in the San Joaquin Valley.
x	x	x	x	4. Issue notice of ESA requirements to CVP water contractors.
x	x	x	x	5. Identify and map endangered species habitat in CVP contractor service areas and provide to contractors.
x	x	x	x	6. Monitor land use change and ongoing activities within Districts receiving CVP water.
x	x	x	x	7. Landowners obtain Service/Reclamation approval prior to taking actions on endangered species habitat with no Federal involvement.
x	x	x	x	8. Ensure Section 7 consultation on future actions impacting endangered species where there is Federal involvement.
x	x	x	x	9. Develop a plan to compensate losses of endangered species habitat since 1991 for Friant and 1995 for Cross Valley.
			x	10. Develop and Implement Conservation Plans.
x	x	x	x	11. Review and amend Water Conservation Plans to ensure consistency with ESA.
x	x	x	x	12. Develop a long-term program to address overall effects of the CVP and implementation of the CVPIA.
x	x	x	x	13. Complete and implement an Operations and Maintenance for activities associated with CVP water delivery and use.
x		x		14. Work with the California Department of Pesticide Regulation.
x	x			15. Identify sources of selenium in wetland water supplies and assess selenium effects on aquatic species from agricultural drainage discharged into the San Joaquin River and Delta.

Biological Opinions				Summary of New and Continuing Commitments Associated with Renewal of Friant Division and Cross Valley Unit CVP Water Contracts
2	1	1	1	
0	9	9	9	
0	9	9	9	
0	8	5	1	
x			x	16. Identify, analyze and compensate for past effects of contract service area boundaries changes, including inclusions and exclusions, since 1991 for Friant and 1995 for Interim contractors.
x				17. Identify and analyze impacts of changes in purpose of use since 1991 for Friant and 1995 for Interim contractors.
x				18. Identify and analyze impacts of all water assignments executed since 1991 for Friant and 1995 for Interim contractors, and coordination on future assignments to ensure ESA compliance.
x				19. Reclamation will apply applicable criteria to all water transfers.
x				20. Develop and implement a Contingency Plan/Adaptive Management Program for implementing compensation commitments associated with losses of listed species habitat as a result of the delivery of CVP water.
				21. Other conservation measures (New)
			x	22. Curtail deliveries associated with discovery of conversion of native lands without consideration of ESA.
			x	23. Reclamation will amend all long-term contracts to include penalty provisions prohibiting any unauthorized take, conversion of wildland habitat, etc., and provides that Reclamation shall terminate delivery of water to the Contractor until such time as the issue is resolved.
			x	24. Reclamation shall consult with the Service on any deliveries of water using Friant facilities beyond that addressed in this biological opinion.

## SERVICE REPORTING REQUIREMENTS

Incidental take is the taking that is incidental to, and not intended as part of the agency action is not considered to be prohibited taking under the Endangered Species Act. The incidental taking of listed species is not authorized under this biological opinion. As a commitment under this opinion, Reclamation shall:

1. Meet with the Service's Sacramento Fish and Wildlife Office, Endangered Species Division (ESD) at least quarterly.

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2. Provide draft and final quarterly status reports to the ESD providing information on the following activities:

(a) Implementation progress of this biological opinion and other biological opinions that address service area effects of the CVP.

(b) Annual deliveries relative to historic amounts.

(c) Names and description of all Reclamation actions undertaken by Reclamation that have no effect on listed species including the acres affected and land use preceding and subsequent to Reclamation's action.

3. Habitat compensation plans for actions undertaken by Reclamation that have no effect on listed species that the Reclamation and the Service agreed that compensation habitat would be provided through management or acquisition in perpetuity.

4. Require the districts to report take or suspected take of listed species. Reclamation shall notify Scott Pearson, Assistant Field Supervisor (916.414.6660) for Endangered Species Program with 24-hours.

5. Dead, injured, or sick endangered or threatened species must be reported to the nearest Service Law Enforcement Office (Scott Pearson, 916.414.6660), 2800 Cottage Way, Room W-2928 Sacramento, California.

6. Dead, injured, or sick listed wildlife species found in or adjacent to pesticide-treated areas must be reported to Richard Hill, Service Regional Office, Portland, Oregon (503.231.6241).

7. Dead, injured, or sick listed wildlife species suspected to be taken in violation of pesticide label restrictions must be reported to the Service Law Enforcement Office (Scott Pearson, 916.414.6660), 2800 Cottage Way, Room W-2928 Sacramento, California.

**APPENDIX C**

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**ECONOMIC ANALYSIS OF NOVEMBER 1999**

## Economic Analysis of November 1999 Tiered Pricing Proposal for PEIS Preferred Alternative

Date: October 2, 2000

This submittal presents the results of an Economic Analysis of the application to the PEIS Preferred Alternative of the November 1999 unit rates for CVP water and Tiered Pricing Proposal.

The PEIS Preferred Alternative included assumptions for the tiered pricing of CVP water that were developed during the preparation of the Draft PEIS. Subsequent to completion of the Final PEIS, a different tiered pricing proposal was developed. In addition, the PEIS assumed 1992 CVP water rates. This analysis includes the 1999 water rates. This submittal applies the new water rates and the November 1999 proposal to the Preferred Alternative and compares the results to the impact analysis of the PEIS Preferred Alternative. The level of detail presented in this submittal is consistent with the level of detail presented in the main PEIS document and the technical appendices. Tables are presented in the same format as used in the PEIS.

The economic analysis includes an evaluation of agricultural economics using Central Valley Production Model (CVPM), municipal and industrial water use economics for CVP water using the spreadsheet presented with the PEIS, and regional economics using IMPLAN. This memorandum discusses the new assumptions in the November 1999 proposal. However, this memorandum does not discuss the basic assumptions used in the PEIS models and analytical tools. This memorandum must be used in conjunction with the Draft PEIS and Final PEIS, including the methodology and modeling technical appendices, to explain the overall assumptions for evaluating the Preferred Alternative in the PEIS.

For the Agricultural Land Use and Economics analysis, the methodology used for applying CVP water rates was modified to allow for the new tiered pricing and the use of blended rates to determine a total water rate for all CVP water applied by an irrigation district or agency. These changes result in changes in water use due to the affordability of CVP water supplies, not a change in reliability.

For the Municipal and Industrial Water Use Economics analysis, blended rates had been used in the PEIS analysis. In addition, this analysis assumes that the municipal and industrial users will be able to afford the calculated water costs, as described in the PEIS. Therefore, CVP water deliveries do not change for the municipal and industrial analysis. The Regional Economics analysis reflects only changes to agricultural and municipal and industrial sectors, but not recreation sectors.

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**SECTION 1**  
**AGRICULTURAL LAND USE AND ECONOMICS**



**SECTION 1**  
**AGRICULTURAL LAND USE AND ECONOMICS**

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**CONTRACT RENEWAL PROPOSAL WITH BLENDED WATER RATES**

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In the November 1999 proposal, Reclamation has proposed that water sold to CVP water service contractors be sold according to tiered water rates as required by CVPIA section 3404.

Reclamation has also proposed that two categories of water be identified. Category 1 water would be calculated as the average delivery of the previous five years, and would be split into three tiers according to the 80-10-10 quantities defined in the CVPIA. Category 2 water would be any water available in excess of the 5-year rolling average, up to the total contract amount as defined by the Needs Analysis.

Tier 1 water rates include the cost-of-service component and any applicable Restoration charges and surcharges. Both the Restoration Charge and the capital component of the cost-of-service rate are subject to ability-to-pay limits. These limits are in effect for Bella Vista WD and Clear Creek CSD, contractors on the Corning and Tehama-Colusa Canals, and contractors receiving water from New Melones.

Tier 3 water rates include the full-cost rate (as defined in the Reclamation Reform Act) and any applicable Restoration Charges. No ability-to-pay relief is provided in this Tier. The Tier 2 water rate is the average of the applicable Tier 1 and Tier 3 rates. Category 2 water has the same rate as Tier 3.

For this proposal, it is assumed that water conservation guidelines allow contractors to blend the rate of CVP water delivered in any tier or Category, and that they do blend the rates. This is different from the assumption used to assess alternatives in the PEIS, in which contractors were assumed to sell CVP water to growers at tiered rates. Differences between PEIS pricing assumptions and this analysis are:

- This analysis assumes that contractors blend the price of all CVP water received at tiered rates into a single rate. Tiered rates to growers are assumed in the PEIS.
- The project water portion of Sacramento River water rights settlement contracts are not subject to the new pricing policy in this analysis. In the PEIS it was assumed that it was subject to tiered rates.
- Rates are based on the Irrigation Water Rates spreadsheets provided by Reclamation in November 1999. PEIS rates used the 1994 Irrigation Water Rates manual.
- Ability-to-pay relief is incorporated using the current payment capacity studies for Shasta County irrigation contractors, Corning Canal contractors, Tehama Colusa Canal contractors, and New Melones contractors. In the PEIS, payment capacity was based on a 1992 regional study (PEIS, 1999).

## SECTION 1 AGRICULTURAL LAND USE AND ECONOMICS

- In this analysis, ability to pay relief is provided in Tier 1, with none in Tier 3 - Tier 2 is the average of Tiers 1 and 3, and so provides 50% relief. In the PEIS, the same dollar amount of ability to pay relief is applied in all pricing tiers.
- A \$7.00 per acre-foot Restoration Charge is assumed in this analysis. A \$6.50 per acre-foot charge was used in the PEIS. The Friant surcharge was \$7.00 per acre-foot in both studies.
- There is no lower bound on the usage of CVP water. In the PEIS each subregion was restricted to using at least the Tier 1 quantity of CVP supplies.

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### METHODOLOGY

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Other than the differences listed above, the modeling approach and underlying data were the same as used for the PEIS. The Central Valley Production Model (CVPM) was used in this analysis, with modifications needed to assess the specific water pricing conditions proposed. Table 1 shows the regions of the CVPM and the corresponding service areas. Groundwater hydrology was not assessed as it was in the PEIS alternatives. Therefore, for purposes of analysis, most regions were assumed to have access to replacement groundwater if needed. Based on groundwater hydrology as described in the PEIS, the following subregions are assumed to be unable to replace any CVP water with groundwater on a long term basis: Shasta County irrigation contractors (subregion 1), Corning Canal contractors (subregion 2), and the Tehama-Colusa service area (subregion 3B).

Water deliveries from the CVPIA Preferred Alternative were used (Reclamation CVPIA PEIS, 1999). These deliveries were allocated on a yearly basis into pricing tiers and categories according to the rules described above. Weighted average (i.e., blended) prices were calculated for each year, with quantities in each tier and category based on the previous five years of delivery. In any given year, the quantity and blended price of water depends on the 6-year sequence leading up to and including the current year. Throughout this report the following conventions are use: an Average year represents the average 1922-1990 water delivery from the CVPIA Preferred Alternative (Reclamation, 1999); a Wet year represents the average delivery for the period of 1967-1971 from the CVPIA Preferred Alternative; and a Dry year is the average 1928-1934 delivery from the CVPIA Preferred Alternative.

## SECTION 1 AGRICULTURAL LAND USE AND ECONOMICS

A total of nine water supply sequences are assessed in this analysis and compared to the CVPIA Preferred Alternative:

Average-Average:	An average water year following a 5-year sequence of average years.
Wet-Average:	An average water year following a 5-year sequence of wet years.
Dry-Average:	An average water year following a 5-year sequence of dry years.
Average-Wet:	A wet water year following a 5-year sequence of average years.
Wet-Wet:	A wet water year following a 5-year sequence of wet years.
Dry-Wet:	A wet water year following a 5-year sequence of dry years.
Average-Dry:	A dry water year following a 5-year sequence of average years.
Wet-Dry:	A dry water year following a 5-year sequence of wet years.
Dry-Dry:	A dry water year following a 5-year sequence of dry years.

The CVP water rates used for each of the nine sequences described above and the CVPIA Preferred Alternative tiered prices are shown in Table 3. Tables 4-12 show the available CVP water service contract supplies by tier and the blended price for each of the 22 subregions under the nine sequences proposed for the Long-Term Contract Renewal analysis.

Results are shown for each of the nine sequences presented as differences compared to the CVPIA Preferred Alternative. When calculating differences from the CVPIA Preferred Alternative, sequences ending in an Average, Wet and Dry years are compared to the Average, Wet and Dry year CVPIA Preferred Alternative results respectively.

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### **IRRIGATED ACRES**

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Changes in irrigated acres from the Preferred Alternative are summarized by region in Table 13. A complete list of changes by crop and subregion is provided as Table 17.

Both the Average-Average and Wet-Average scenarios show little difference from the Preferred Alternative under the Average hydrology conditions. The Dry-Average sequence shows a larger reduction in irrigated acres almost all of which comes from the Sacramento River region. Compared to the Wet year Preferred Alternative results, there is a similar pattern for the three Long-Term Contract Renewal sequences ending with Wet years. For all three of the Long Term Contract Renewal Sequences ending in a dry year there minimal increases in irrigated acreage compared to the Dry year CPVIA Preferred Alternative results. Irrigated acres remain unchanged under all nine sequences in the San Felipe Division.

