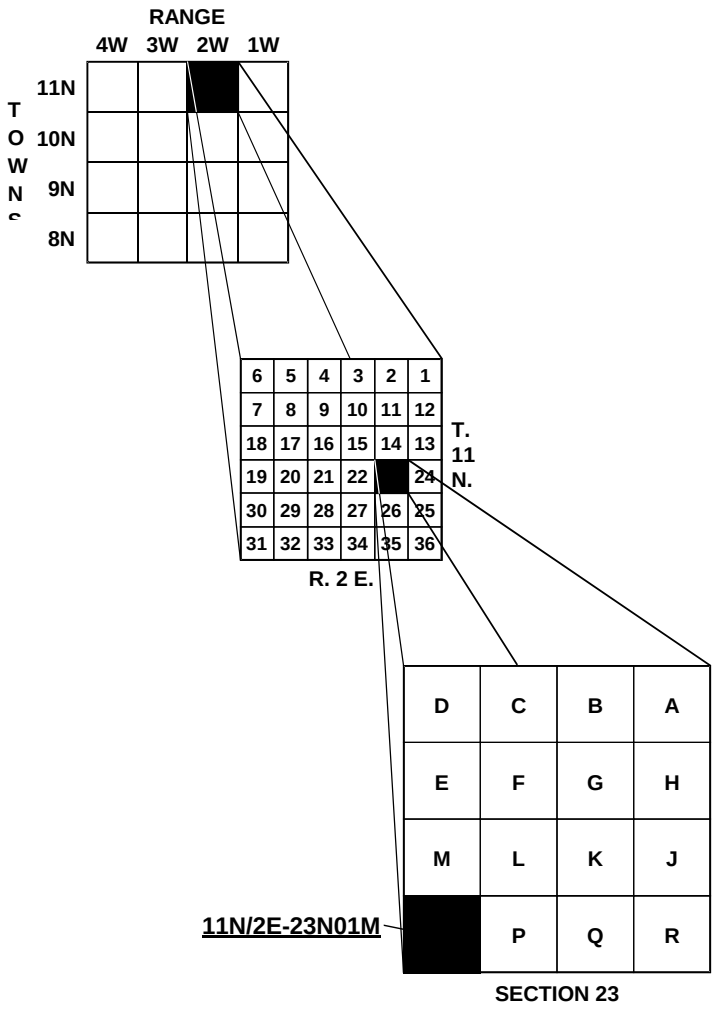
APPENDIX B
WELL NUMBERING SYSTEM

APPENDIX B
WELL NUMBERING SYSTEM

Wells are identified according to their location in the rectangular system used for the subdivision of public lands. The identification consists of the township numbers, north or south of a base line; the range number, east or west of a meridian; and the section number. A section is divided into sixteen 40-acre tracts lettered consecutively (excluding I and O), beginning with A in the northeast corner of the section and progressing to R in the southeast corner. Within the 40-acre tract, wells are sequentially numbered in the order they are inventoried. The final letter refers to the base line and meridian relative to which the townships and ranges are numbered. For the Central Valley, this is the Mount Diablo base line and meridian (M).



APPENDIX C
WELL LOGS AND ELECTRIC LOGS DATA SUMMARY TABLES

APPENDIX C
WELL LOGS AND ELECTRIC LOGS DATA SUMMARY TABLES

DESCRIPTION OF FIELDS:

ID:	State Well Number of boring
DEPTH GROUND:	Depth of boring measured from the ground surface, in feet.
GROUND ELEV:	Ground surface elevation of the boring above the datum, in feet.
NORTHING:	Northing coordinate, in feet.
EASTING:	Easting coordinate, in feet.
CORCORAN:	Indicates presence of Corcoran Clay
CORC TOP:	Depth from ground surface to top of Corcoran Clay, in feet.
CORC BOTTOM:	Depth from ground surface to bottom of Corcoran Clay, in feet.
BOPS BOTTOM:	Depth from ground surface to the base of permeable sediments, in feet.
PERF TOP:	Depth from ground surface to the top of well perforations, in feet.
PERF BOTTOM:	Depth from ground surface to the bottom of well perforations, in feet.
CORC ELEV:	Elevation of top of Corcoran Clay, in feet above mean sea level.

Note: Vertical datum for elevation measurements is mean sea level.

APPENDIX D
SUMMARY OF WILDCAT OIL WELL DATA SETS

APPENDIX D
SUMMARY OF WILDCAT OIL WELL DATA SETS

Borehole/Well I.D.* (State No.)	Borehole/Well/Location (Township/Range/ Section)	Well Status	Total Borehole/ Well Depth (feet BGS)	Type of Data Available (see notes)	Depth Interval (feet BGS)	Key to Well Location Map**
ARCO Oil & Gas Co. "Churchill" 1 42-5566	T20S - R24E - Section 35 107-00218	abd	5,566'	SP	400'-5,560'	No. 1
Tannerhill Oil Co. "Brazil" 27X 78-3450	T20S - R25E - Section 9 107-20104	abd	3,450'	DIL mud	350'-3,450' 350'-3,450'	No. 2
Freeport Oil Co. "Soults" 1 76-6375	T20S - R24E - Section 8 107-20074	abd	6,375'	DIL	90'-6,380'	No. 3
ARCO Oil & Gas Co. "North Tulare Comm." 1 42-5356	T19S - R24E - Section 33 107-00211	abd	5,356'	SP	410'-5,355'	No. 4
Tulare Oil Co. 1 22-3247	T20S - R24E - Section 1 107-00217	abd	3,247'	None	--	No. 5
Tannerhill Oil Co. "Cardosa" 16X 78-3866	T19S - R25E - Section 31 107-20117	abd	3,866'	DIL CAV	426'-3,862' 426'-3,862'	No. 6
Tannerhill Oil Co. "Warren" 17 78-3495	T19S - R25E - Section 29 107-20105	abd	3,495'	DIL CAV mud, SWS	377'-3,496' 377'-3,496' 377'-3,496'	No. 7
Derby Oil of Calif. "Derby-Union" 32-1X 83-1992	T20S - R25E - Section 1 107-20201	abd	1,992'	DIL	409'-1,990'	No. 8
J.F. Wilcox Opr. "Wilcox-Hinkel" 1 54-1297	T19S - R26E - Section 33 107-00213	abd	1,297'	None	--	No. 9
J.F. Wilcox Opr. "Orton" 1 55-1040	T19S - R26E - Section 34 107-00214	abd	1,040'	None	--	No. 10
Eureka Ref. Corp. "Eureka-Wright-Hart" 1 52-1963	T19S - R25E - Section 14 107-00212	abd	1,963'	None	--	No. 11
Jordan Oil & Gas Co. "Bennetts" 1-17 82-2750	T19S - R25E - Section 17 107-20184	abd	2,750'	DIL mud	395'-2,736' (DIL) 1,000'- 2,750' (mud)	No. 12
Terra Resources, Inc. "Gist Farms Inc." 71-28 83-4317	T19S - R24E - Section 28 107-20199	abd	4,317'	DIL mud	470'-4,310' 470'-4,310'	No. 13
Reynolds & Carver "Merritt Estate" 1 68-4958	T19S - R24E - Section 20 107-20008	abd	4,958'	DIL SWS	505'-4,573' 505'-4,573'	No. 14

Borehole/Well I.D.* (State No.)	Borehole/Well/Location (Township/Range/ Section)	Well Status	Total Borehole/ Well Depth (feet BGS)	Type of Data Available (see notes)	Depth Interval (feet BGS)	Key to Well Location Map**
M.H. Stone "Overland-Stone" 1 53-1125	T19S - R23E - Section 10 107-00210	abd	1,125'	SP	197'-1,125'	No. 15
H.S. Sankey "Rockhold" 52-6220	T19S - R23E - Section 6	--	6,220'	SP	500'-6,226'	No. 16
Sam B. Herndon, Opr. "Hagler" 1 60-5774	T19S - R23E - Section 2 107-00209	abd	5,774'	SP	400'-5,774'	No. 17
Independent Explor. Co. "Bennett-Smith" 50-6015	T18S - R23E - Section 31	abd	6,015'	SP	558'-6,017'	No. 18
W.J. Carter "Carter-Chedestar" 1 48-1677	T18S - R25E - Section 21 107-00208	abd	1,677'	SP	20'-1,677'	No. 19
King Dev. Co. "A.K." 2 52-1757	T18S - R25E - Section 16 107-00207	abd	1,757'	SP	87'-1,753'	No. 20
Miles Andrews "Carter-McCainster" 1 48-1765	T18S - R25E - Section 16 107-00206	abd	1,765'	None	--	No. 21
Jordan Oil & Gas Co. "Matteson" 1-12 82-2286	T18S - R24E - Section 12 107-20183	abd	2,286'	DIL mud	397'-2,282' 1,000'-2,285'	No. 22
Hershey Oil Corp. "Riggin, et al" 1 78-2686	T18S - R24E - Section 23 107-20128	abd	2,686'	DIL SWS	306'-2,680' 360'-2,680'	No. 23
SWEPI "Shell-Shannon-Gibraltar" 15-1 78-2981	T18S - R24E - Section 15 107-20098	abd	2,981'	DIL SWS dir. Survey	675'-2,982' 675'-2,982' 675'-2,982'	No. 24
Ted Sterling, Opr. "Doe" 1 59-3050	T18S - R24E - Section 9 107-00205	abd	3,050'	SP SWS	507'-3,050' 507'-3,050'	No. 25
GEH "Doe" 1 78-3362	T18S - R24E - Section 8 107-20143	abd	3,362'	DIL FDC DIP, SWS	381'-3,359' (DIL) & (SWS) 1,300'-3,361' (FDC) 1,500'-3,342' (DIP)	No. 26
Aear Energy LLC "McGee" 18-8 47-3650	T18S - R24E - Section 8 107-00204	abd	3,650'	None	--	No. 27
Ganong & Ellison, Opr. "Hayes" 31 80-3600	T18S - R24E - Section 17 107-20161	abd	3,600'	DIL CDLC SWS, Core	373'-3,587' 373'-3,587' 373'-3,587'	NO. 28