## SECTION 1 AGRICULTURAL LAND USE AND ECONOMICS

The reduction in acreage in Average and Wet years preceded by a series of Dry years is a result of higher CVP water costs. Since the quantity of Category 1 water is based on the average deliveries of the preceding five years, the quantity of water eligible for Category 1 classification shrinks when a sustained drought is experienced. In an average or wet year follows a drought period, water becomes available however a large portion is classified as Category 2 and is priced at the full cost rate. This can be seen in Tables 6 and 9. When this relatively large block of full cost water is incorporated into the blended water price, all CVP supplies become more expensive, and sometimes unaffordable. This result is not seen in the dry-dry sequence because there is not excess water that gets classified as Category 2.

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### GROSS AND NET REVENUE

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Gross revenue (value of production) impacts follow acreage impacts quite closely, and are shown by region in Table 14. Compared to the Average Preferred Alternative, a small reduction of less than \$1 million is estimated for the Average-Average and Wet-Average scenarios, and a \$39 million reduction is estimated in Dry-Average scenario. Gross revenue also declines compared to the Wet Preferred Alternative with approximately \$5 million reductions in Average and Wet years and a larger reduction of \$29 million in the Dry-Wet scenario. In dry years preceded by all three hydrologic conditions, gross revenue is slightly higher when compared to the Preferred Alternative Dry year results. There were no changes in gross revenue for the San Felipe Division since there were no changes in irrigated acres compared to the CVPIA preferred Alternative. A complete list of changes in gross revenue by crop and subregion is provided as Table 18.

Net revenue impacts are separated into five components; Fallowed land, Groundwater pumping costs, Irrigation Costs, CVP water costs and higher crop prices. The CVP water cost component represents the impact to net revenue from changes in both the quantity of CVP water used and the price of CVP water. Therefore when the blended CVP water price increases, farmers frequently use less, and the net impact to the CVP water cost component can be positive even when the water price is higher. Table 15 summarizes the net income impacts by component. A negative entry in the table indicates a reduction in net revenue. A complete list of changes in net income by component for each subregion is provided as Table 19.

Relatively small net income impacts are seen in all water supply sequences at the State level. The Average-Average sequence compared to the Average year Preferred Alternative shows a decline of \$2 million in net revenue for all of California. The Wet-Average scenario is estimated to have a net increase of approximately \$4 million and the Dry-Average sequence a decrease of \$12 million.

The net revenue impact in Wet years relative to the Preferred Alternative Wet results show a pattern similar to the Average year results. Dry years preceded by a series of Average and Wet years both show net decrease in revenue of about \$12 million while the Dry-Dry sequence results in a \$15 million decrease in Statewide net revenue relative the Preferred Alternative Dry results.

## SECTION 1 AGRICULTURAL LAND USE AND ECONOMICS

Notice that following a series of Dry years, the net revenue component associated with crop prices often results in a positive impact to net revenue. This occurs because some subregions are forced to reduce acreage because of higher blended CVP water prices, resulting in higher crop prices received for acreage that remains in production.

There is a negative impact to net revenue from irrigation costs in the Sacramento and San Joaquin River regions in each of the nine Long-Term Contract Renewal sequences. This impact is derived from the irrigation efficiency improvements induced by higher CVP water prices in the Average year sequences. The change in irrigation efficiency is carried through to the Wet and Dry year sequences because they are short run analyses and irrigation technology is fixed in the short run. The increase in irrigation efficiency results in a reduction in the total water used in some subregions while irrigated acreage remains constant.

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### WATER USE

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Table 16 summarizes water use changes by region. A complete list of changes in CVP water use and groundwater use by subregion is provided as Table 20. Water supplies other than CVP project water and groundwater are unaffected and not shown. The San Joaquin River region and most of the sequences for the Sacramento River region show the typical response represented by a shift away from CVP supplies to groundwater as CVP water becomes more expensive under the new pricing schemes. The Tulare Lake region and the Sacramento River region during wet years preceded by a series of Average and Wet years show what would be considered an atypical response.

In the Sacramento River region when five years of Wet and Average conditions are followed by a wet year, the model predicts that both groundwater and CVP water use will decline relative to the Preferred Alternative Wet condition. The decrease in groundwater use is mostly attributed to subregion 3b. In this subregion in a wet year coming out of a series of Average or Wet years the blended price is cheaper than the Preferred Alternative Tier 2 water cost as well as the cost of pumping groundwater. Therefore there is a shift away from groundwater to CVP supplies. In Average years preceded by Average or Wet years, the subregion is prevented from shifting to CVP because they are already using their full CVP supply.

In the Tulare Lake region there is a pattern of shifting from groundwater to CVP water that can be attributed to subregions 17. This subregion shifts because under the blended pricing scheme the CVP water becomes cheaper than pumping groundwater; therefore they maximize their CVP water use.

In average and wet years preceded by a series of dry years, there is a large decrease in CVP water use in both the Sacramento and San Joaquin River regions. This is driven by the relatively high cost of CVP supplies under these conditions. Since many subregions receive less water in dry years, or the water falls into the higher tiers and it becomes unaffordable, and the base from which the blended price tier quantities is calculated shrinks. This sets up a condition where when an Average or Wet year comes along, the additional water is classified as Category 2 and assessed the full cost price. The CVP blended price is a weighted average of all CVP supplies therefore the cost for all CVP water increases and the supplies often become unaffordable.

**SECTION 1**  
**AGRICULTURAL LAND USE AND ECONOMICS**

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**LOCALIZED IMPACTS**

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Certain subregions are substantially affected by the proposed water pricing.

- The Tehama-Colusa service area is the most-affected region. Limited groundwater availability and very high full-cost price relative to the value of water in agricultural production result in almost 60,000 acres out of production in the Dry-Average sequence and substantially higher cost for lands remaining in production. This analysis shows a one-year snapshot. Because water pricing is based on historic delivery, a region (such as the Tehama-Colusa region) may never be able to “buy its way” back out from a drought. Looked at over a sequence of dry years such as 1928-34 or 1987-92, many or most of the districts in this area could not survive as CVP contractors.
- The analysis predicts that the Delta subregion will make a complete switch to groundwater supplies in all nine hydrologic sequences, assuming groundwater is available in all parts of the service area.
- The analysis estimates that the once an extended drought is experienced the Delta-Mendota service area would switch from its CVP water service supply to groundwater, assuming groundwater is available in all parts of the service area.
- Westlands Water District and many of the Friant Unit contractors would likely continue purchasing CVP water. Since these areas continue to purchase CVP supplies in all years coming out of drought conditions, they would eventually build their base deliveries up or "buy their way" back to pre-drought tier quantities and prices.

**TABLE 1  
CVPM SUBREGIONS AND DESCRIPTIONS**

<b>CVPM Subregion</b>	<b>Description of Major Water Users</b>
1	CVP Users: Anderson Cottonwood, Clear Creek, Bella Vista, Sacramento River miscellaneous users.
2	CVP Users: Corning Canal, Kirkwood, Tehema, Sacramento River, miscellaneous users.
3	CVP Users: Glenn Colusa ID, Provident, Princeton-Codora, Maxwell, and Colusa Basin Drain MWC.
3B	Tehama Colusa Canal Service Area. CVP Users: Orland-Artois WD, most of County of Colusa, Davis, Dunnigan, Glide Kanawha, La Grande, Westside WD.
4	CVP Users: Princeton-Codora-Glenn, Colusa Irrigation Co., Meridian Farm WC, Pelger Mutual WC, Recl. Dist. 1004, Recl. Dist. 108, Robers Ditch, Sartain M.D., Sutter MWC, Swinford Tract IC, Tisdale Irrigation, Sacramento River miscellaneous users.
5	Most Feather River Region riparian and appropriative users.
6	Yolo, Solano Counties. CVP Users: Conaway Ranch, Sacramento River miscellaneous users.
7	Sacramento Co. north of American River. CVP Users: Natomas Central MWC, Sacramento River miscellaneous users, Pheasant Grove-Verona, San Juan Suburban.
8	Sacramento Co. south of American River, San Joaquin Co.
9	Delta Regions. CVP Users: Banta Carbona, West Side, Plainview.
10	Delta Mendota Canal. CVP Users: Pacheco, Del Puerto, Hospital, Sunflower, West Stanislaus, Mustang, Orestimba, Patterson, Foothill, San Luis WD, Broadview, Eagle Field, Mercy Springs, Pool Exchange Contractors, Schedule II water rights, more.
11	Stanislaus River water rights: Modesto ID, Oakdale ID, South San Joaquin ID.
12	Turlock ID.
13	Merced ID. CVP Users: Madera, Chowchilla, Gravely Ford.
14	CVP Users: Westlands WD.
15	Tulare Lake Bed. CVP Users: Fresno Slough, James, Tranquility, Traction Ranch, Laguna, Real. Dist. 1606.
16	Eastern Fresno Co. CVP Users: Friant-Kern Canal. Fresno ID, Garfield, International.
17	CVP Users: Friant-Kern Canal. Hills Valley, Tri-Valley Orange Cove.
18	CVP Users: Friant-Kern Canal, County of Fresno, Lower Tule River ID, Pixley ID, portion of Rag Gulch, Ducor, County of Tulare, most of Delano Earlimart, Exeter, Ivanhoe, Lewis Cr., Lindmore, Lindsay-Strathmore, Porterville, Sausalito, Stone Corral, Tea Pot Dome, Terra Bella, Tulare.
19	Kern Co. SWP Service Area.
20	CVP Users: Friant-Kern Canal. Shafter-Wasco, S. San Joaquin.
21	CVP Users: Cross Valley Canal, Friant-Kern Canal. Arvin Edison.

TABLE 2

CVP WATER RATES USED FOR LONG TERM CONTRACT RENEWAL ANALYSIS (\$)

CVPM Subregion	Tiered Water Rates Used for LTCR analysis			Proposed Blended Water Rates for Water Service Contracts								
	Tier 1	Tier 2	Tier 3	Average	Wet	Dry	Average	Wet	Dry	Average	Wet	Dry
				Followed by Average			Followed by Wet			Followed by Dry		
1	12.01	37.56	63.12	19.67	14.98	14.14	23.91	19.67	18.20	25.19	21.09	19.67
2	10.71	36.40	62.09	18.42	10.71	49.66	29.55	18.42	52.83	10.71	10.71	18.42
3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3B	10.25	40.73	71.21	19.39	10.25	58.15	32.35	19.39	61.42	10.25	10.25	19.39
4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5	20.65	23.01	25.36	21.35	21.18	21.77	21.52	21.35	21.92	20.90	20.81	21.35
6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7	11.77	12.07	12.37	11.86	11.86	11.86	11.86	11.86	11.86	11.86	11.86	11.86
8	10.00	27.46	44.92	15.24	10.00	30.36	25.64	15.24	35.47	10.00	10.00	15.24
9	24.79	55.14	85.50	33.89	24.79	64.53	55.27	33.89	73.22	24.79	24.79	33.89
10	31.15	40.16	49.16	33.85	31.15	42.94	38.01	33.85	44.63	31.15	31.15	33.85
11	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
12	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
13	32.16	38.41	44.65	34.04	33.25	37.44	34.77	34.04	37.94	32.16	32.16	34.04
14	32.62	46.48	60.33	36.78	32.62	50.76	43.17	36.78	53.36	32.62	32.62	36.78
15	32.71	41.91	51.10	35.47	34.55	38.10	36.34	35.47	38.82	33.07	32.71	35.47
16	40.48	46.78	53.08	42.37	41.22	45.32	43.40	42.37	46.07	40.48	40.48	42.37
17	34.18	40.49	46.79	36.07	35.15	39.28	36.92	36.07	39.88	34.18	34.18	36.07
18	33.63	40.48	47.33	35.69	34.73	39.16	36.57	35.69	39.78	33.63	33.63	35.69
19	34.58	42.16	49.73	36.86	35.00	41.21	38.84	36.86	42.52	34.58	34.58	36.86
20	34.58	42.16	49.73	36.86	35.70	40.85	37.92	36.86	41.58	34.58	34.58	36.86
21	32.70	39.00	45.31	34.59	32.98	39.01	36.33	34.59	40.03	32.70	32.70	34.59

- NOTES:
1. Blended rates used pricing components from the November, 1999 Irrigation Water Rates spreadsheets, Restoration Charge of \$7.00
  2. PEIS rates used regional estimates of payment capacity and allowed the same ATP relief in all tiers.
  3. Blended rates use most recent available payment capacity studies from Reclamation, and allow ATP relief in Tier 1 but not in Tier 3.
  4. Only Class 1 rates are shown for Friant Division. Friant surcharge is \$7.00 in all rates.



**TABLE 3**

**CVP WATER RATES USED IN PREFERRED ALTERNATIVE (\$)**

CVPM Subregion	Tiered Water Rates Used in the PEIS Preferred Alternative (\$)		
	Tier 1	Tier 2	Tier 3
1	5.91	14.63	23.35
2	11.83	24.7	37.57
3	2.83	5.27	7.71
3B	17.16	36.225	55.29
4	5.32	7.625	9.93
5	4.53	6.965	9.4
6	4.53	6.82	9.11
7	6.63	8.83	11.03
8	4.53	7.095	9.66
9	28.54	35.245	41.95
10	33.46	40.015	46.57
11	0	0	0
12	0	0	0
13	33.65	39.395	45.14
14	39.31	54.385	69.46
15	28.16	34.875	41.59
16	38.25	44.255	50.26
17	35.58	41.905	48.23
18	35.01	41.255	47.5
19	36.68	42.885	49.09
20	36.68	42.885	49.09
21	35.4	42.01	48.62

**NOTES:**

1. PEIS rates used pricing components from the 1994 Irrigation Water Rates Manual, Restoration Charge of \$6.50
2. PEIS rates used regional estimates of payment capacity and allowed the same ATP relief in all tiers.
3. Only Class 1 rates are shown for Friant Division. Friant surcharge is \$7.00 in all rates.

**TABLE 4**

**PROJECT WATER APPLIED BY PRICING TIERS  
AVERAGE YEAR FOLLOWING AVERAGE 5-YEAR BASE CONDITION**

CVPM Subregion	Tier 1	Tier 2	Tier 3	Category 2	Blended Price (\$/AF)
	(1000 AF)				
1	9.4	1.2	1.2	-	\$ 19.67
2	21.9	2.7	2.7	-	\$ 18.42
3	-	-	-	-	NA
3B	159.7	20.0	20.0	-	\$ 19.39
4	-	-	-	-	NA
5	16.0	2.0	2.0	-	\$ 21.35
6	-	-	-	-	NA
7	12.0	1.5	1.5	-	\$ 11.86
8	41.3	5.2	5.2	-	\$ 15.24
9	22.5	2.8	2.8	-	\$ 33.89
10	231.4	28.9	28.9	-	\$ 33.85
11	-	-	-	-	
12	-	-	-	-	
13	153.6	19.2	19.2	-	\$ 34.04
14	539.1	67.4	67.4	-	\$ 36.78
15	32.3	4.0	4.0	-	\$ 35.47
16	18.9	2.4	2.4	-	\$ 42.37
17	34.9	4.4	4.4	-	\$ 36.07
18	484.2	60.5	60.5	-	\$ 35.69
19	13.1	1.6	1.6	-	\$ 36.86
20	194.2	24.3	24.3	-	\$ 36.86
21	129.7	16.2	16.2	-	\$ 34.59

Table 5

**PROJECT WATER APPLIED BY PRICING TIERS  
AVERAGE YEAR FOLLOWING WET 5-YEAR BASE CONDITION**

CVPM Subregion	Tier 1	Tier 2	Tier 3	Category 2	Blended Price (\$/AF)
	(1000 AF)				
1	10.4	1.3	0.0	-	\$ 14.98
2	27.3	-	-	-	\$ 10.71
3	-	-	-	-	NA
3B	199.6	-	-	-	\$ 10.25
4	-	-	-	-	NA
5	16.6	2.1	1.2	-	\$ 21.18
6	-	-	-	-	NA
7	12.0	1.5	1.5	-	\$ 11.86
8	51.6	-	-	-	\$ 10.00
9	28.2	-	-	-	\$ 24.79
10	289.2	-	-	-	\$ 31.15
11	-	-	-	-	NA
12	-	-	-	-	NA
13	165.0	20.6	6.3	-	\$ 33.25
14	673.8	-	-	-	\$ 32.62
15	34.2	4.3	1.9	-	\$ 34.55
16	21.0	2.6	0.1	-	\$ 41.22
17	37.9	4.7	1.0	-	\$ 35.15
18	523.8	65.5	15.9	-	\$ 34.73
19	15.5	0.9	-	-	\$ 35.00
20	211.7	26.5	4.6	-	\$ 35.70
21	154.9	7.2	-	-	\$ 32.98

Table 6

**PROJECT WATER APPLIED BY PRICING TIERS  
AVERAGE YEAR FOLLOWING DRY 5-YEAR BASE CONDITION**

CVPM Subregion	Tier 1	Tier 2	Tier 3	Category 2	Blended Price (\$/AF)
	(1000 AF)				
1	10.8	1.0	-	-	\$ 14.14
2	6.2	0.8	0.8	19.6	\$ 49.66
3	-	-	-	-	NA
3B	40.2	5.0	5.0	149.3	\$ 58.15
4	-	-	-	-	NA
5	14.3	1.8	1.8	2.1	\$ 21.77
6	-	-	-	-	NA
7	12.0	1.5	1.5	-	\$ 11.86
8	20.2	2.5	2.5	26.3	\$ 30.36
9	9.2	1.1	1.1	16.7	\$ 64.53
10	94.0	11.8	11.8	171.7	\$ 42.94
11	-	-	-	-	NA
12	-	-	-	-	NA
13	104.4	13.0	13.0	61.6	\$ 37.44
14	219.1	27.4	27.4	400.0	\$ 50.76
15	26.8	3.4	3.4	6.8	\$ 38.10
16	13.7	1.7	1.7	6.5	\$ 45.32
17	24.5	3.1	3.1	13.1	\$ 39.28
18	339.7	42.5	42.5	180.6	\$ 39.16
19	8.7	1.1	1.1	5.6	\$ 41.21
20	133.9	16.7	16.7	75.3	\$ 40.85
21	76.2	9.5	9.5	66.8	\$ 39.01

Table 7

**PROJECT WATER APPLIED BY PRICING TIERS  
WET YEAR FOLLOWING AVERAGE 5-YEAR BASE CONDITION**

CVPM Subregion	Tier 1	Tier 2	Tier 3	Category 2	Blended Price (\$/AF)
	(1000 AF)				
1	9.4	1.2	1.2	1.3	\$ 23.91
2	21.9	2.7	2.7	9.4	\$ 29.55
3	-	-	-	-	NA
3B	159.7	20.0	20.0	66.6	\$ 32.35
4	-	-	-	-	NA
5	16.0	2.0	2.0	0.9	\$ 21.52
6	-	-	-	-	NA
7	12.0	1.5	1.5	-	\$ 11.86
8	41.3	5.2	5.2	27.8	\$ 25.64
9	22.5	2.8	2.8	19.9	\$ 55.27
10	231.4	28.9	28.9	107.8	\$ 38.01
11	-	-	-	-	NA
12	-	-	-	-	NA
13	153.6	19.2	19.2	14.3	\$ 34.77
14	539.1	67.4	67.4	251.2	\$ 43.17
15	32.3	4.0	4.0	2.4	\$ 36.34
16	18.9	2.4	2.4	2.5	\$ 43.40
17	34.9	4.4	4.4	3.8	\$ 36.92
18	484.2	60.5	60.5	49.6	\$ 36.57
19	13.1	1.6	1.6	3.0	\$ 38.84
20	194.2	24.3	24.3	21.9	\$ 37.92
21	129.7	16.2	16.2	31.5	\$ 36.33

Table 8

**PROJECT WATER BY PRICING TIERS  
WET YEAR FOLLOWING WET 5-YEAR BASE CONDITION**

CVPM Subregion	Tier 1	Tier 2	Tier 3	Category 2	Blended Price (\$/AF)
	(1000 AF)				
1	10.4	1.3	1.3	-	\$ 19.67
2	29.4	3.7	3.7	-	\$ 18.42
3	-	-	-	-	NA
3B	212.9	26.6	26.6	-	\$ 19.39
4	-	-	-	-	NA
5	16.6	2.1	2.1	-	\$ 21.35
6	-	-	-	-	NA
7	12.0	1.5	1.5	-	\$ 11.86
8	63.5	7.9	7.9	-	\$ 15.24
9	38.5	4.8	4.8	-	\$ 33.89
10	317.6	39.7	39.7	-	\$ 33.85
11	-	-	-	-	NA
12	-	-	-	-	NA
13	165.0	20.6	20.6	-	\$ 34.04
14	740.0	92.5	92.5	-	\$ 36.78
15	34.2	4.3	4.3	-	\$ 35.47
16	21.0	2.6	2.6	-	\$ 42.37
17	37.9	4.7	4.7	-	\$ 36.07
18	523.8	65.5	65.5	-	\$ 35.69
19	15.5	1.9	1.9	-	\$ 36.86
20	211.7	26.5	26.5	-	\$ 36.86
21	154.9	19.4	19.4	-	\$ 34.59

**Table 9**

**PROJECT WATER APPLIED BY PRICING TIERS  
WET YEAR FOLLOWING DRY 5-YEAR BASE CONDITION**

CVPM Subregion	Tier 1	Tier 2	Tier 3	Category 2	Blended Price (\$/AF)
	(1000 AF)				
1	10.8	1.3	0.9	-	\$ 18.20
2	6.2	0.8	0.8	28.9	\$ 52.83
3	-	-	-	-	NA
3B	40.2	5.0	5.0	215.9	\$ 61.42
4	-	-	-	-	NA
5	14.3	1.8	1.8	2.9	\$ 21.92
6	-	-	-	-	NA
7	12.0	1.5	1.5	-	\$ 11.86
8	20.2	2.5	2.5	54.1	\$ 35.47
9	9.2	1.1	1.1	36.7	\$ 73.22
10	94.0	11.8	11.8	279.5	\$ 44.63
11	-	-	-	-	NA
12	-	-	-	-	NA
13	104.4	13.0	13.0	75.9	\$ 37.94
14	219.1	27.4	27.4	651.1	\$ 53.36
15	26.8	3.4	3.4	9.1	\$ 38.82
16	13.7	1.7	1.7	9.1	\$ 46.07
17	24.5	3.1	3.1	16.8	\$ 39.88
18	339.7	42.5	42.5	230.2	\$ 39.78
19	8.7	1.1	1.1	8.5	\$ 42.52
20	133.9	16.7	16.7	97.2	\$ 41.58
21	76.2	9.5	9.5	98.3	\$ 40.03

Table 10

PROJECT WATER APPLIED BY PRICING TIERS  
 DRY YEAR FOLLOWING AVERAGE 5-YEAR BASE CONDITION

CVPM Subregion	Tier 1	Tier 2	Tier 3	Category 2	Blended Price (\$/AF)
	(1000 AF)				
1	9.4	1.2	1.2	1.7	\$ 25.19
2	7.8	-	-	-	\$ 10.71
3	-	-	-	-	NA
3B	50.3	-	-	-	\$ 10.25
4	-	-	-	-	NA
5	16.0	1.9	-	-	\$ 20.90
6	-	-	-	-	NA
7	12.0	1.5	1.5	-	\$ 11.86
8	25.3	-	-	-	\$ 10.00
9	11.5	-	-	-	\$ 24.79
10	117.5	-	-	-	\$ 31.15
11	-	-	-	-	NA
12	-	-	-	-	NA
13	130.4	-	-	-	\$ 32.16
14	273.9	-	-	-	\$ 32.62
15	32.3	1.3	-	-	\$ 33.07
16	17.1	-	-	-	\$ 40.48
17	30.6	-	-	-	\$ 34.18
18	424.6	-	-	-	\$ 33.63
19	10.9	-	-	-	\$ 34.58
20	167.4	-	-	-	\$ 34.58
21	95.3	-	-	-	\$ 32.70



Table 11

**PROJECT WATER APPLIED BY PRICING TIERS  
 DRY YEAR FOLLOWING WET 5-YEAR BASE CONDITION**

CVPM Subregion	Tier 1	Tier 2	Tier 3	Category 2	Blended Price (\$/AF)
	(1000 AF)				
1	10.4	1.3	1.3	0.4	\$ 21.09
2	7.8	-	-	-	\$ 10.71
3	-	-	-	-	NA
3B	50.3	-	-	-	\$ 10.25
4	-	-	-	-	NA
5	16.6	1.2	-	-	\$ 20.81
6	-	-	-	-	NA
7	12.0	1.5	1.5	-	\$ 11.86
8	25.3	-	-	-	\$ 10.00
9	11.5	-	-	-	\$ 24.79
10	117.5	-	-	-	\$ 31.15
11	-	-	-	-	NA
12	-	-	-	-	NA
13	130.4	-	-	-	\$ 32.16
14	273.9	-	-	-	\$ 32.62
15	33.6	-	-	-	\$ 32.71
16	17.1	-	-	-	\$ 40.48
17	30.6	-	-	-	\$ 34.18
18	424.6	-	-	-	\$ 33.63
19	10.9	-	-	-	\$ 34.58
20	167.4	-	-	-	\$ 34.58
21	95.3	-	-	-	\$ 32.70