Borehole/Well I.D.* (State No.)	Borehole/Well/Location (Township/Range/ Section)	Well Status	Total Borehole/ Well Depth (feet BGS)	Type of Data Available (see notes)	Depth Interval (feet BGS)	Key to Well Location Map**
Aera Energy LLC "Huntley" 1 46-3811	T18S - R24E - Section 7 107-00203	abd	3,811'	None	--	No. 29
United Explor. Co. of Calif. "United" 1 46-3836	T18S - R23E - Section 12 107-00201	abd	3,836'	SP	402'-3,837'	No. 30
Ulrich-Lowell Oil Co. "Logsdon" 1 54-4083	T18S - R23E - Section 11 107-00200	abd	4,083'	SP	400'-4,083'	No. 31
Wm. C. McDuffie "Bennett" 1 46-5370	T18S - R23E - Section 15 107-00202	abd	5,370'	SP	370'-5,370'	No. 32
Turner & Goldsberry -- 34-1400	T18S - R23E - Section 8	Converted to water well	1,400'	--	--	No. 33
Canus Pet, Inc. "Hansen Farms" 78-13316	T19S - R21E - Section 19	--	13,316'	DIL mud sonic	1,330' - 12,333' below 3,500' 1,330' - 12,333'	No. 34
Nuevo Energy Co. "Salyer" 79-11789	T20S - R22E - Section 16	--	11,789'	SP mud	1,525' - 11,789' below 2,000'	No. 35
Harp & Brown "Corcoran Irrigation" 46-3104	T20S - R22E - Section 21	--	3,104'	SP core	435' - 3,102' below 1,487'	No. 36
G. Hamilton Beasley "Trane Cass" 52-8265	T20S - R22E - Section 24	--	8,265'	SP	518' - 8,263'	No. 37
Russell, Willis, & Vaughan, Ltd. "Corcoran" 49-8235	T20S - R22E - Section 24	--	8,235'	SP	493' - 5,210'	No. 38
Galen B. Finch & Assoc. "Williams Trust" 46-8183	T20S - R22E -Section 24	--	8,183'	SP	342' - 8,183'	No. 39
Chevron "Corcoran Irrig. Dist." 51-8200	T20S - R22E - Section 25	--	8,200'	SP	505' - 8,193'	No. 40
Willett Flying Service, Inc. "Hahesy" 67-9300	T19S - R22E - Section 36	--	9,300'	SP	495' - 9,281'	No. 41
Rusty Walters Dr. Co. "Bettencourt" 55-6665	T19S - R22E - Section 4	--	6,665'	SP	513' - 6,663'	No. 42

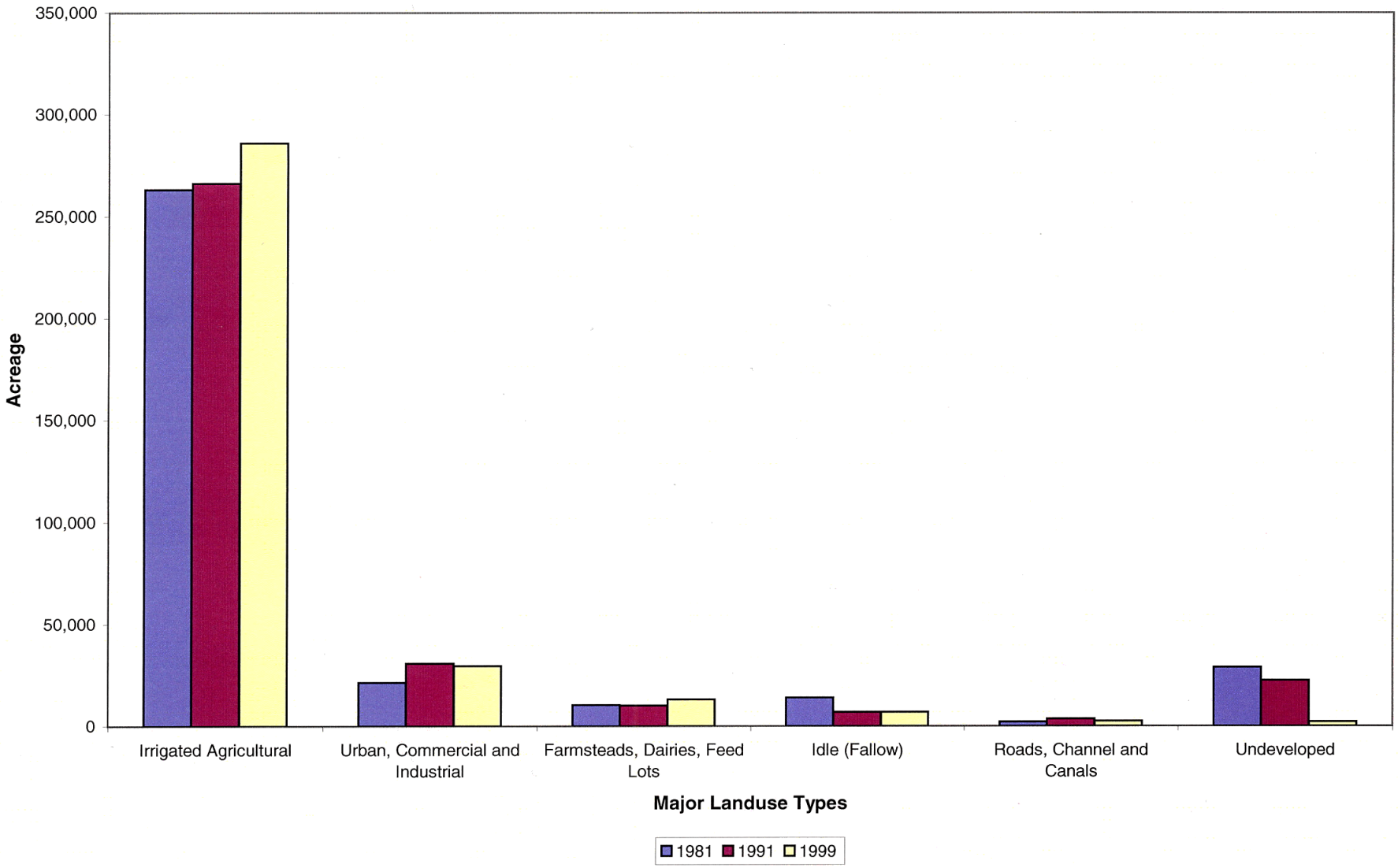
Borehole/Well I.D.* (State No.)	Borehole/Well/Location (Township/Range/ Section)	Well Status	Total Borehole/ Well Depth (feet BGS)	Type of Data Available (see notes)	Depth Interval (feet BGS)	Key to Well Location Map**
Chevron "Mills" 52-9211	T19S - R22E - Section 8	--	9,211'	SP	509' - 9,200'	No. 43
Northern Michigan Expl. Co. "Champlin" 84-7892	T19S - R22E - Section 10	--	7,892'	SP mud lithology	917' - 7,892' below 900' below 1,055'	No. 44
TEPI "Seaboard-Continentar" 43-6633	T19S - R22E - Section 2	--	6,633'	SP dr log	515' - 6,633' 0'-6,565'	No. 45
Richard S. Rheem, Opr. "Sarah Hampshire" 64-6689	T19S - R22E - Section 11	--	6,689'	SP	474' - 6,689'	No. 46
Harry C. Long, Opr. "Drummond-Union" 56-5400	T19S - R22E - Section 1	--	5,400'	SP	470'-5,398'	No. 47

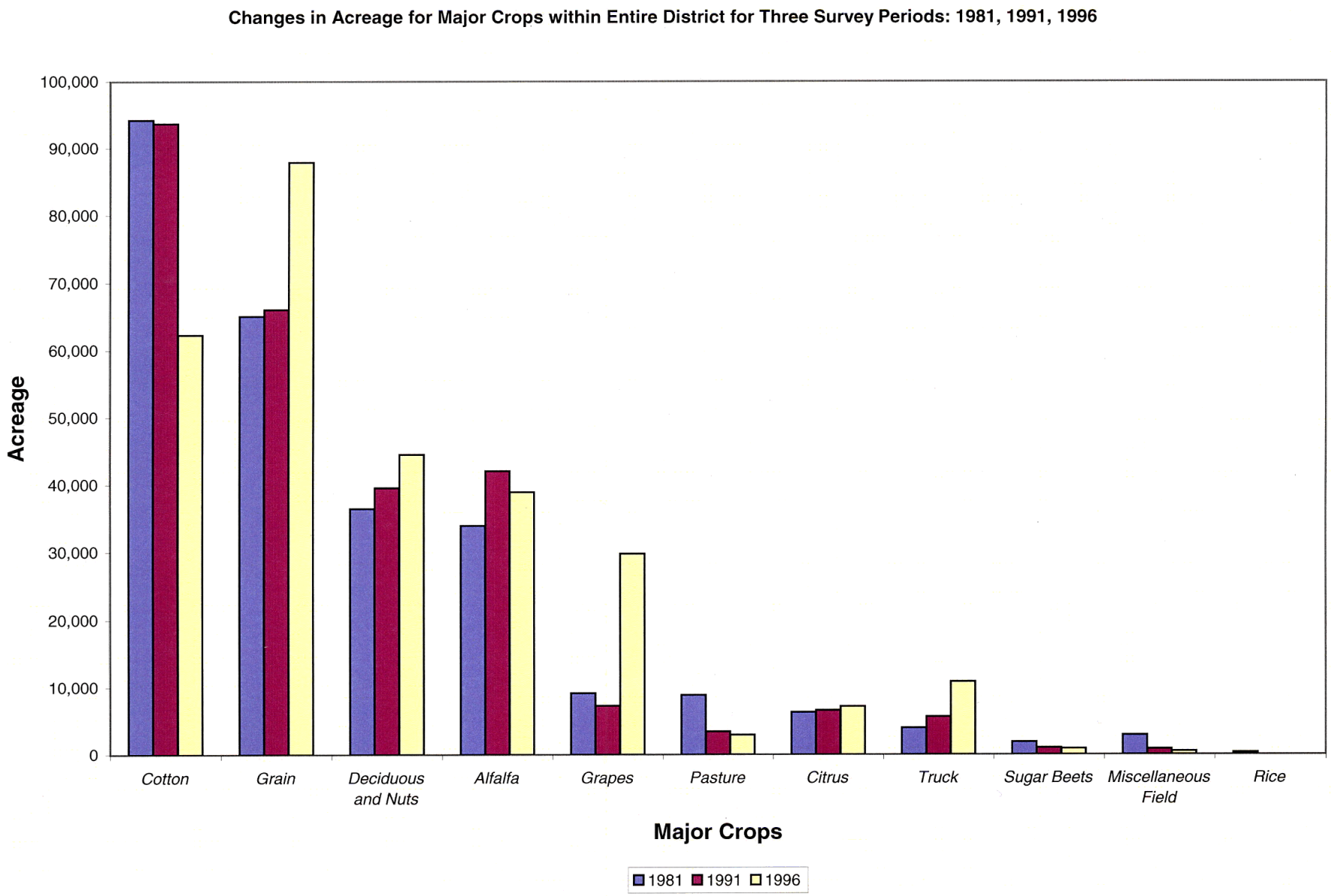
Notes:

* - Well Owner / "Lessee and/or Well Name" / 80 (year drilled) - 3486 (total depth)
** - See Plate X - Wildcat Well Location Map
T.R.S. - Township, Range, and Section
feet bgs - Feet Below Ground Surface
GL - Gamma Ray Log
EL - Electric Log
CL - Caliper Log
WDR - Well Driller's Report
WQD - Water Quality Data
PD - Production Data
CR - Casing Record
abd – Abandoned
-- - Not Available or Not Applicable
SP - Spontaneous Potential Log (electric log)
FDC/CDLC - Formation Density Logs
SWS/Core - Sidewall Samples/Core Record
mud - Mud Log
DIP - Dipmeter Log
DR - Driller's Log
DIL - Dual Induction Log
CAV - Compensated Acoustic Velocity Log
Lithology - Sand Description
Most wells in District 4 (Bakersfield) (identified by included API numbers) contain a Well Driller's Report and all contain a casing record.
Production data is available for all wells on the Division's web site.

APPENDIX E
LAND USE DATA

Changes in Acreage for Major Landuse Types within Entire District for Three Survey Periods: 1981, 1991, 1996

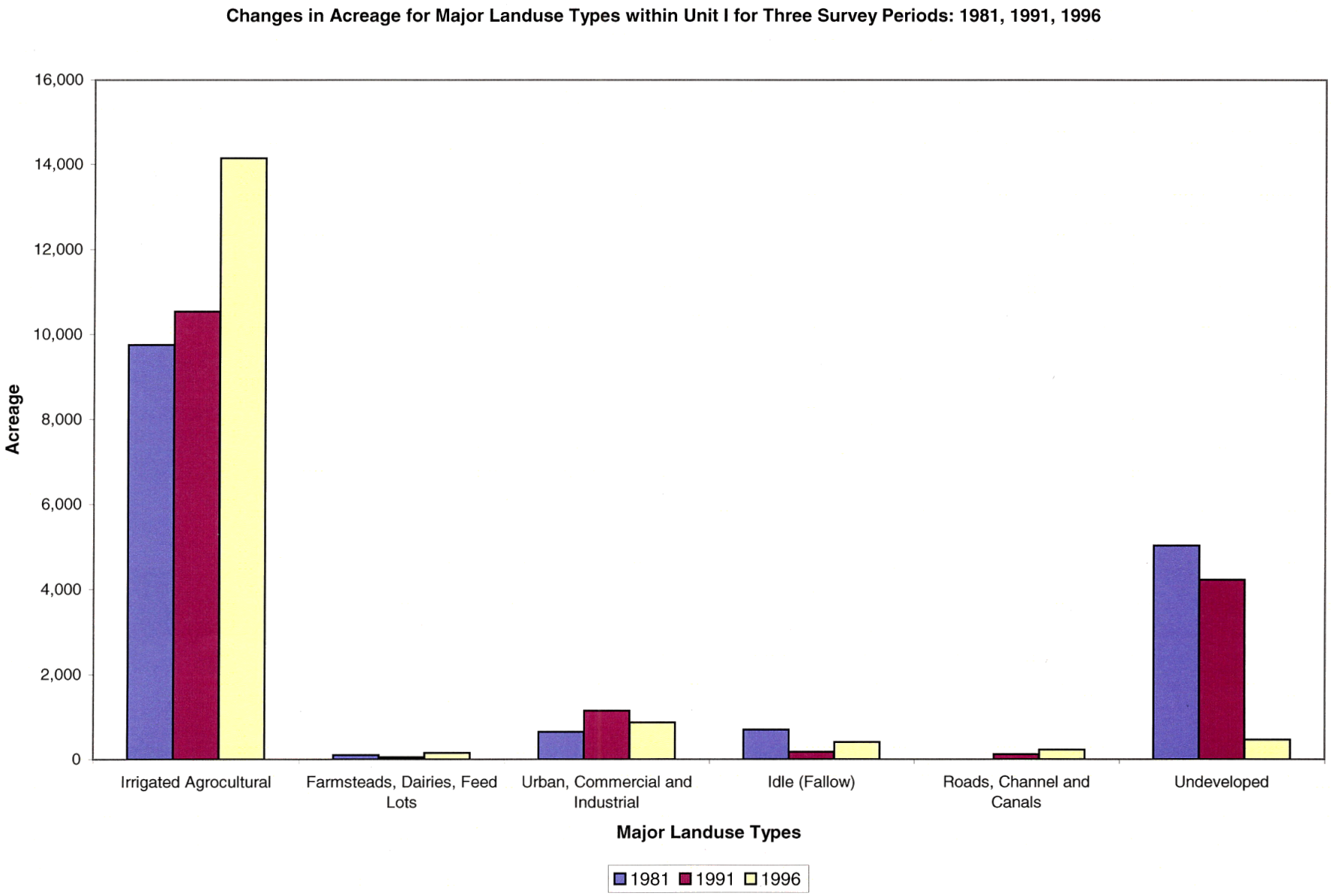


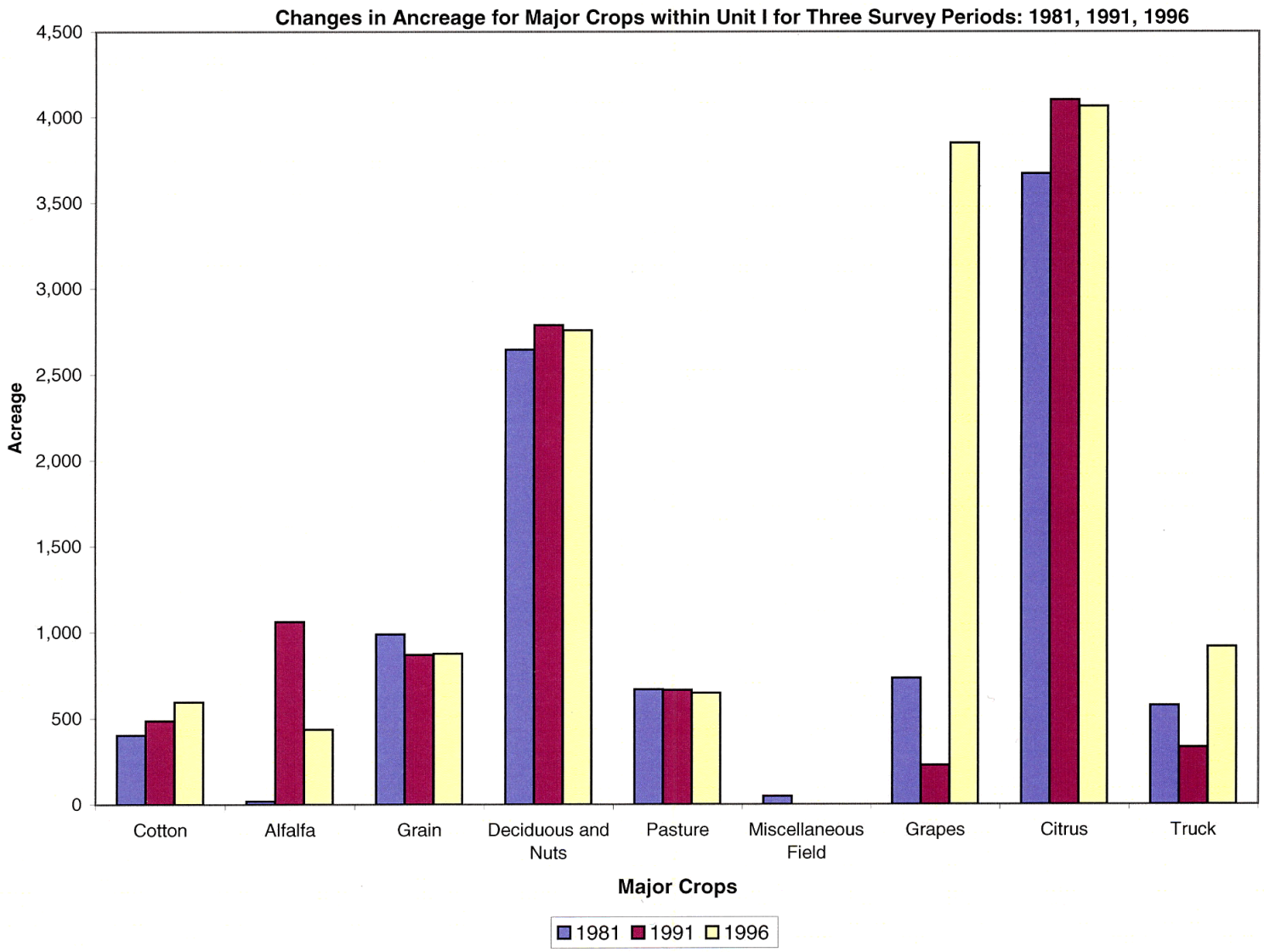

Changes in Acreage for Major Crops within Entire District for Three Survey Periods: 1981, 1991, 1996
Acreage
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
Cotton
Grain
Deciduous and Nuts
Alfalfa
Grapes
Pasture
Citrus
Truck
Sugar Beets
Miscellaneous Field
Rice
Major Crops
1981
1991
1996