Table 12

**PROJECT WATER BY PRICING TIERS  
 DRY YEAR FOLLOWING DRY 5-YEAR BASE CONDITION**

CVPM Subregion	Tier 1	Tier 2	Tier 3	Category 2	Blended Price (\$/AF)
	(1000 AF)				
1	10.8	1.3	1.3	-	\$ 19.67
2	6.2	0.8	0.8	-	\$ 18.42
3	-	-	-	-	NA
3B	40.2	5.0	5.0	-	\$ 19.39
4	-	-	-	-	NA
5	14.3	1.8	1.8	-	\$ 21.35
6	-	-	-	-	NA
7	12.0	1.5	1.5	-	\$ 11.86
8	20.2	2.5	2.5	-	\$ 15.24
9	9.2	1.1	1.1	-	\$ 33.89
10	94.0	11.8	11.8	-	\$ 33.85
11	-	-	-	-	NA
12	-	-	-	-	NA
13	104.4	13.0	13.0	-	\$ 34.04
14	219.1	27.4	27.4	-	\$ 36.78
15	26.8	3.4	3.4	-	\$ 35.47
16	13.7	1.7	1.7	-	\$ 42.37
17	24.5	3.1	3.1	-	\$ 36.07
18	339.7	42.5	42.5	-	\$ 35.69
19	8.7	1.1	1.1	-	\$ 36.86
20	133.9	16.7	16.7	-	\$ 36.86
21	76.2	9.5	9.5	-	\$ 34.59

TABLE 13

IRRIGATED ACRES BY SUBREGION (1000 ACRES)

CVPM Subregion	Average Preferred Alternative	Change Compared to			Wet Preferred Alternative	Change Compared to			Dry Preferred Alternative	Change Compared to		
		Average	Wet	Dry		Average	Wet	Dry		Average	Wet	Dry
		followed by Average				followed by Wet				followed by Dry		
Sacramento River	2015.5	-1.7	-0.8	-65.3	2020.0	-4.4	-4.4	-53.0	1984.8	0.1	0.1	0.0
San Joaquin River	2526.6	-0.2	-0.2	-1.2	2529.1	-1.7	-1.6	-1.9	2505.9	-0.1	-0.1	-0.1
Tulare Lake	1992.4	0.0	0.0	-0.2	1996.2	-1.2	-1.2	-1.3	1953.7	0.1	0.1	0.1
San Felipe	50.7	0.0	0.0	0.0	69.5	0.0	0.0	0.0	22.2	0.0	0.0	0.0
California Total	6585.2	-1.9	-1.0	-66.7	6614.8	-7.3	-7.3	-56.2	6466.6	0.1	0.1	0.1

TABLE 14

VALUE OF PRODUCTION BY SUBREGION (Million \$)

CVPM Subregion	Average Preferred Alternative	Change Compared to Average			Wet Preferred Alternative	Change Compared to Wet PA			Dry Preferred Alternative	Change Compared to Dry PA		
		Average	Wet	Dry		Average	Wet	Dry		Average	Wet	Dry
		followed by Average				followed by Wet				followed by Dry		
Sacramento River	1,825.3	-0.4	-0.2	-37.6	1,828.0	-1.6	-1.6	-26.8	1,810.0	0.4	0.4	0.3
San Joaquin River	4,402.3	-0.1	-0.1	-1.0	4,403.8	-0.9	-0.9	-1.1	4,384.2	-0.2	-0.2	-0.2
Tulare Lake	3,876.3	0.0	0.0	-0.3	3,879.4	-1.0	-1.0	-1.1	3,842.7	0.1	0.1	0.1
San Felipe	68.0	0.0	0.0	0.0	70.0	0.0	0.0	0.0	44.0	0.0	0.0	0.0
California Total	10,172.0	-0.5	-0.4	-38.8	10,181.2	-3.6	-3.6	-28.9	10,080.8	0.3	0.3	0.3

TABLE 15

## NET REVENUE CHANGES BY REGION (Million \$)

Cause of Net Revenue Change	Compared to Average Year PA			Compared to Wet Year PA			Compared to Dry Year PA		
	Average	Wet	Dry	Average	Wet	Dry	Average	Wet	Dry
	followed by Average			followed by Wet			followed by Dry		
<b>Sacramento River</b>									
Fallowed Land	-0.1	0.0	-6.7	-0.3	-0.3	-4.6	0.0	0.0	0.0
Groundwater Pumping Cost	-0.3	-0.3	-0.4	1.0	1.0	-4.5	-0.2	-0.2	-0.2
Irrigation Cost	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
CVP Water Cost	-0.3	1.7	3.6	-5.1	-1.0	4.6	-0.1	-0.1	-0.7
Higher Crop Prices	0.0	0.0	1.9	0.1	0.1	1.0	0.0	0.0	0.0
<b>Net Change</b>	<b>-1.0</b>	<b>1.0</b>	<b>-1.9</b>	<b>-4.6</b>	<b>-0.5</b>	<b>-3.8</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-1.2</b>
<b>San Joaquin River</b>									
Fallowed Land	0.0	0.0	-0.1	-0.2	-0.2	-0.2	0.0	0.0	0.0
Groundwater Pumping Cost	0.0	0.0	-10.3	-7.4	0.2	-14.1	-1.0	-1.0	-1.0
Irrigation Cost	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
CVP Water Cost	1.0	4.0	2.3	7.9	6.1	6.2	-5.9	-5.9	-7.5
Higher Crop Prices	0.1	0.0	2.5	0.2	0.2	1.0	0.0	0.0	0.0
<b>Net Change</b>	<b>0.9</b>	<b>3.9</b>	<b>-5.7</b>	<b>0.4</b>	<b>6.1</b>	<b>-7.3</b>	<b>-7.0</b>	<b>-7.0</b>	<b>-8.6</b>
<b>Tulare Lake</b>									
Fallowed Land	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0
Groundwater Pumping Cost	0.1	0.1	0.1	1.0	1.0	1.0	-3.2	-3.2	-3.2
Irrigation Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CVP Water Cost	-2.3	-1.2	-5.7	-3.1	-2.1	-6.4	-0.9	-0.9	-2.3
Higher Crop Prices	0.0	0.0	1.4	0.1	0.1	0.4	0.0	0.0	0.0
<b>Net Change</b>	<b>-2.1</b>	<b>-1.1</b>	<b>-4.2</b>	<b>-2.1</b>	<b>-1.1</b>	<b>-5.1</b>	<b>-4.1</b>	<b>-4.1</b>	<b>-5.5</b>
<b>San Felipe</b>									
Fallowed Land	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Groundwater Pumping Cost	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	-0.2	0.0	-0.6	-0.5	-0.2	-0.9	0.0	0.0	-0.1
Higher Crop Prices	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net Change</b>	<b>-0.2</b>	<b>0.0</b>	<b>-0.6</b>	<b>-0.5</b>	<b>-0.2</b>	<b>-0.9</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.1</b>
<b>Total</b>									
Fallowed Land	-0.1	-0.1	-6.9	-0.6	-0.6	-4.9	0.0	0.0	0.0
Groundwater Pumping Cost	-0.2	-0.2	-10.5	-5.3	2.2	-17.6	-4.4	-4.4	-4.4
Irrigation Cost	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
CVP Water Cost	-1.6	4.5	0.2	-0.3	3.1	4.5	-6.9	-6.8	-10.5
Higher Crop Prices	0.1	0.1	5.8	0.4	0.4	2.3	0.0	0.0	0.0
<b>Net Change</b>	<b>-2.3</b>	<b>3.7</b>	<b>-11.9</b>	<b>-6.3</b>	<b>4.6</b>	<b>-16.1</b>	<b>-11.7</b>	<b>-11.7</b>	<b>-15.3</b>
Note: A negative value in a cost category represents an increase in cost that produces a decrease in net revenue									

**TABLE 16  
IRRIGATION WATER APPLIED BY REGION (1000 AF)**

Region	Average Preferred Alternative	Change Compared to Average			Wet Preferred Alternative	Change Compared to Wet PA			Dry Preferred Alternative	Change Compared to Dry PA		
		Average	Wet	Dry		Average	Wet	Dry		Average	Wet	Dry
		followed by Average				followed by Wet				followed by Dry		
<b>Sacramento River</b>												
CVP Water*	625.9	-27.6	-23.4	-243.5	694.3	-2.4	-2.6	-305.5	402.1	-20.3	-20.3	-20.4
Groundwater	2,621.3	10.5	10.7	11.2	2,456.9	-24.5	-24.3	114.7	3,261.6	4.1	4.2	4.0
<b>San Joaquin River</b>												
CVP Water*	960.2	-8.7	-9.0	-269.0	1,226.6	-226.3	-21.0	-378.7	506	-17.5	-17.5	-17.5
Groundwater	3,606.2	3.3	3.5	260.0	2,974.2	215.1	10.3	366.8	4723	12.0	12.0	12.0
<b>Tulare Lake</b>												
CVP Water*	919.5	1.9	2.0	2.0	967.3	3.7	3.8	3.6	685.3	0.1	0.1	0.0
Groundwater	3,369.0	-1.8	-2.0	-2.0	2,683.5	-7.7	-7.7	-7.5	4,542.9	0.0400	0.0400	0.0400
<b>San Felipe</b>												
CVP Water*	71.0	0.0	0.0	0.0	71.0	0.0	0.0	0.0	71.0	0.0	0.0	0.0
Groundwater	na	na	na	na	na	na	na	na	na	na	na	na
<b>Total</b>												
CVP Water*	2,505.5	-34.4	-30.4	-510.5	2,888.2	-224.9	-19.9	-680.6	1,593.9	-37.7	-37.8	-37.8
Groundwater	9,596.5	11.9	12.3	269.2	8,114.6	182.8	-21.6	474.0	12,527.1	16.1	16.2	16.1
*CVP water applied is project water only. It excludes exchange contract delivery and the base supply portion of settlement contracts.												