Kaweah Delta Water Conservation District
1981 - 1999
Summary of Land Use for Entire District

	1981		1982		1983		1984		1985		1986		1987		1988		1989	
Category of Land Use	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Irrigated																		
Cotton	94,229	28%	94,178	28%	94,126	28%	94,075	28%	94,023	28%	93,972	28%	93,921	28%	93,869	28%	93,818	28%
Alfalfa	33,977	10%	34,786	10%	35,595	10%	36,404	11%	37,213	11%	38,022	11%	38,830	11%	39,639	12%	40,448	12%
Grain	65,062	19%	65,162	19%	65,262	19%	65,361	19%	65,461	19%	65,561	19%	65,661	19%	65,761	19%	65,860	19%
Deciduous and Nuts	36,502	11%	36,809	11%	37,115	11%	37,422	11%	37,729	11%	38,036	11%	38,342	11%	38,649	11%	38,956	11%
Pasture	8,873	3%	8,332	2%	7,791	2%	7,250	2%	6,709	2%	6,169	2%	5,628	2%	5,087	1%	4,546	1%
Miscellaneous Field	2,911	1%	2,705	1%	2,498	1%	2,292	1%	2,085	1%	1,879	1%	1,672	0%	1,466	0%	1,259	0%
Sugar Beets	1,869	1%	1,784	1%	1,698	0%	1,613	0%	1,527	0%	1,442	0%	1,356	0%	1,271	0%	1,185	0%
Grapes	9,187	3%	8,999	3%	8,810	3%	8,622	3%	8,434	2%	8,246	2%	8,057	2%	7,869	2%	7,681	2%
Citrus	6,337	2%	6,365	2%	6,393	2%	6,420	2%	6,448	2%	6,476	2%	6,504	2%	6,532	2%	6,559	2%
Rice	313	0%	282	0%	250	0%	219	0%	188	0%	157	0%	125	0%	94	0%	63	0%
Truck	3,995	1%	4,162	1%	4,328	1%	4,495	1%	4,661	1%	4,828	1%	4,994	1%	5,161	2%	5,327	2%
	263,255	77%	263,561	78%	263,867	78%	264,172	78%	264,478	78%	264,784	78%	265,090	78%	265,396	78%	265,701	78%
Non-Irrigated																		
Urban, Commercial and Industrial	21,352	6%	22,290	7%	23,229	7%	24,167	7%	25,105	7%	26,044	8%	26,982	8%	27,920	8%	28,858	8%
Farmsteads, Dairies, Feed Lots	10,397	3%	10,370	3%	10,343	3%	10,317	3%	10,290	3%	10,263	3%	10,236	3%	10,209	3%	10,183	3%
Idle (Fallow)	13,923	4%	13,224	4%	12,525	4%	11,827	3%	11,128	3%	10,429	3%	9,730	3%	9,031	3%	8,333	2%
Roads, Channel and Canals	2,045	1%	2,194	1%	2,343	1%	2,492	1%	2,641	1%	2,790	1%	2,939	1%	3,088	1%	3,237	1%
Undeveloped	28,833	8%	28,190	8%	27,547	8%	26,904	8%	26,261	8%	25,619	8%	24,976	7%	24,333	7%	23,690	7%
Unknown	246	0%	221	0%	197	0%	172	0%	148	0%	123	0%	98	0%	74	0%	49	0%
Subtotal, Non-Irrigated	76,796	23%	76,490	22%	76,184	22%	75,879	22%	75,573	22%	75,267	22%	74,961	22%	74,655	22%	74,350	22%
Total	**340,051**		**340,051**		**340,051**		**340,051**		**340,051**		**340,051**		**340,051**		**340,051**		**340,051**	

1990		1991		1992		1993		1994		1995		1996		1997		1998		1999	
Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
93,766	28%	93,715	28%	89,788	26%	85,860	25%	81,933	24%	78,005	23%	74,078	22%	70,150	21%	66,223	19%	62,295	18%
41,257	12%	42,066	12%	41,673	12%	41,280	12%	40,887	12%	40,495	12%	40,102	12%	39,709	12%	39,316	12%	38,923	11%
65,960	19%	66,060	19%	68,793	20%	71,527	21%	74,260	22%	76,993	23%	79,726	23%	82,460	24%	85,193	25%	87,926	26%
39,262	12%	39,569	12%	40,190	12%	40,812	12%	41,433	12%	42,055	12%	42,676	13%	43,297	13%	43,919	13%	44,540	13%
4,005	1%	3,464	1%	3,400	1%	3,337	1%	3,273	1%	3,209	1%	3,145	1%	3,082	1%	3,018	1%	2,954	1%
1,053	0%	846	0%	804	0%	762	0%	720	0%	678	0%	636	0%	594	0%	552	0%	510	0%
1,100	0%	1,014	0%	1,000	0%	986	0%	971	0%	957	0%	943	0%	929	0%	914	0%	900	0%
7,492	2%	7,304	2%	10,116	3%	12,927	4%	15,739	5%	18,550	5%	21,362	6%	24,173	7%	26,985	8%	29,796	9%
6,587	2%	6,615	2%	6,686	2%	6,757	2%	6,828	2%	6,900	2%	6,971	2%	7,042	2%	7,113	2%	7,184	2%
31	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
5,494	2%	5,660	2%	6,312	2%	6,963	2%	7,615	2%	8,266	2%	8,918	3%	9,569	3%	10,221	3%	10,872	3%
266,007	78%	266,313	78%	268,761	79%	271,210	80%	273,658	80%	276,107	81%	278,555	82%	281,003	83%	283,452	83%	285,900	84%
29,797	9%	30,735	9%	30,582	9%	30,428	9%	30,275	9%	30,122	9%	29,968	9%	29,815	9%	29,661	9%	29,508	9%
10,156	3%	10,129	3%	10,505	3%	10,881	3%	11,257	3%	11,633	3%	12,008	4%	12,384	4%	12,760	4%	13,136	4%
7,634	2%	6,935	2%	6,938	2%	6,941	2%	6,944	2%	6,947	2%	6,949	2%	6,952	2%	6,955	2%	6,958	2%
3,386	1%	3,535	1%	3,397	1%	3,260	1%	3,122	1%	2,984	1%	2,846	1%	2,709	1%	2,571	1%	2,433	1%
23,047	7%	22,404	7%	19,868	6%	17,332	5%	14,796	4%	12,260	4%	9,723	3%	7,187	2%	4,651	1%	2,115	1%
25	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
74,044	22%	73,738	22%	71,290	21%	68,841	20%	66,393	20%	63,944	19%	61,496	18%	59,047	17%	56,599	17%	54,150	16%
340,051		**340,051**		**340,051**		**340,051**		**340,051**		**340,051**		**340,050**		**340,050**		**340,050**		**340,050**	