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		
1	Pasture	18.3	-1.2	-0.3	-0.1	18.3	-1.5	-1.5	-1.5	18.1	-1.8	-1.8	-1.8
	Alfalfa	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0
	Other Field 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
	Deciduous Orchard	3.8	0.0	0.0	0.0	3.8	0.0	0.0	0.0	3.8	0.0	0.0	0.0
	Small Grain	2.4	0.0	0.0	0.0	2.4	0.0	0.0	0.0	2.4	0.0	0.0	0.0
	<b>Subtotal</b>	<b>26.6</b>	<b>-1.3</b>	<b>-0.3</b>	<b>-0.1</b>	<b>26.5</b>	<b>-1.6</b>	<b>-1.6</b>	<b>-1.6</b>	<b>26.3</b>	<b>-1.9</b>	<b>-1.9</b>	<b>-1.9</b>
2	Pasture	34.1	0.0	0.0	-3.6	33.9	0.0	0.0	-5.9	33.1	0.0	0.0	0.0
	Alfalfa	9.5	0.0	0.0	-0.3	9.5	0.0	0.0	-0.6	9.4	0.0	0.0	0.0
	Sugar Beets	4.0	0.0	0.0	0.0	4.0	0.0	0.0	-0.1	4.0	0.0	0.0	0.0
	Other Field Crops	17.3	0.0	0.0	-0.5	17.2	0.0	0.0	-0.7	17.1	0.0	0.0	0.0
	Rice	4.5	0.0	0.0	-0.2	4.5	0.0	0.0	-0.3	4.5	0.0	0.0	0.0
	Truck Crops	15.5	0.0	0.0	0.0	15.5	0.0	0.0	0.0	15.5	0.0	0.0	0.0
	Deciduous Orchard	86.0	0.0	0.0	-0.1	86.0	0.0	0.0	0.0	86.0	0.0	0.0	0.0
	Small Grain	14.0	0.0	0.0	-0.2	13.9	0.0	0.0	-0.6	13.7	0.0	0.0	0.0
	Subtropical Orchard	10.2	0.0	0.0	0.0	10.2	0.0	0.0	0.0	10.2	0.0	0.0	0.0
	<b>Subtotal</b>	<b>195.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-4.9</b>	<b>194.7</b>	<b>0.0</b>	<b>0.0</b>	<b>-8.2</b>	<b>193.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
3	Pasture	7.8	0.0	0.0	0.0	7.9	0.0	0.0	0.0	7.5	0.0	0.0	0.0
	Alfalfa	18.2	0.0	0.0	0.0	18.3	0.0	0.0	0.0	18.0	0.0	0.0	0.0
	Sugar Beets	9.9	0.0	0.0	0.0	9.9	0.0	0.0	0.0	9.8	0.0	0.0	0.0
	Other Field Crops	15.7	0.0	0.0	0.0	15.8	0.0	0.0	0.0	15.5	0.0	0.0	0.0
	Rice	138.9	0.0	0.0	0.0	139.5	0.0	0.0	0.0	136.7	0.0	0.0	0.0
	Truck Crops	25.2	0.0	0.0	0.0	25.2	0.0	0.0	0.0	25.2	0.0	0.0	0.0
	Tomatoes	25.9	0.0	0.0	0.0	25.9	0.0	0.0	0.0	25.8	0.0	0.0	0.0
	Deciduous Orchard	17.8	0.0	0.0	0.0	17.8	0.0	0.0	0.0	17.8	0.0	0.0	0.0
	Small Grain	30.5	0.0	0.0	0.0	30.6	0.0	0.0	0.0	29.8	0.0	0.0	0.0
	<b>Subtotal</b>	<b>289.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>290.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>286.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
3B	Pasture	5.7	0.0	0.0	-5.7	5.8	0.1	0.1	-1.5	4.3	0.0	0.0	0.0
	Alfalfa	10.1	0.0	0.0	-10.1	10.2	0.1	0.1	-2.6	7.6	0.0	0.0	0.0
	Sugar Beets	5.6	0.0	0.0	-5.3	5.6	0.0	0.0	-2.8	5.1	0.0	0.0	0.0
	Other Field Crops	13.4	0.0	0.0	-13.4	13.5	0.0	0.0	-13.5	10.4	0.0	0.0	0.0
	Rice	9.6	0.0	0.0	-9.6	9.7	0.1	0.1	-9.7	6.2	0.0	0.0	0.0
	Truck Crops	0.6	0.0	0.0	-0.1	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0
	Tomatoes	6.1	0.0	0.0	-3.8	6.1	0.0	0.0	-1.8	5.7	0.0	0.0	0.0
	Deciduous Orchard	26.9	0.0	0.0	-3.3	26.9	0.0	0.0	0.0	26.9	0.0	0.0	0.0
	Small Grain	8.5	0.0	0.0	-8.5	8.6	0.0	0.0	-8.6	6.2	0.0	0.0	0.0
	Subtropical Orchard	1.0	0.0	0.0	-0.1	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
<b>Subtotal</b>	<b>87.6</b>	<b>0.0</b>	<b>0.0</b>	<b>-59.9</b>	<b>87.9</b>	<b>0.3</b>	<b>0.3</b>	<b>-40.4</b>	<b>74.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
4	Pasture	1.2	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.1	0.0	0.0	0.0
	Alfalfa	6.8	0.0	0.0	0.0	6.8	0.0	0.0	0.0	6.8	0.0	0.0	0.0
	Sugar Beets	10.3	0.0	0.0	0.0	10.3	0.0	0.0	0.0	10.3	0.0	0.0	0.0
	Other Field Crops	40.1	0.0	0.0	0.0	40.1	0.0	0.0	0.0	39.8	0.0	0.0	0.0
	Rice	87.8	0.0	0.0	0.0	87.9	0.0	0.0	0.0	87.1	0.0	0.0	0.0
	Truck Crops	17.1	0.0	0.0	0.0	17.1	0.0	0.0	0.0	17.1	0.0	0.0	0.0
	Tomatoes	34.1	0.0	0.0	0.0	34.1	0.0	0.0	0.0	34.0	0.0	0.0	0.0
	Deciduous Orchard	30.6	0.0	0.0	0.0	30.6	0.0	0.0	0.0	30.6	0.0	0.0	0.0
	Small Grain	47.5	0.0	0.0	0.0	47.6	0.0	0.0	0.0	46.8	0.0	0.0	0.0
<b>Subtotal</b>	<b>275.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>275.7</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.1</b>	<b>273.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
	Pasture	21.4	0.0	0.0	0.0	21.5	0.0	0.0	0.0	21.0	0.0	0.0	0.0
	Alfalfa	4.7	0.0	0.0	0.0	4.7	0.0	0.0	0.0	4.7	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		
5	Sugar Beets	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0
	Other Field Crops	15.4	0.0	0.0	0.0	15.4	0.0	0.0	0.0	15.4	0.0	0.0	0.0
	Rice	166.0	0.0	0.0	0.0	166.6	-0.1	-0.1	-0.1	165.2	-0.1	-0.1	-0.1
	Truck Crops	6.6	0.0	0.0	0.0	6.6	0.0	0.0	0.0	6.6	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	121.6	0.0	0.0	0.0	121.6	0.0	0.0	0.0	121.6	0.0	0.0	0.0
	Small Grain	22.3	0.0	0.0	0.0	22.4	0.0	0.0	0.0	21.9	0.0	0.0	0.0
	Subtropical Orchard	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0
<b>Subtotal</b>	<b>364.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>364.9</b>	<b>-0.2</b>	<b>-0.2</b>	<b>-0.1</b>	<b>362.4</b>	<b>-0.2</b>	<b>-0.2</b>	<b>-0.2</b>	
6	Pasture	12.1	0.0	0.0	0.0	12.5	-0.4	-0.4	-0.4	11.8	0.0	0.0	0.0
	Alfalfa	28.7	0.0	0.0	0.1	29.0	-0.3	-0.3	-0.3	28.6	0.0	0.0	0.0
	Sugar Beets	21.2	0.0	0.0	0.0	21.2	-0.1	-0.1	-0.1	21.1	0.0	0.0	0.0
	Other Field Crops	59.4	0.0	0.0	0.0	59.9	-0.5	-0.5	-0.5	59.1	0.0	0.0	0.0
	Rice	12.9	0.0	0.0	0.0	13.1	-0.2	-0.2	-0.2	12.8	0.0	0.0	0.0
	Truck Crops	3.4	0.0	0.0	0.0	3.4	0.0	0.0	0.0	3.4	0.0	0.0	0.0
	Tomatoes	45.8	0.0	0.0	0.0	45.9	-0.1	-0.1	-0.1	45.7	0.0	0.0	0.0
	Deciduous Orchard	24.6	0.0	0.0	0.0	24.6	0.0	0.0	0.0	24.6	0.0	0.0	0.0
	Small Grain	64.3	0.0	0.0	0.0	64.6	-0.4	-0.4	-0.4	63.3	0.2	0.2	0.2
Grapes	8.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	
<b>Subtotal</b>	<b>280.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>282.2</b>	<b>-1.9</b>	<b>-1.9</b>	<b>-1.8</b>	<b>278.4</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	
7	Pasture	14.5	0.0	0.0	0.0	14.5	0.0	0.0	0.0	14.2	0.0	0.0	0.0
	Alfalfa	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0
	Sugar Beets	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0
	Other Field Crops	3.8	0.0	0.0	0.0	3.8	0.0	0.0	0.0	3.8	0.0	0.0	0.0
	Rice	48.3	0.0	0.0	0.0	48.3	0.0	0.0	0.0	47.9	0.0	0.0	0.0
	Truck Crops	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	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	8.9	0.0	0.0	0.0	8.9	0.0	0.0	0.0	8.9	0.0	0.0	0.0
	Small Grain	9.4	0.0	0.0	0.0	9.3	0.0	0.0	0.0	9.2	0.0	0.0	0.0
Grapes	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	
<b>Subtotal</b>	<b>91.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>91.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>90.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
8	Pasture	47.7	0.0	0.0	0.0	47.6	0.0	0.0	0.0	46.9	0.0	0.0	0.0
	Alfalfa	12.3	0.0	0.0	0.0	12.3	0.0	0.0	0.0	12.2	0.0	0.0	0.0
	Sugar Beets	12.8	0.0	0.0	0.0	12.8	0.0	0.0	0.0	12.8	0.0	0.0	0.0
	Other Field Crops	42.7	0.0	0.0	0.0	42.7	0.0	0.0	0.0	42.5	0.0	0.0	0.0
	Rice	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	17.1	0.0	0.0	0.0	17.1	0.0	0.0	0.0	17.1	0.0	0.0	0.0
	Tomatoes	12.9	0.0	0.0	0.0	12.9	0.0	0.0	0.0	12.9	0.0	0.0	0.0
	Deciduous Orchard	46.9	0.0	0.0	0.0	46.9	0.0	0.0	0.0	46.9	0.0	0.0	0.0
	Small Grain	29.0	0.0	0.0	0.0	29.1	0.0	0.0	0.0	28.2	0.0	0.0	0.0
Grapes	58.9	0.0	0.0	0.0	58.9	0.0	0.0	0.0	58.9	0.0	0.0	0.0	
<b>Subtotal</b>	<b>284.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>284.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>282.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
9	Pasture	24.6	-0.2	-0.2	-0.1	24.6	-0.4	-0.4	-0.4	23.4	0.7	0.7	0.7
	Alfalfa	43.8	-0.1	-0.1	0.0	43.8	-0.2	-0.2	-0.2	43.1	0.4	0.4	0.4
	Sugar Beets	28.6	0.0	0.0	0.0	28.6	-0.1	-0.1	0.0	28.5	0.1	0.1	0.1
	Other Field Crops	114.9	-0.2	-0.2	-0.2	115.0	-0.4	-0.4	-0.4	113.6	0.7	0.7	0.7
	Rice	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0
	Truck Crops	46.0	0.0	0.0	0.0	46.0	0.0	0.0	0.0	46.0	0.0	0.0	0.0
	Tomatoes	42.5	0.0	0.0	0.0	42.5	0.0	0.0	0.0	42.3	0.1	0.1	0.1
	Deciduous Orchard	21.3	0.0	0.0	0.0	21.3	0.0	0.0	0.0	21.3	0.0	0.0	0.0
	Small Grain	96.8	-0.1	-0.1	-0.1	97.5	-0.3	-0.3	-0.3	93.7	1.0	1.0	1.0
Grapes	5.8	0.0	0.0	0.0	5.8	0.0	0.0	0.0	5.8	0.0	0.0	0.0	
<b>Subtotal</b>	<b>425.0</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.4</b>	<b>425.9</b>	<b>-1.5</b>	<b>-1.5</b>	<b>-1.4</b>	<b>418.4</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	



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		
10	Pasture	13.3	0.0	0.0	-0.2	13.3	0.0	0.0	0.0	13.3	0.0	0.0	0.0
	Alfalfa	40.8	0.0	0.0	-0.3	40.9	-0.1	0.0	-0.1	40.8	0.0	0.0	0.0
	Sugar Beets	13.9	0.0	0.0	0.0	13.9	0.0	0.0	0.0	13.9	0.0	0.0	0.0
	Other Field Crops	48.2	0.0	0.0	-0.1	48.2	0.1	0.0	0.0	48.3	0.0	0.0	0.0
	Rice	2.9	0.0	0.0	0.0	2.9	0.0	0.0	0.0	2.9	0.0	0.0	0.0
	Truck Crops	112.9	0.0	0.0	0.0	112.9	0.0	0.0	0.0	113.0	0.0	0.0	0.0
	Tomatoes	40.2	0.0	0.0	0.0	40.2	0.0	0.0	0.0	40.2	0.0	0.0	0.0
	Deciduous Orchard	36.6	0.0	0.0	0.0	36.6	0.0	0.0	0.0	36.6	0.0	0.0	0.0
	Small Grain	14.0	0.0	0.0	0.0	14.0	0.1	0.0	0.1	14.0	0.0	0.0	0.0
	Grapes	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
	Cotton	103.1	0.0	0.0	-0.5	103.1	-0.1	0.0	-0.1	103.1	0.0	0.0	0.0
	Subtropical Orchard	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
<b>Subtotal</b>	<b>427.1</b>	<b>0.0</b>	<b>0.0</b>	<b>-1.1</b>	<b>427.2</b>	<b>-0.1</b>	<b>0.0</b>	<b>-0.1</b>	<b>427.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
11	Pasture	42.9	0.0	0.0	0.0	43.0	0.0	0.0	0.0	42.7	0.0	0.0	0.0
	Alfalfa	8.4	0.0	0.0	0.0	8.4	0.0	0.0	0.0	8.3	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	17.8	0.0	0.0	0.0	17.9	0.0	0.0	0.0	17.8	0.0	0.0	0.0
	Rice	4.4	0.0	0.0	0.0	4.4	0.0	0.0	0.0	4.4	0.0	0.0	0.0
	Truck Crops	6.3	0.0	0.0	0.0	6.3	0.0	0.0	0.0	6.3	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	80.8	0.0	0.0	0.0	80.8	0.0	0.0	0.0	80.8	0.0	0.0	0.0
	Small Grain	1.8	0.0	0.0	0.0	1.8	0.0	0.0	0.0	1.8	0.0	0.0	0.0
	Grapes	10.4	0.0	0.0	0.0	10.4	0.0	0.0	0.0	10.4	0.0	0.0	0.0
<b>Subtotal</b>	<b>174.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>174.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>173.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
12	Pasture	18.3	0.0	0.0	0.0	18.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0
	Alfalfa	18.2	0.0	0.0	0.0	18.1	0.0	0.0	0.0	18.1	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	41.2	0.0	0.0	0.0	41.0	0.0	0.0	0.0	41.0	0.0	0.0	0.0
	Truck Crops	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	94.0	0.0	0.0	0.0	94.0	0.0	0.0	0.0	94.0	0.0	0.0	0.0
	Small Grain	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	9.9	0.0	0.0	0.0
	Grapes	14.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	14.0	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	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
<b>Subtotal</b>	<b>200.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>200.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>200.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
13	Pasture	39.6	0.0	0.0	0.0	39.9	-0.2	-0.2	-0.3	39.5	-0.3	-0.3	-0.3
	Alfalfa	41.8	0.0	0.0	0.1	42.1	-0.2	-0.2	-0.2	41.8	-0.2	-0.2	-0.2
	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	54.8	0.0	0.0	0.0	55.0	-0.1	-0.1	-0.2	54.6	-0.1	-0.1	-0.1
	Rice	3.9	0.0	0.0	0.0	3.9	0.0	0.0	0.0	3.9	0.0	0.0	0.0
	Truck Crops	18.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0
	Tomatoes	7.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0
	Deciduous Orchard	135.0	0.0	0.0	0.0	135.0	0.0	0.0	0.0	135.0	0.0	0.0	0.0
	Small Grain	46.9	0.0	0.0	0.0	47.2	-0.1	-0.1	-0.1	46.4	-0.1	-0.1	-0.1
	Grapes	99.0	0.0	0.0	0.0	99.0	0.0	0.0	0.0	99.0	0.0	0.0	0.0
	Cotton	71.8	0.0	0.0	0.0	72.1	-0.2	-0.2	-0.3	71.6	-0.2	-0.2	-0.2
Subtropical Orchard	9.9	0.0	0.0	0.0	9.9	0.0	0.0	0.0	9.9	0.0	0.0	0.0	
<b>Subtotal</b>	<b>532.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>534.1</b>	<b>-0.9</b>	<b>-0.9</b>	<b>-1.1</b>	<b>531.6</b>	<b>-0.9</b>	<b>-0.9</b>	<b>-0.9</b>	