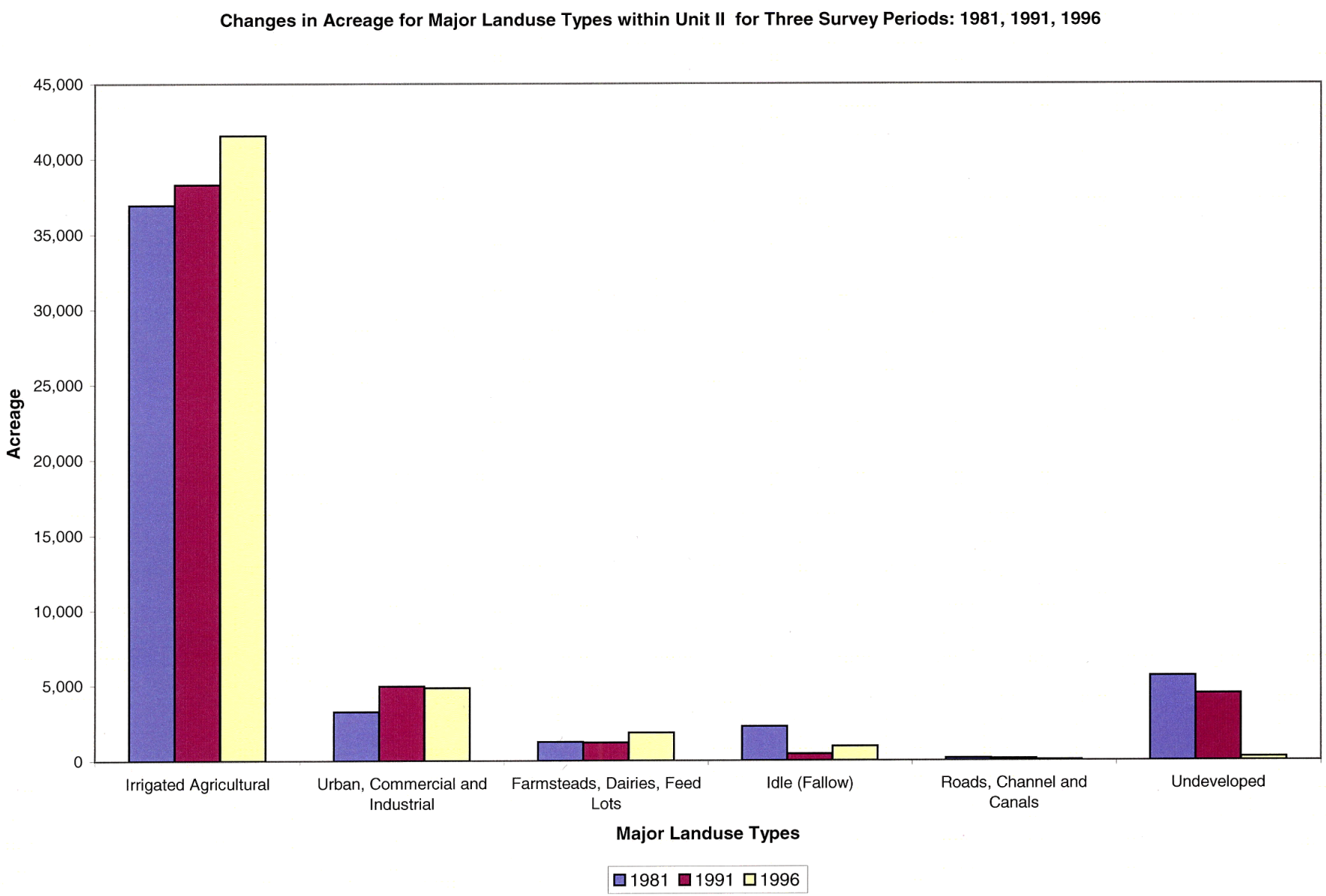

Changes in Acreage for Major Landuse Types within Unit I for Three Survey Periods: 1981, 1991, 1996
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Acreage
Irrigated Agrocultural
Farmsteads, Dairies, Feed Lots
Urban, Commercial and Industrial
Idle (Fallow)
Roads, Channel and Canals
Undeveloped
Major Landuse Types
1981
1991
1996

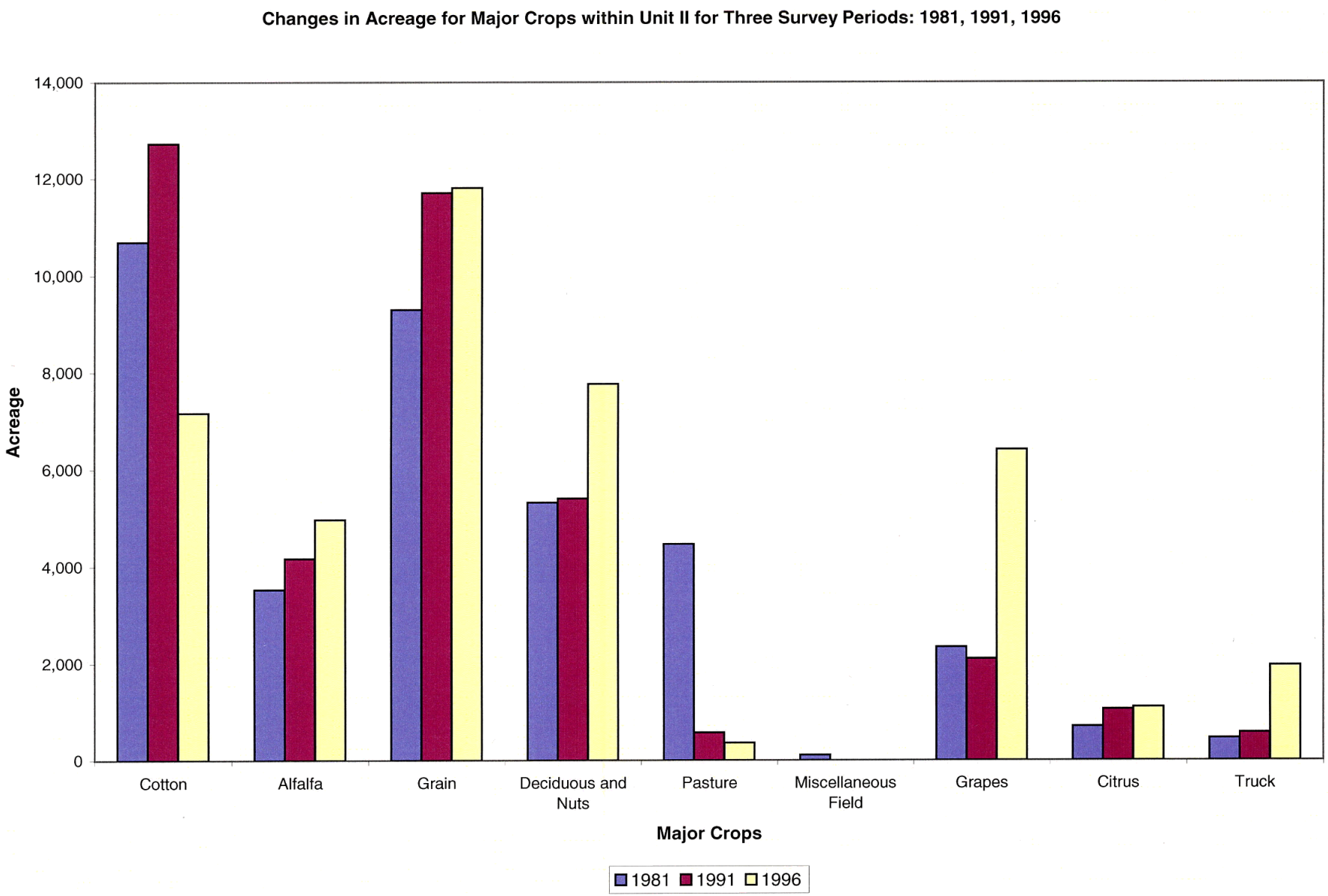

Changes in Ancreage for Major Crops within Unit I for Three Survey Periods: 1981, 1991, 1996
Acreage
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Cotton
Alfalfa
Grain
Deciduous and Nuts
Pasture
Miscellaneous Field
Grapes
Citrus
Truck
Major Crops
1981
1991
1996

Kaweah Delta Water Conservation District
1981 - 1999
Summary of Land Use for Hydrologic Unit I

	1981		1982		1983		1984		1985		1986		1987		1988		1989	
Category of Land Use	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Irrigated																		
Cotton	404	2%	413	3%	421	3%	429	3%	438	3%	446	3%	454	3%	463	3%	471	3%
Alfalfa	18	0%	123	1%	227	1%	332	2%	436	3%	541	3%	645	4%	750	5%	854	5%
Grain	989	6%	978	6%	966	6%	954	6%	942	6%	930	6%	918	6%	907	6%	895	6%
Deciduous and Nuts	2,646	16%	2,660	16%	2,674	16%	2,689	17%	2,703	17%	2,717	17%	2,732	17%	2,746	17%	2,760	17%
Pasture	671	4%	670	4%	670	4%	669	4%	669	4%	669	4%	668	4%	668	4%	668	4%
Miscellaneous Field	47	0%	42	0%	38	0%	33	0%	28	0%	24	0%	19	0%	14	0%	9	0%
Sugar Beets	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Grapes	735	5%	685	4%	634	4%	583	4%	532	3%	482	3%	431	3%	380	2%	329	2%
Citrus	3,670	23%	3,713	23%	3,756	23%	3,799	23%	3,843	24%	3,886	24%	3,929	24%	3,972	24%	4,016	25%
Truck	576	4%	552	3%	527	3%	503	3%	478	3%	454	3%	430	3%	405	2%	381	2%
	9,756	60%	9,835	60%	9,913	61%	9,991	61%	10,070	62%	10,148	62%	10,227	63%	10,305	63%	10,383	64%
Non-Irrigated																		
Farmsteads, Dairies, Feed Lots	101	1%	95	1%	90	1%	85	1%	80	0%	74	0%	69	0%	64	0%	59	0%
Urban, Commercial and Industrial	651	4%	701	4%	750	5%	799	5%	849	5%	898	6%	948	6%	997	6%	1,046	6%
Idle (Fallow)	699	4%	647	4%	594	4%	542	3%	490	3%	438	3%	386	2%	334	2%	281	2%
Roads, Channel and Canals	0	0%	12	0%	24	0%	35	0%	47	0%	59	0%	71	0%	83	1%	94	1%
Undeveloped	5,032	31%	4,952	30%	4,872	30%	4,792	29%	4,712	29%	4,632	28%	4,552	28%	4,472	28%	4,392	27%
Unknown	20	0%	18	0%	16	0%	14	0%	12	0%	10	0%	8	0%	6	0%	4	0%
Subtotal, Non-Irrigated	6,503	40%	6,425	40%	6,347	39%	6,268	39%	6,190	38%	6,112	38%	6,033	37%	5,955	37%	5,877	36%
Total	**16,260**		**16,260**		**16,260**		**16,260**		**16,260**		**16,260**		**16,260**		**16,260**		**16,260**	