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
<b>Subtotal</b>	<b>500.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>500.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>489.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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	
<b>Subtotal</b>	<b>600.1</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.1</b>	<b>601.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>585.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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
	<b>Subtotal</b>	<b>111.4</b>	<b>-0.1</b>	<b>-0.1</b>	<b>0.0</b>	<b>111.8</b>	<b>-0.4</b>	<b>-0.4</b>	<b>-0.4</b>	<b>111.3</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>
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
<b>Subtotal</b>	<b>260.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>260.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>255.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
	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

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		
18	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
	<b>Subtotal</b>	<b>592.5</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.1</b>	<b>594.9</b>	<b>-1.2</b>	<b>-1.2</b>	<b>-1.2</b>	<b>577.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>
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	
<b>Subtotal</b>	<b>253.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>253.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>249.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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	
<b>Subtotal</b>	<b>202.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>203.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>199.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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	
<b>Subtotal</b>	<b>359.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>359.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>357.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	

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			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	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
	<b>Subtotal</b>	<b>8.4</b>	<b>-0.2</b>	<b>-0.1</b>	<b>0.0</b>	<b>8.3</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.3</b>	<b>8.3</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.3</b>
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
<b>Subtotal</b>	<b>189.5</b>	<b>0.0</b>	<b>0.0</b>	<b>-1.3</b>	<b>189.4</b>	<b>0.0</b>	<b>0.0</b>	<b>-2.1</b>	<b>189.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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	0.0	0.0	0.0	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
<b>Subtotal</b>	<b>298.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>299.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>295.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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	
<b>Subtotal</b>	<b>67.9</b>	<b>0.0</b>	<b>0.0</b>	<b>-36.2</b>	<b>68.1</b>	<b>0.1</b>	<b>0.1</b>	<b>-23.1</b>	<b>60.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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	0.0	0.0	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
<b>Subtotal</b>	<b>260.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>260.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>259.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	

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		
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	-0.1	-0.1	-0.1	140.5	-0.1	-0.1	-0.1
	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
<b>Subtotal</b>	<b>320.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>320.5</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>	<b>319.1</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>	
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	0.0	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	-0.1	-0.1	-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
<b>Subtotal</b>	<b>220.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>221.2</b>	<b>-0.9</b>	<b>-0.9</b>	<b>-0.9</b>	<b>219.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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	0.0	0.0	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
<b>Subtotal</b>	<b>62.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>62.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>61.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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
<b>Subtotal</b>	<b>299.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>300.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>299.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	

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		
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
<b>Subtotal</b>	<b>426.8</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.1</b>	<b>427.2</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.6</b>	<b>424.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	
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	
<b>Subtotal</b>	<b>1015.1</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.8</b>	<b>1015.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1015.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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
<b>Subtotal</b>	<b>207.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>207.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>207.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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
<b>Subtotal</b>	<b>231.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>230.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>230.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	

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		
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	
<b>Subtotal</b>	<b>710.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>711.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.7</b>	<b>709.9</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.6</b>	
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
<b>Subtotal</b>	<b>1253.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1253.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1241.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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	
<b>Subtotal</b>	<b>683.2</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.1</b>	<b>684.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>671.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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
	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	
<b>Subtotal</b>	<b>224.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>224.5</b>	<b>-0.2</b>	<b>-0.2</b>	<b>-0.2</b>	<b>224.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	

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		
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
<b>Subtotal</b>	<b>565.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>565.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>562.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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
<b>Subtotal</b>	<b>974.2</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.1</b>	<b>976.1</b>	<b>-1.0</b>	<b>-1.0</b>	<b>-1.0</b>	<b>961.5</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	
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
<b>Subtotal</b>	<b>433.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>433.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>429.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
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
<b>Subtotal</b>	<b>603.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>604.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>600.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	



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		
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
	<b>Subtotal</b>	<b>1047.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1047.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1045.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

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	1.8	-0.1	0.0	0.0	1.8	-0.1	-0.1	-0.1	1.7	-0.1	-0.1	-0.1	
	Groundwater Pumping Cost	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	0.1	0.1	
	Irrigation Cost	2.3	-0.2	-0.2	-0.2	-2.3	-0.2	-0.2	-0.2	-2.3	-0.2	-0.2	-0.2	
	CVP Water Cost	0.6	0.3	0.2	0.1	-0.7	0.4	0.4	0.4	-0.7	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	0.0	0.0	0.0	
	<b>Net Change</b>		<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>-1.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>-1.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	
2	Fallowed Land	30.1	0.0	0.0	-0.3	30.1	0.0	0.0	-0.4	30.0	0.0	0.0	0.0	
	Groundwater Pumping Cost	20.4	0.0	0.0	0.0	-19.9	0.0	0.0	0.0	-24.6	0.0	0.0	0.0	
	Irrigation Cost	22.1	0.0	0.0	0.0	-22.1	0.0	0.0	0.0	-21.9	0.0	0.0	0.0	
	CVP Water Cost	0.4	-0.2	0.0	0.1	-0.6	-0.6	-0.2	0.5	-0.1	0.0	0.0	-0.1	
	Higher Crop Prices	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	
	<b>Net Change</b>		<b>-0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>-12.4</b>	<b>-0.6</b>	<b>-0.2</b>	<b>0.1</b>	<b>-16.5</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.1</b>	
3	Fallowed Land	39.3	0.0	0.0	0.0	39.4	0.0	0.0	0.0	38.9	0.0	0.0	0.0	
	Groundwater Pumping Cost	9.0	0.0	0.0	0.0	-7.9	0.0	0.0	0.0	-14.5	0.0	0.0	0.0	
	Irrigation Cost	21.2	0.0	0.0	0.0	-21.3	0.0	0.0	0.0	-21.0	0.0	0.0	0.0	
	CVP Water Cost	1.6	0.0	0.0	0.0	-1.6	-0.2	-0.2	-0.2	-1.4	-0.3	-0.3	-0.3	
	Higher Crop Prices	0.2	0.0	0.0	0.3	0.1	0.0	0.0	0.2	0.4	0.0	0.0	0.0	
	<b>Net Change</b>		<b>0.0</b>	<b>0.0</b>	<b>0.3</b>	<b>8.7</b>	<b>-0.2</b>	<b>-0.2</b>	<b>0.0</b>	<b>2.4</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.3</b>	
3B	Fallowed Land	11.9	0.0	0.0	-6.4	11.9	0.0	0.0	-3.8	10.6	0.0	0.0	0.0	
	Groundwater Pumping Cost	3.0	0.0	0.0	0.0	-1.8	1.4	1.4	-4.1	-8.3	0.0	0.0	0.0	
	Irrigation Cost	9.0	0.0	0.0	0.0	-9.1	0.0	0.0	0.0	-7.7	0.0	0.0	0.0	
	CVP Water Cost	3.7	-0.4	1.4	3.7	-4.2	-4.7	-1.2	4.2	-0.9	0.2	0.2	-0.3	
	Higher Crop Prices	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	
	<b>Net Change</b>		<b>-0.4</b>	<b>1.4</b>	<b>-2.8</b>	<b>-3.1</b>	<b>-3.3</b>	<b>0.2</b>	<b>-3.7</b>	<b>-6.3</b>	<b>0.2</b>	<b>0.2</b>	<b>-0.3</b>	
4	Fallowed Land	34.3	0.0	0.0	0.0	34.3	0.0	0.0	0.0	34.1	0.0	0.0	0.0	
	Groundwater Pumping Cost	9.3	0.0	0.0	0.0	-8.5	0.0	0.0	0.0	-13.5	0.0	0.0	0.0	
	Irrigation Cost	20.2	0.0	0.0	0.0	-20.3	0.0	0.0	0.0	-20.1	0.0	0.0	0.0	
	CVP Water Cost	1.3	0.0	0.0	0.0	-1.3	-0.1	-0.1	-0.1	-1.1	-0.2	-0.2	-0.2	
	Higher Crop Prices	0.2	0.0	0.0	0.3	0.1	0.0	0.0	0.1	0.3	0.0	0.0	0.0	
	<b>Net Change</b>		<b>0.0</b>	<b>0.0</b>	<b>0.3</b>	<b>4.4</b>	<b>-0.1</b>	<b>-0.1</b>	<b>0.0</b>	<b>-0.3</b>	<b>-0.2</b>	<b>-0.2</b>	<b>-0.2</b>	
5	Fallowed Land	53.4	0.0	0.0	0.0	53.5	0.0	0.0	0.0	53.2	0.0	0.0	0.0	
	Groundwater Pumping Cost	14.9	0.0	0.0	0.0	-13.0	0.0	0.0	0.0	-18.7	0.0	0.0	0.0	
	Irrigation Cost	22.5	0.0	0.0	0.0	-22.6	0.0	0.0	0.0	-22.4	0.0	0.0	0.0	
	CVP Water Cost	0.2	-0.3	-0.3	-0.3	-0.2	-0.3	-0.3	-0.3	-0.2	-0.3	-0.3	-0.3	
	Higher Crop Prices	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0	
	<b>Net Change</b>		<b>-0.3</b>	<b>-0.3</b>	<b>0.0</b>	<b>17.7</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.2</b>	<b>12.1</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.3</b>	
6	Fallowed Land	32.3	0.0	0.0	0.0	32.5	-0.2	-0.2	-0.2	32.2	0.0	0.0	0.0	
	Groundwater Pumping Cost	14.9	0.0	0.0	0.0	-14.4	0.3	0.3	0.3	-17.6	-0.1	-0.1	-0.1	
	Irrigation Cost	21.6	0.0	0.0	0.0	-21.8	0.0	0.0	0.0	-21.5	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	0.0	0.0	0.0	
	Higher Crop Prices	0.3	0.0	0.0	0.4	0.2	0.0	0.0	0.2	0.5	0.0	0.0	0.0	
	<b>Net Change</b>		<b>0.0</b>	<b>0.0</b>	<b>0.4</b>	<b>-3.6</b>	<b>0.1</b>	<b>0.1</b>	<b>0.3</b>	<b>-6.4</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>	
7	Fallowed Land	10.5	0.0	0.0	0.0	10.5	0.0	0.0	0.0	10.4	0.0	0.0	0.0	
	Groundwater Pumping Cost	7.6	0.0	0.0	0.0	-6.9	0.0	0.0	0.0	-9.1	0.0	0.0	0.0	
	Irrigation Cost	4.4	0.0	0.0	0.0	-4.4	0.0	0.0	0.0	-4.3	0.0	0.0	0.0	
	CVP Water Cost	0.3	-0.1	-0.1	-0.1	-0.3	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	
	Higher Crop Prices	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	
	<b>Net Change</b>		<b>-0.1</b>	<b>-0.1</b>	<b>0.0</b>	<b>-1.0</b>	<b>-0.1</b>	<b>-0.1</b>	<b>0.0</b>	<b>-3.1</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>	