1990		1991		1992		1993		1994		1995		1996		1997		1998		1999	
Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
480	3%	488	3%	502	3%	515	3%	529	3%	543	3%	556	3%	570	4%	583	4%	597	4%
959	6%	1,063	7%	985	6%	907	6%	828	5%	750	5%	672	4%	594	4%	515	3%	437	3%
883	5%	871	5%	872	5%	873	5%	873	5%	874	5%	875	5%	876	5%	876	5%	877	5%
2,775	17%	2,789	17%	2,785	17%	2,782	17%	2,778	17%	2,774	17%	2,770	17%	2,767	17%	2,763	17%	2,759	17%
667	4%	667	4%	665	4%	663	4%	660	4%	658	4%	656	4%	654	4%	651	4%	649	4%
5	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
279	2%	228	1%	681	4%	1,134	7%	1,586	10%	2,039	13%	2,492	15%	2,945	18%	3,397	21%	3,850	24%
4,059	25%	4,102	25%	4,097	25%	4,093	25%	4,088	25%	4,084	25%	4,079	25%	4,074	25%	4,070	25%	4,065	25%
356	2%	332	2%	405	2%	478	3%	551	3%	624	4%	697	4%	770	5%	843	5%	916	6%
10,462	64%	10,540	65%	10,991	68%	11,443	70%	11,894	73%	12,345	76%	12,796	79%	13,248	81%	13,699	84%	14,150	87%
53	0%	48	0%	61	0%	74	0%	86	1%	99	1%	112	1%	125	1%	137	1%	150	1%
1,096	7%	1,145	7%	1,110	7%	1,076	7%	1,041	6%	1,006	6%	971	6%	937	6%	902	6%	867	5%
229	1%	177	1%	206	1%	235	1%	263	2%	292	2%	321	2%	350	2%	378	2%	407	3%
106	1%	118	1%	132	1%	145	1%	159	1%	172	1%	186	1%	199	1%	213	1%	226	1%
4,312	27%	4,232	26%	3,761	23%	3,289	20%	2,818	17%	2,346	14%	1,875	12%	1,403	9%	932	6%	460	3%
2	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
5,798	36%	5,720	35%	5,269	32%	4,818	30%	4,366	27%	3,915	24%	3,464	21%	3,013	19%	2,561	16%	2,110	13%
16,260		**16,260**		**16,260**		**16,260**		**16,260**		**16,260**		**16,260**		**16,260**		**16,260**		**16,260**	


Changes in Acreage for Major Landuse Types within Unit II for Three Survey Periods: 1981, 1991, 1996
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
Acreage
Irrigated Agricultural
Urban, Commercial and Industrial
Farmsteads, Dairies, Feed Lots
Idle (Fallow)
Roads, Channel and Canals
Undeveloped
Major Landuse Types
1981
1991
1996

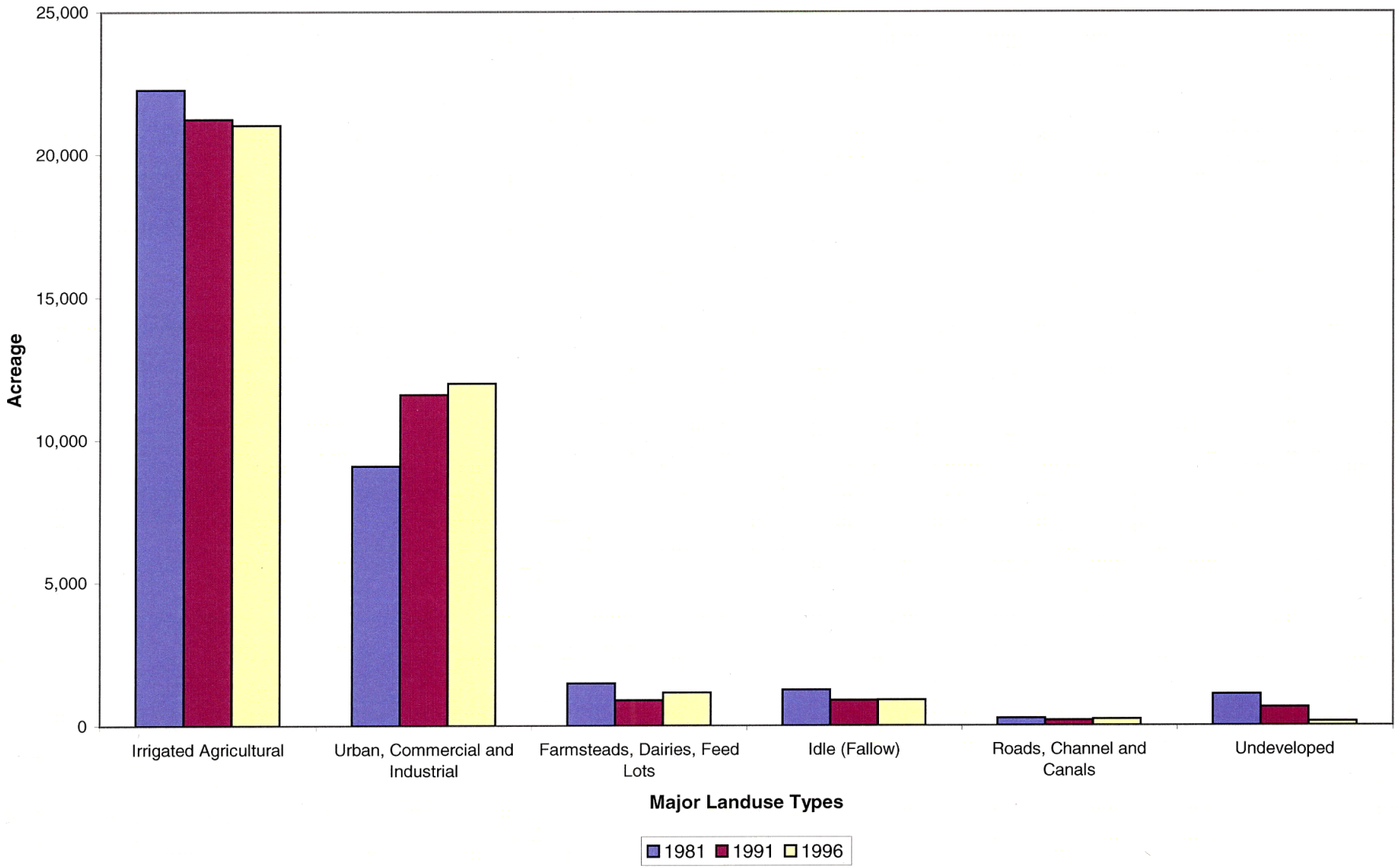

Changes in Acreage for Major Crops within Unit II for Three Survey Periods: 1981, 1991, 1996
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Acreage
Cotton
Alfalfa
Grain
Deciduous and Nuts
Pasture
Miscellaneous Field
Grapes
Citrus
Truck
Major Crops
1981
1991
1996

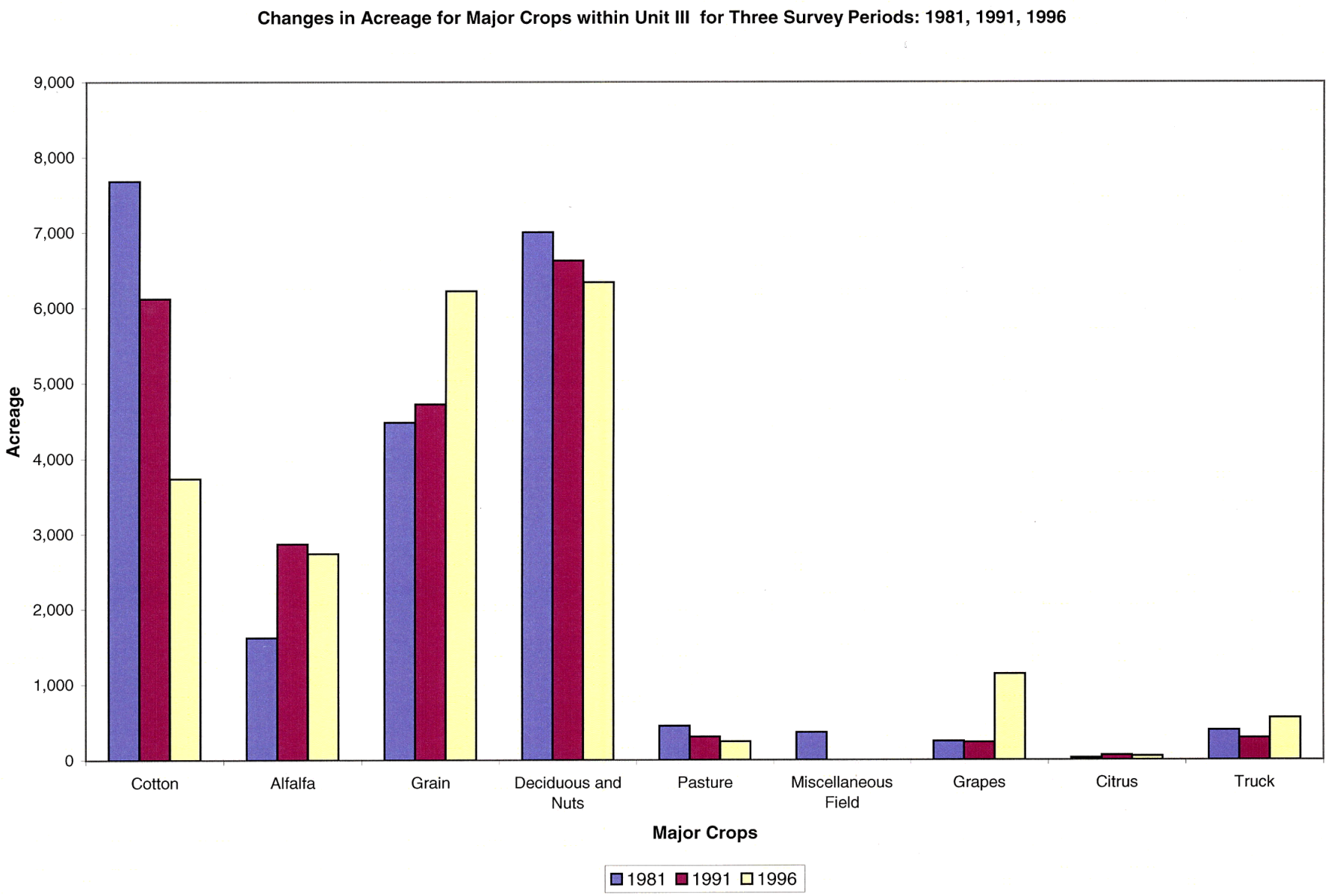
Kaweah Delta Water Conservation District
1981 - 1999
Summary of Land Use for Hydrologic Unit II