**TABLE 19 CHANGES IN NET REVENUE BY SUBREGION (MILLION \$)**

8	Fallowed Land	46.4	0.0	0.0	0.0	46.5	0.0	0.0	0.0	46.4	0.0	0.0	0.0
	Groundwater Pumping Cost	30.8	0.0	0.0	0.0	-29.1	0.1	0.1	0.1	-35.4	-0.1	-0.1	-0.1
	Irrigation Cost	21.1	0.0	0.0	0.0	-21.1	0.0	0.0	0.0	-21.0	0.0	0.0	0.0
	CVP Water Cost	0.3	-0.8	-0.5	-1.6	-0.5	-2.0	-1.2	-2.8	-0.1	-0.3	-0.3	-0.4
	Higher Crop Prices	0.2	0.0	0.0	0.2	0.2	0.0	0.0	0.1	0.3	0.0	0.0	0.0
	<b>Net Change</b>		<b>-0.8</b>	<b>-0.5</b>	<b>-1.3</b>	<b>-4.1</b>	<b>-1.9</b>	<b>-1.0</b>	<b>-2.5</b>	<b>-9.8</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.5</b>
9	Fallowed Land	52.9	-0.1	-0.1	0.0	52.9	-0.1	-0.1	-0.1	52.4	0.2	0.2	0.2
	Groundwater Pumping Cost	2.5	-0.6	-0.6	-0.6	-2.1	-1.2	-1.2	-1.2	-3.2	-0.4	-0.4	-0.4
	Irrigation Cost	34.4	-0.3	-0.3	-0.3	-34.4	-0.3	-0.3	-0.3	-33.9	-0.3	-0.3	-0.3
	CVP Water Cost	1.2	1.2	1.2	1.2	-2.0	2.0	2.0	2.0	-0.5	0.5	0.5	0.5
	Higher Crop Prices	0.3	0.0	0.0	0.5	0.3	0.0	0.0	0.2	0.6	0.0	0.0	0.0
	<b>Net Change</b>		<b>0.3</b>	<b>0.3</b>	<b>0.7</b>	<b>14.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.7</b>	<b>15.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
10	Fallowed Land	97.8	0.0	0.0	-0.1	97.8	0.0	0.0	0.0	97.8	0.0	0.0	0.0
	Groundwater Pumping Cost	15.4	0.0	0.0	-6.8	-12.5	-8.3	-0.8	-8.6	-20.6	0.0	0.0	0.0
	Irrigation Cost	38.9	0.0	0.0	0.0	-38.9	0.0	0.0	0.0	-38.9	0.0	0.0	0.0
	CVP Water Cost	6.3	-0.1	0.4	6.3	-8.1	7.9	0.7	8.1	-3.2	0.2	0.2	-0.1
	Higher Crop Prices	0.5	0.0	0.0	0.4	0.4	0.0	0.0	0.2	0.9	0.0	0.0	0.0
	<b>Net Change</b>		<b>-0.1</b>	<b>0.4</b>	<b>-0.1</b>	<b>38.7</b>	<b>-0.5</b>	<b>0.0</b>	<b>-0.3</b>	<b>36.0</b>	<b>0.2</b>	<b>0.2</b>	<b>-0.1</b>
11	Fallowed Land	35.5	0.0	0.0	0.0	35.5	0.0	0.0	0.0	35.4	0.0	0.0	0.0
	Groundwater Pumping Cost	1.0	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	-1.1	0.0	0.0	0.0
	Irrigation Cost	16.0	0.0	0.0	0.0	-16.0	0.0	0.0	0.0	-16.0	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	0.0	0.0	0.0
	Higher Crop Prices	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0
	<b>Net Change</b>		<b>0.0</b>	<b>0.0</b>	<b>0.3</b>	<b>18.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>18.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
12	Fallowed Land	41.8	0.0	0.0	0.0	41.7	0.0	0.0	0.0	41.7	0.0	0.0	0.0
	Groundwater Pumping Cost	6.1	0.0	0.0	0.0	-4.8	0.0	0.0	0.0	-8.4	0.0	0.0	0.0
	Irrigation Cost	19.9	0.0	0.0	0.0	-19.8	0.0	0.0	0.0	-19.8	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	0.0	0.0	0.0
	Higher Crop Prices	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0
	<b>Net Change</b>		<b>0.0</b>	<b>0.0</b>	<b>0.3</b>	<b>17.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>13.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
13	Fallowed Land	112.2	0.0	0.0	0.0	112.3	-0.1	-0.1	-0.1	112.1	-0.1	-0.1	-0.1
	Groundwater Pumping Cost	38.4	0.8	0.7	-2.7	-33.9	1.6	1.6	-4.9	-50.7	0.2	0.2	0.2
	Irrigation Cost	53.6	0.0	0.0	0.0	-53.8	0.0	0.0	0.0	-53.6	0.0	0.0	0.0
	CVP Water Cost	6.8	-0.8	-0.6	2.1	-6.4	-1.7	-1.5	4.3	-5.4	-0.2	-0.2	-0.4
	Higher Crop Prices	0.4	0.0	0.0	0.5	0.4	0.0	0.0	0.2	0.8	0.0	0.0	0.0
	<b>Net Change</b>		<b>0.0</b>	<b>0.1</b>	<b>-0.1</b>	<b>18.7</b>	<b>-0.1</b>	<b>0.0</b>	<b>-0.5</b>	<b>3.3</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.3</b>
14	Fallowed Land	111.5	0.0	0.0	0.0	111.5	0.0	0.0	0.0	110.3	0.0	0.0	0.0
	Groundwater Pumping Cost	81.1	0.0	0.0	0.0	-58.3	0.0	0.0	0.0	-118.6	0.0	0.0	0.0
	Irrigation Cost	62.8	0.0	0.0	0.0	-62.8	0.0	0.0	0.0	-61.1	0.0	0.0	0.0
	CVP Water Cost	32.8	1.3	3.5	-6.0	-45.1	1.8	6.4	-5.5	-14.4	-6.3	-6.3	-7.3
	Higher Crop Prices	0.7	0.0	0.0	0.5	0.6	0.0	0.0	0.2	1.2	0.0	0.0	0.0
	<b>Net Change</b>		<b>1.3</b>	<b>3.5</b>	<b>-5.6</b>	<b>-53.9</b>	<b>1.8</b>	<b>6.4</b>	<b>-5.3</b>	<b>-82.6</b>	<b>-6.3</b>	<b>-6.3</b>	<b>-7.3</b>
15	Fallowed Land	94.1	0.0	0.0	0.0	94.2	0.0	0.0	0.0	92.6	0.0	0.0	0.0
	Groundwater Pumping Cost	81.0	0.0	0.0	0.0	-69.3	0.3	0.3	0.3	-102.9	-1.5	-1.5	-1.5
	Irrigation Cost	61.8	0.0	0.0	0.0	-61.9	0.0	0.0	0.0	-60.3	0.0	0.0	0.0
	CVP Water Cost	1.8	-0.3	-0.2	-0.4	-1.9	-0.2	-0.2	-0.3	-1.5	-0.4	-0.4	-0.5
	Higher Crop Prices	0.7	0.0	0.0	0.4	0.6	0.1	0.0	0.2	1.5	0.0	0.0	0.0
	<b>Net Change</b>		<b>-0.3</b>	<b>-0.2</b>	<b>0.1</b>	<b>-38.3</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>-70.7</b>	<b>-1.9</b>	<b>-1.9</b>	<b>-1.9</b>
16	Fallowed Land	37.3	0.0	0.0	0.0	37.3	0.0	0.0	0.0	37.3	0.0	0.0	0.0
	Groundwater Pumping Cost	1.9	-0.6	-0.6	-0.6	0.0	-0.5	-0.5	-0.5	-4.3	-0.5	-0.5	-0.5
	Irrigation Cost	11.0	0.0	0.0	0.0	-11.1	0.0	0.0	0.0	-11.0	0.0	0.0	0.0
	CVP Water Cost	0.7	0.7	0.7	0.7	-0.7	0.7	0.7	0.7	-0.5	0.5	0.5	0.5
	Higher Crop Prices	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0
	<b>Net Change</b>		<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>25.7</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>21.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**TABLE 19 CHANGES IN NET REVENUE BY SUBREGION (MILLION \$)**

17	Fallowed Land	95.8	0.0	0.0	0.0	95.8	0.0	0.0	0.0	95.2	0.0	0.0	0.0
	Groundwater Pumping Cost	17.7	0.2	0.2	0.2	-12.7	0.3	0.3	0.3	-25.5	0.0	0.0	0.0
	Irrigation Cost	27.8	0.0	0.0	0.0	-27.8	0.0	0.0	0.0	-27.4	0.0	0.0	0.0
	CVP Water Cost	1.4	-0.1	-0.1	-0.3	-1.2	-0.4	-0.3	-0.5	-1.1	0.0	0.0	-0.1
	Higher Crop Prices	0.2	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0
	<b>Net Change</b>		<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>54.2</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.1</b>	<b>41.5</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.1</b>
18	Fallowed Land	153.6	0.0	0.0	0.0	153.9	-0.1	-0.1	-0.1	151.9	0.0	0.0	0.0
	Groundwater Pumping Cost	57.9	0.0	0.0	0.0	-46.2	0.2	0.2	0.2	-78.0	0.0	0.0	0.0
	Irrigation Cost	64.9	0.0	0.0	0.0	-65.1	0.0	0.0	0.0	-63.2	0.0	0.0	0.0
	CVP Water Cost	17.7	-1.5	-1.0	-3.3	-17.7	-2.2	-1.7	-3.9	-15.2	0.8	0.8	0.0
	Higher Crop Prices	0.6	0.0	0.0	0.4	0.5	0.0	0.0	0.1	1.1	0.0	0.0	0.0
	<b>Net Change</b>		<b>-1.5</b>	<b>-1.0</b>	<b>-2.9</b>	<b>25.3</b>	<b>-2.1</b>	<b>-1.6</b>	<b>-3.7</b>	<b>-3.4</b>	<b>0.8</b>	<b>0.8</b>	<b>0.0</b>
19	Fallowed Land	54.3	0.0	0.0	0.0	54.3	0.0	0.0	0.0	53.9	0.0	0.0	0.0
	Groundwater Pumping Cost	31.6	0.0	0.0	0.0	-21.3	0.2	0.2	0.2	-51.5	-1.2	-1.2	-1.2
	Irrigation Cost	28.8	0.0	0.0	0.0	-28.8	0.0	0.0	0.0	-28.3	0.0	0.0	0.0
	CVP Water Cost	0.5	-0.5	-0.5	-0.6	-0.6	-0.5	-0.5	-0.5	-0.4	-0.5	-0.5	-0.5
	Higher Crop Prices	0.3	0.0	0.0	0.2	0.3	0.0	0.0	0.1	0.6	0.0	0.0	0.0
	<b>Net Change</b>		<b>-0.5</b>	<b>-0.5</b>	<b>-0.3</b>	<b>3.9</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-25.7</b>	<b>-1.8</b>	<b>-1.8</b>	<b>-1.8</b>
20	Fallowed Land	81.5	0.0	0.0	0.0	81.5	0.0	0.0	0.0	81.0	0.0	0.0	0.0
	Groundwater Pumping Cost	24.7	0.0	0.0	0.0	-19.7	0.0	0.0	0.0	-36.6	-0.2	-0.2	-0.2
	Irrigation Cost	20.9	0.0	0.0	0.0	-20.9	0.0	0.0	0.0	-20.5	0.0	0.0	0.0
	CVP Water Cost	9.2	-0.1	0.2	-0.9	-9.5	-0.3	-0.1	-1.1	-7.0	-0.2	-0.2	-0.5
	Higher Crop Prices	0.2	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.3	0.0	0.0	0.0
	<b>Net Change</b>		<b>-0.1</b>	<b>0.2</b>	<b>-0.8</b>	<b>31.5</b>	<b>-0.3</b>	<b>0.0</b>	<b>-1.1</b>	<b>17.2</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.7</b>
21	Fallowed Land	112.4	0.0	0.0	0.0	112.4	0.0	0.0	0.0	112.1	0.0	0.0	0.0
	Groundwater Pumping Cost	49.3	0.0	0.0	0.0	-37.6	0.2	0.2	0.2	-68.4	-0.8	-0.8	-0.8
	Irrigation Cost	37.1	0.0	0.0	0.0	-37.1	0.0	0.0	0.0	-36.8	0.0	0.0	0.0
	CVP Water Cost	8.4	0.1	0.3	-0.5	-9.6	0.2	0.5	-0.4	-5.5	-0.7	-0.7	-0.9
	Higher Crop Prices	0.4	0.0	0.0	0.2	0.4	0.0	0.0	0.1	0.7	0.0	0.0	0.0
	<b>Net Change</b>		<b>0.1</b>	<b>0.3</b>	<b>-0.3</b>	<b>28.5</b>	<b>0.4</b>	<b>0.7</b>	<b>-0.1</b>	<b>2.1</b>	<b>-1.5</b>	<b>-1.5</b>	<b>-1.7</b>
Total	Fallowed Land		-0.1	0.0	-6.8	1100.4	-0.4	-0.3	-4.6	1093.0	-0.2	-0.2	-0.2
	Groundwater Pumping		0.4	0.4	-9.9	-364.0	-4.4	3.1	-16.6	-616.9	-4.0	-4.0	-4.0
	Irrigation Cost		-0.3	-0.3	-0.3	-503.5	-0.3	-0.3	-0.3	-496.0	-0.3	-0.3	-0.3
	CVP Water Cost		-1.3	4.3	2.3	-91.1	0.0	2.9	6.5	-42.5	-8.0	-7.9	-10.7
	Higher Crop Prices		0.1	0.0	4.7	4.1	0.4	0.4	1.9	8.6	0.0	0.0	0.0
	<b>Net Change</b>		<b>-1.1</b>	<b>4.4</b>	<b>-10.0</b>	<b>146.0</b>	<b>-4.6</b>	<b>5.8</b>	<b>-13.2</b>	<b>-53.9</b>	<b>-12.4</b>	<b>-12.4</b>	<b>-15.1</b>

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	0.0	-0.1	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	0.0	0.0	0.0	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	-38.4	-38.2	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	0.0	0.0	0.0	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	-1.1	-1.0	-0.4	588.7	-1.1	-1.0	-1.1
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	-6.4	-6.4	-6.0	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	0.0	0.0	0.0	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	-0.2	-0.2	-0.1
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	35.6	35.6	36.0	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	-0.1
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	-36.2	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
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	0.0
	Groundwater	366.8	0.1	0.0	-0.1	250.7	0.0	0.0	0.0	578.4	0.0	0.0	0.0
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	-37.8
	Groundwater	9,596.5	11.9	12.3	269.2	8,114.6	182.8	-21.6	474.0	12,527.1	16.1	16.2	16.1

Notes:

1. All quantities in thousands of acre-feet
2. A negative value represents a lower quantity 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 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 would have been recharged.
3B	Shift from Groundwater to CVP water in Average 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 Average, 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 the now affordable CVP supply.
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 the subregions water supply is taken from the CVP supplies.