	1981		1982		1983		1984		1985		1986		1987		1988		1989	
Category of Land Use	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Irrigated																		
Cotton	10,697	22%	10,900	22%	11,103	22%	11,305	23%	11,508	23%	11,711	24%	11,914	24%	12,117	24%	12,319	25%
Alfalfa	3,536	7%	3,600	7%	3,663	7%	3,727	8%	3,790	8%	3,854	8%	3,918	8%	3,981	8%	4,045	8%
Grain	9,304	19%	9,544	19%	9,785	20%	10,026	20%	10,267	21%	10,507	21%	10,748	22%	10,989	22%	11,230	23%
Deciduous and Nuts	5,324	11%	5,332	11%	5,340	11%	5,348	11%	5,356	11%	5,364	11%	5,373	11%	5,381	11%	5,389	11%
Pasture	4,470	9%	4,080	8%	3,691	7%	3,301	7%	2,911	6%	2,522	5%	2,132	4%	1,742	4%	1,352	3%
Miscellaneous Field	108	0%	97	0%	87	0%	76	0%	65	0%	54	0%	43	0%	32	0%	22	0%
Sugar Beets	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Grapes	2,345	5%	2,321	5%	2,297	5%	2,273	5%	2,249	5%	2,225	4%	2,201	4%	2,177	4%	2,153	4%
Citrus	702	1%	737	1%	773	2%	808	2%	843	2%	879	2%	914	2%	949	2%	984	2%
Truck	460	1%	472	1%	483	1%	495	1%	506	1%	518	1%	529	1%	541	1%	552	1%
	36,946	75%	37,084	75%	37,221	75%	37,359	75%	37,496	76%	37,634	76%	37,771	76%	37,909	77%	38,046	77%
Non-Irrigated																		
Urban, Commercial and Industrial	3,249	7%	3,419	7%	3,589	7%	3,759	8%	3,929	8%	4,099	8%	4,269	9%	4,439	9%	4,609	9%
Farmsteads, Dairies, Feed Lots	1,256	2%	1,251	3%	1,247	3%	1,242	3%	1,237	2%	1,233	2%	1,228	2%	1,223	2%	1,218	2%
Idle (Fallow)	2,263	5%	2,082	4%	1,900	4%	1,719	3%	1,538	3%	1,357	3%	1,175	2%	994	2%	813	2%
Roads, Channel and Canals	152	0%	150	0%	148	0%	145	0%	143	0%	141	0%	139	0%	137	0%	135	0%
Undeveloped	5,626	11%	5,508	11%	5,390	11%	5,271	11%	5,153	10%	5,035	10%	4,916	10%	4,798	10%	4,680	9%
Unknown	11	0%	10	0%	9	0%	8	0%	6	0%	5	0%	4	0%	3	0%	2	0%
Subtotal, Non-Irrigated	12,557	25%	12,419	25%	12,282	25%	12,144	25%	12,007	24%	11,869	24%	11,732	24%	11,594	23%	11,457	23%
Total	**49,503**		**49,503**		**49,503**		**49,503**		**49,503**		**49,503**		**49,503**		**49,503**		**49,503**	

1990		1991		1992		1993		1994		1995		1996		1997		1998		1999	
Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
12,522	25%	12,725	26%	12,030	24%	11,335	23%	10,639	21%	9,944	20%	9,249	19%	8,554	17%	7,858	16%	7,163	14%
4,108	8%	4,172	8%	4,272	9%	4,372	9%	4,472	9%	4,573	9%	4,673	9%	4,773	10%	4,873	10%	4,973	10%
11,470	23%	11,711	24%	11,724	24%	11,737	24%	11,750	24%	11,763	24%	11,775	24%	11,788	24%	11,801	24%	11,814	24%
5,397	11%	5,405	11%	5,701	12%	5,996	12%	6,292	13%	6,588	13%	6,883	14%	7,179	15%	7,474	15%	7,770	16%
963	2%	573	1%	546	1%	520	1%	493	1%	466	1%	439	1%	413	1%	386	1%	359	1%
11	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
2,129	4%	2,105	4%	2,644	5%	3,183	6%	3,721	8%	4,260	9%	4,799	10%	5,338	11%	5,876	12%	6,415	13%
1,020	2%	1,055	2%	1,061	2%	1,067	2%	1,073	2%	1,079	2%	1,084	2%	1,090	2%	1,096	2%	1,102	2%
564	1%	575	1%	749	2%	923	2%	1,097	2%	1,271	3%	1,444	3%	1,618	3%	1,792	4%	1,966	4%
38,184	77%	38,321	77%	38,726	78%	39,131	79%	39,536	80%	39,942	81%	40,347	82%	40,752	82%	41,157	83%	41,562	84%
4,779	10%	4,949	10%	4,936	10%	4,923	10%	4,910	10%	4,897	10%	4,884	10%	4,871	10%	4,858	10%	4,845	10%
1,214	2%	1,209	2%	1,289	3%	1,370	3%	1,450	3%	1,531	3%	1,611	3%	1,691	3%	1,772	4%	1,852	4%
631	1%	450	1%	512	1%	575	1%	637	1%	700	1%	762	2%	824	2%	887	2%	949	2%
133	0%	131	0%	121	0%	111	0%	101	0%	91	0%	81	0%	71	0%	62	0%	52	0%
4,561	9%	4,443	9%	3,918	8%	3,393	7%	2,868	6%	2,344	5%	1,819	4%	1,294	3%	769	2%	244	0%
1	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
11,319	23%	11,182	23%	10,777	22%	10,372	21%	9,967	20%	9,562	19%	9,157	18%	8,752	18%	8,347	17%	7,942	16%
49,503		**49,503**		**49,503**		**49,503**		**49,503**		**49,503**		**49,503**		**49,503**		**49,504**		**49,504**	

Changes in Acreage for Major Landuse Types within Unit III for Three Survey Periods: 1981, 1991, 1996