**TABLE 21 SUBREGION OF SIGNIFICANT CHANGES IN WATER USE**

<b>Subregion</b>	<b>Outcome</b>	<b>Explanation</b>
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 LTRC 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.

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**SECTION 2**  
**REGIONAL ECONOMICS**



## SECTION 2 REGIONAL ECONOMICS

This analysis identifies the regional economic impacts of two out of the nine total Long Term Contract Renewal sequences; an Average year following and Average 5-year base condition, and a Average year following a Dry 5-year base condition. 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 Average year following the Dry 5-year base condition 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 year following an Average 5-year base condition, Tables 25 and 26 the Average year following an Wet 5-year base condition, and Tables 27 and 28 the Average year following an Dry 5-year base condition. 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, changes in net farm income, 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.

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### **AVERAGE YEAR FOLLOWING AVERAGE 5-YEAR BASE CONDITION**

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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.

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### **AVERAGE YEAR FOLLOWING DRY 5-YEAR BASE CONDITON**

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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 22

**REGIONAL ECONOMIC IMPACTS ON ALL SECTORS: AVERAGE YEAR FOLLOWING AVERAGE 5-YEAR  
BASE CONDITION COMPARED TO THE PREFERRED ALTERNATIVE AVERAGE YEAR CONDITION**

Region Directly Impacted	Impacts on all Sectors					
	Employment (# of jobs)		Output (\$MM)		PoW Income (\$MM)	
	Direct	Total	Direct	Total	Direct	Total
<b>Sacramento River</b>						
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
<b>TOTAL 1/</b>	<b>-90</b>	<b>-190</b>	<b>-5.3</b>	<b>-12.0</b>	<b>-2.8</b>	<b>-6.6</b>
<b>San Joaquin River</b>						
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
<b>TOTAL 1/</b>	<b>-60</b>	<b>-120</b>	<b>-4.3</b>	<b>-7.9</b>	<b>-2.2</b>	<b>-4.2</b>
<b>Tulare Lake</b>						
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
<b>TOTAL 1/</b>	<b>-50</b>	<b>-80</b>	<b>-2.1</b>	<b>-4.1</b>	<b>-1.1</b>	<b>-2.2</b>
<b>Bay Area</b>						
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
<b>TOTAL 1/</b>	<b>-60</b>	<b>-130</b>	<b>-4.6</b>	<b>-9.8</b>	<b>-2.5</b>	<b>-5.6</b>
<b>California Total</b>						
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
<b>TOTAL 1/</b>	<b>-260</b>	<b>-530</b>	<b>-16.3</b>	<b>-33.9</b>	<b>-8.6</b>	<b>-18.6</b>

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

**TABLE 23 REGIONAL ECONOMIC IMPACT: AVERAGE YEAR FOLLOWING AVERAGE 5-YEAR BASE CONDITION 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
	<b>Sacramento River</b>					
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
<b>TOTAL/1</b>	<b>-90</b>	<b>-190</b>	<b>-5.3</b>	<b>-12.0</b>	<b>-2.8</b>	<b>-6.6</b>
<b>San Joaquin River</b>						
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
<b>TOTAL/1</b>	<b>-60</b>	<b>-120</b>	<b>-4.3</b>	<b>-7.9</b>	<b>-2.2</b>	<b>-4.2</b>
<b>Tulare Lake</b>						
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
<b>TOTAL/1</b>	<b>-50</b>	<b>-80</b>	<b>-2.1</b>	<b>-4.1</b>	<b>-1.1</b>	<b>-4.1</b>

**TABLE 23 REGIONAL ECONOMIC IMPACT: AVERAGE YEAR FOLLOWING AVERAGE 5-YEAR BASE CONDITION 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
<b>Bay Area</b>						
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
<b>TOTAL/1</b>	<b>-60</b>	<b>-130</b>	<b>-4.6</b>	<b>-9.8</b>	<b>-2.5</b>	<b>-5.6</b>
<b>California Total</b>						
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
<b>TOTAL/1</b>	<b>-260</b>	<b>-530</b>	<b>-16.3</b>	<b>-33.9</b>	<b>-8.6</b>	<b>-20.5</b>
Note:(1) May differ from sum of elements due to rounding.						

Table 24

**REGIONAL ECONOMIC IMPACTS ON ALL SECTORS: AVERAGE YEAR FOLLOWING WET 5-YEAR  
BASE CONDITION COMPARED TO THE PREFERRED ALTERNATIVE AVERAGE YEAR CONDITION**

Region Directly Impacted	Impacts on all Sectors					
	Employment (# of jobs)		Output (\$MM)		PoW Income (\$MM)	
	Direct	Total	Direct	Total	Direct	Total
<b>Sacramento River</b>						
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
<b>TOTAL 1/</b>	<b>-40</b>	<b>-90</b>	<b>-3.3</b>	<b>-6.7</b>	<b>-1.6</b>	<b>-3.6</b>
<b>San Joaquin River</b>						
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
<b>TOTAL 1/</b>	<b>20</b>	<b>10</b>	<b>-1.4</b>	<b>-1.6</b>	<b>-0.6</b>	<b>-0.7</b>
<b>Tulare Lake</b>						
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
<b>TOTAL 1/</b>	<b>-30</b>	<b>-40</b>	<b>-1.1</b>	<b>-2.1</b>	<b>-0.6</b>	<b>-1.1</b>
<b>Bay Area</b>						
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
<b>TOTAL 1/</b>	<b>-60</b>	<b>-130</b>	<b>-4.5</b>	<b>-9.6</b>	<b>-2.5</b>	<b>-5.5</b>
<b>California Total</b>						
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
<b>TOTAL 1/</b>	<b>-100</b>	<b>-240</b>	<b>-10.3</b>	<b>-20.1</b>	<b>-5.3</b>	<b>-11.0</b>

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

**TABLE 25 REGIONAL ECONOMIC IMPACT: AVERAGE YEAR FOLLOWING WET 5-YEAR BASE CONDITION 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
<b>Sacramento River</b>						
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
<b>TOTAL/1</b>	<b>-40</b>	<b>-90</b>	<b>-3.3</b>	<b>-6.7</b>	<b>-1.6</b>	<b>-3.6</b>
<b>San Joaquin River</b>						
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
<b>TOTAL/1</b>	<b>20</b>	<b>10</b>	<b>-1.4</b>	<b>-1.6</b>	<b>-0.6</b>	<b>-0.7</b>
<b>Tulare Lake</b>						
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
<b>TOTAL/1</b>	<b>-30</b>	<b>-40</b>	<b>-1.1</b>	<b>-2.1</b>	<b>-0.6</b>	<b>-2.1</b>
<b>Bay Area</b>						
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
<b>TOTAL/1</b>	<b>-60</b>	<b>-130</b>	<b>-4.5</b>	<b>-9.6</b>	<b>-2.5</b>	<b>-5.5</b>

**TABLE 25 REGIONAL ECONOMIC IMPACT: AVERAGE YEAR FOLLOWING WET 5-YEAR BASE CONDITION 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
<b>California Total</b>						
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
<b>TOTAL/1</b>	<b>-100</b>	<b>-250</b>	<b>-10.3</b>	<b>-20.1</b>	<b>-5.3</b>	<b>-12.0</b>

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

TABLE 26

**REGIONAL ECONOMIC IMPACTS ON ALL SECTORS: AVERAGE YEAR FOLLOWING DRY 5-YEAR  
BASE CONDITION COMPARED TO THE PREFERRED ALTERNATIVE AVERAGE YEAR CONDITION**

Region Directly Impacted	Impacts on all Sectors					
	Employment (# of jobs)		Output (\$MM)		PoW Income (\$MM)	
	Direct	Total	Direct	Total	Direct	Total
<b>Sacramento River</b>						
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
<b>TOTAL 1/</b>	<b>-630</b>	<b>-2140</b>	<b>-91.8</b>	<b>-191.6</b>	<b>-30.5</b>	<b>-85.2</b>
<b>San Joaquin River</b>						
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
<b>TOTAL 1/</b>	<b>-230</b>	<b>-420</b>	<b>-11.0</b>	<b>-22.7</b>	<b>-5.9</b>	<b>-12.4</b>
<b>Tulare Lake</b>						
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
<b>TOTAL 1/</b>	<b>-100</b>	<b>-170</b>	<b>-4.4</b>	<b>-8.8</b>	<b>-2.3</b>	<b>-4.6</b>
<b>Bay Area</b>						
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
<b>TOTAL 1/</b>	<b>-70</b>	<b>-150</b>	<b>-5.0</b>	<b>-10.8</b>	<b>-2.8</b>	<b>-6.2</b>
<b>California Total</b>						
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
<b>TOTAL 1/</b>	<b>-1030</b>	<b>-2880</b>	<b>-112.2</b>	<b>-233.8</b>	<b>-41.4</b>	<b>-108.3</b>

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



**TABLE 27 REGIONAL ECONOMIC IMPACT: AVERAGE YEAR FOLLOWING DRY 5-YEAR BASE CONDITION 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
Region and Affected Sector	Direct	Total	Direct	Total	Direct	Total
<b>Sacramento River</b>						
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
<b>TOTAL/1</b>	<b>-630</b>	<b>-2130</b>	<b>-91.8</b>	<b>-191.6</b>	<b>-30.5</b>	<b>-85.2</b>
<b>San Joaquin River</b>						
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
<b>TOTAL/1</b>	<b>-230</b>	<b>-420</b>	<b>-11.0</b>	<b>-22.7</b>	<b>-5.9</b>	<b>-12.4</b>
<b>Tulare Lake</b>						
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
<b>TOTAL/1</b>	<b>-100</b>	<b>-170</b>	<b>-4.4</b>	<b>-8.8</b>	<b>-2.3</b>	<b>-8.8</b>

**TABLE 27 REGIONAL ECONOMIC IMPACT: AVERAGE YEAR FOLLOWING DRY 5-YEAR BASE CONDITION 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
Region and Affected Sector	Direct	Total	Direct	Total	Direct	Total
<b>Bay Area</b>						
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
<b>California Total</b>						
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 due to rounding.						



**SECTION 3**  
**MUNICIPAL AND INDUSTRIAL WATER USE ECONOMICS**

### **SECTION 3 MUNICIPAL AND INDUSTRIAL ECONOMICS**

The municipal and industrial economics analysis is based upon the Average-Average tiered pricing scenario. This analysis is based upon the impacts to CVP contractors. This is different than the municipal and industrial economic analysis that was included in the PEIS.

The PEIS municipal and industrial water cost analysis primarily evaluated the impacts on the need and cost to transfer water to non-CVP municipalities. Therefore, the analysis included water costs for many non-CVP water users. For example, the municipality in the San Joaquin River Basin was based upon the Cities of Stockton and Fresno water costs which are not based on CVP water, as described in the Municipal Water Costs Methodology and Modeling Technical Appendix to the PEIS.

The analysis included in the following table is based only on CVP contractors in order to define the cost of CVP water under the Tiered Water Pricing proposal.

**SECTION 3 MUNICIPAL AND INDUSTRIAL ECONOMICS**

**TABLE 28**

**SUMMARY OF M&I ECONOMICS ANALYSIS FOR AVERAGE YEAR CONDITIONS FOR REGIONAL ECONOMICS**

Result	Preferred Alternative Average	Change from the Preferred Alternative Average		
		Average-Average	Dry-Average	Wet-Average
<b>Average Condition</b>				
<b>Supplies, 1,000 acre-feet (1)</b>				
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
<b>Average Condition</b>				
<b>Economic Costs, Million \$ (2)</b>				
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
<p><b>NOTES:</b>                      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.</p>				

**APPENDIX D**

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## APPENDIX D

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**APPENDIX E**  
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## APPENDIX E

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The Draft and Final EA was circulated to agencies and individuals. The distribution list is provided in this appendix.

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