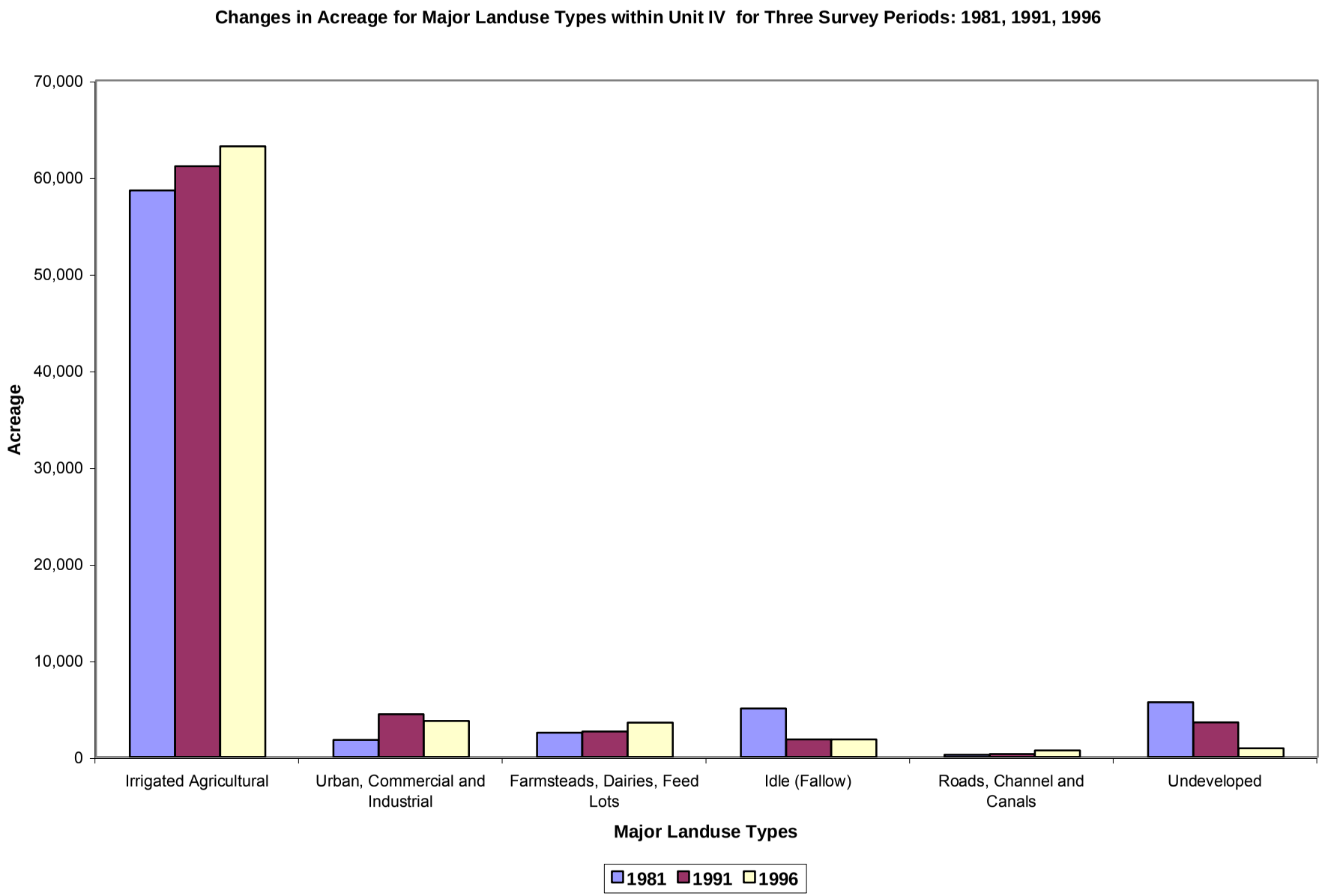


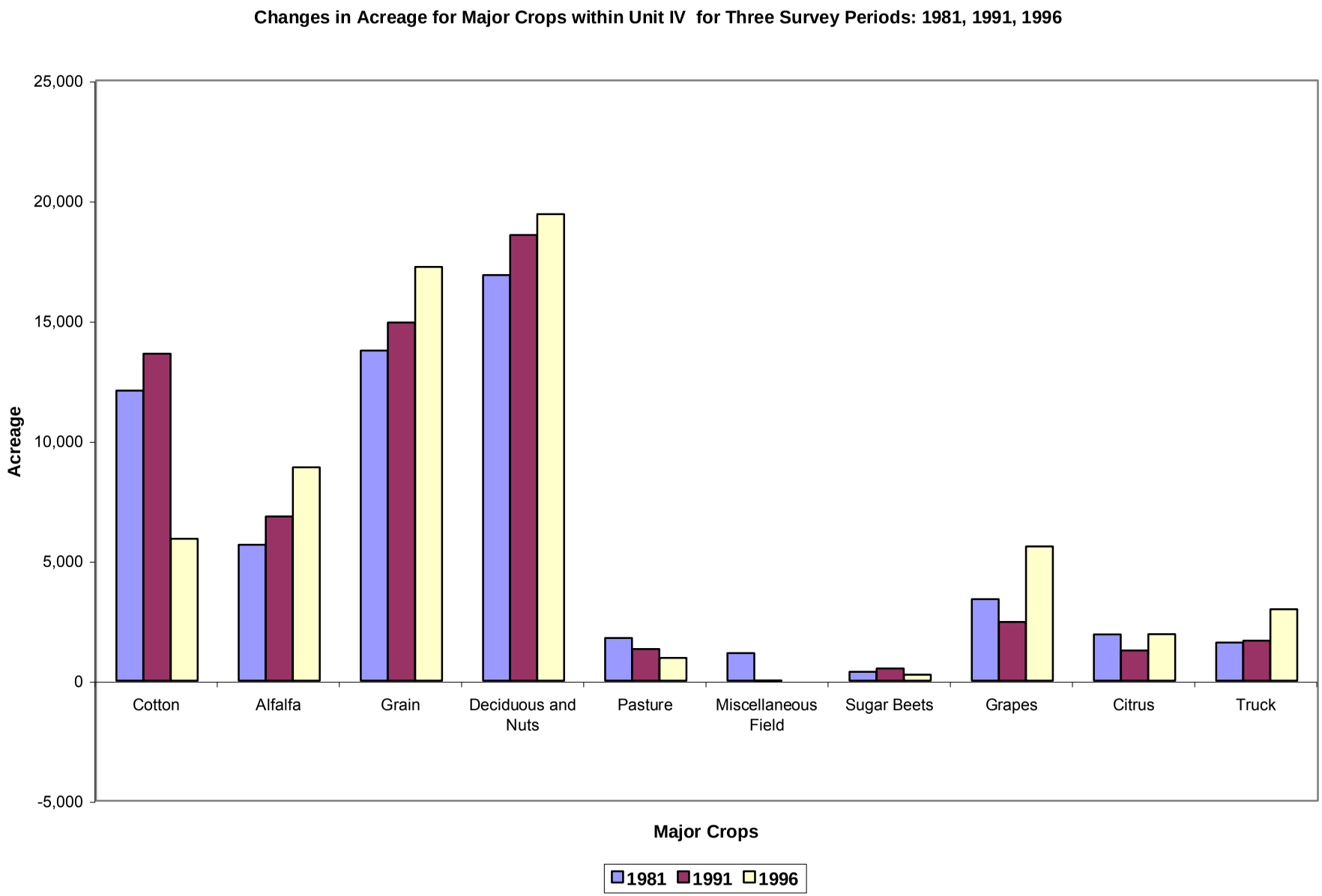

Changes in Acreage for Major Crops within Unit III for Three Survey Periods: 1981, 1991, 1996
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
Acreage
Cotton
Alfalfa
Grain
Deciduous and Nuts
Pasture
Miscellaneous Field
Grapes
Citrus
Truck
Major Crops
1981
1991
1996

Kaweah Delta Water Conservation District
1981 - 1999
Summary of Land Use for Hydrologic Unit III

	1981		1982		1983		1984		1985		1986		1987		1988		1989	
Category of Land Use	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Irrigated																		
Cotton	7,684	22%	7,528	21%	7,371	21%	7,215	20%	7,059	20%	6,902	19%	6,746	19%	6,590	19%	6,434	18%
Alfalfa	1,621	4%	1,746	5%	1,871	5%	1,995	6%	2,120	6%	2,245	6%	2,370	7%	2,495	7%	2,619	7%
Grain	4,484	13%	4,508	13%	4,532	13%	4,556	13%	4,580	13%	4,605	13%	4,629	13%	4,653	13%	4,677	13%
Deciduous and Nuts	7,006	20%	6,968	20%	6,930	20%	6,892	19%	6,855	19%	6,817	19%	6,779	19%	6,741	19%	6,704	19%
Pasture	452	1%	438	1%	423	1%	409	1%	395	1%	380	1%	366	1%	351	1%	337	1%
Miscellaneous Field	364	1%	327	1%	291	1%	255	1%	218	1%	182	1%	146	0%	109	0%	73	0%
Sugar Beets	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Grapes	247	1%	246	1%	245	1%	244	1%	242	1%	241	1%	240	1%	239	1%	237	1%
Citrus	28	0%	32	0%	35	0%	39	0%	42	0%	46	0%	50	0%	53	0%	57	0%
Truck	392	1%	382	1%	372	1%	362	1%	352	1%	343	1%	333	1%	323	1%	313	1%
	22,278	63%	22,174	63%	22,071	62%	21,967	62%	21,864	62%	21,760	61%	21,657	61%	21,553	61%	21,450	60%
Non-Irrigated																		
Urban, Commercial and Industrial	9,094	26%	9,345	26%	9,596	27%	9,847	28%	10,098	28%	10,349	29%	10,600	30%	10,851	31%	11,102	31%
Farmsteads, Dairies, Feed Lots	1,481	4%	1,422	4%	1,363	4%	1,304	4%	1,245	4%	1,187	3%	1,128	3%	1,069	3%	1,010	3%
Idle (Fallow)	1,253	3%	1,216	3%	1,180	3%	1,143	3%	1,107	3%	1,070	3%	1,033	3%	997	3%	960	3%
Roads, Channel and Canals	258	1%	251	1%	244	1%	237	1%	230	1%	223	1%	215	1%	208	1%	201	1%
Undeveloped	1,090	3%	1,046	3%	1,001	3%	957	3%	912	3%	867	2%	823	2%	778	2%	733	2%
Unknown	3	0%	3	0%	2	0%	2	0%	2	0%	2	0%	1	0%	1	0%	1	0%
Subtotal, Non-Irrigated	13,179	37%	13,283	37%	13,386	38%	13,490	38%	13,593	38%	13,697	39%	13,800	39%	13,904	39%	14,007	40%
Total	**35,457**		**35,457**		**35,457**		**35,457**		**35,457**		**35,457**		**35,457**		**35,457**		**35,457**	

1990		1991		1992		1993		1994		1995		1996		1997		1998		1999	
Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
6,277	18%	6,121	17%	5,824	16%	5,526	16%	5,229	15%	4,931	14%	4,634	13%	4,336	12%	4,039	11%	3,741	11%
2,744	8%	2,869	8%	2,853	8%	2,837	8%	2,821	8%	2,805	8%	2,789	8%	2,773	8%	2,757	8%	2,741	8%
4,701	13%	4,725	13%	4,912	14%	5,100	14%	5,287	15%	5,474	15%	5,661	16%	5,849	16%	6,036	17%	6,223	18%
6,666	19%	6,628	19%	6,592	19%	6,556	18%	6,520	18%	6,484	18%	6,447	18%	6,411	18%	6,375	18%	6,339	18%
322	1%	308	1%	300	1%	292	1%	284	1%	276	1%	268	1%	260	1%	252	1%	244	1%
36	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
236	1%	235	1%	348	1%	461	1%	574	2%	687	2%	800	2%	913	3%	1,026	3%	1,139	3%
60	0%	64	0%	62	0%	61	0%	59	0%	57	0%	55	0%	54	0%	52	0%	50	0%
303	1%	293	1%	326	1%	359	1%	392	1%	425	1%	457	1%	490	1%	523	1%	556	2%
21,346	60%	21,243	60%	21,217	60%	21,191	60%	21,164	60%	21,138	60%	21,112	60%	21,086	59%	21,059	59%	21,033	59%
11,353	32%	11,604	33%	11,654	33%	11,705	33%	11,755	33%	11,805	33%	11,855	33%	11,906	34%	11,956	34%	12,006	34%
951	3%	892	3%	925	3%	958	3%	991	3%	1,025	3%	1,058	3%	1,091	3%	1,124	3%	1,157	3%
924	3%	887	3%	888	3%	889	3%	890	3%	892	3%	893	3%	894	3%	895	3%	896	3%
194	1%	187	1%	191	1%	196	1%	200	1%	205	1%	209	1%	213	1%	218	1%	222	1%
689	2%	644	2%	581	2%	519	1%	456	1%	393	1%	330	1%	268	1%	205	1%	142	0%
0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
14,111	40%	14,214	40%	14,240	40%	14,266	40%	14,292	40%	14,319	40%	14,345	40%	14,371	41%	14,397	41%	14,423	41%
35,457		**35,457**		**35,457**		**35,457**		**35,457**		**35,457**		**35,456**		**35,456**		**35,456**		**35,456**	

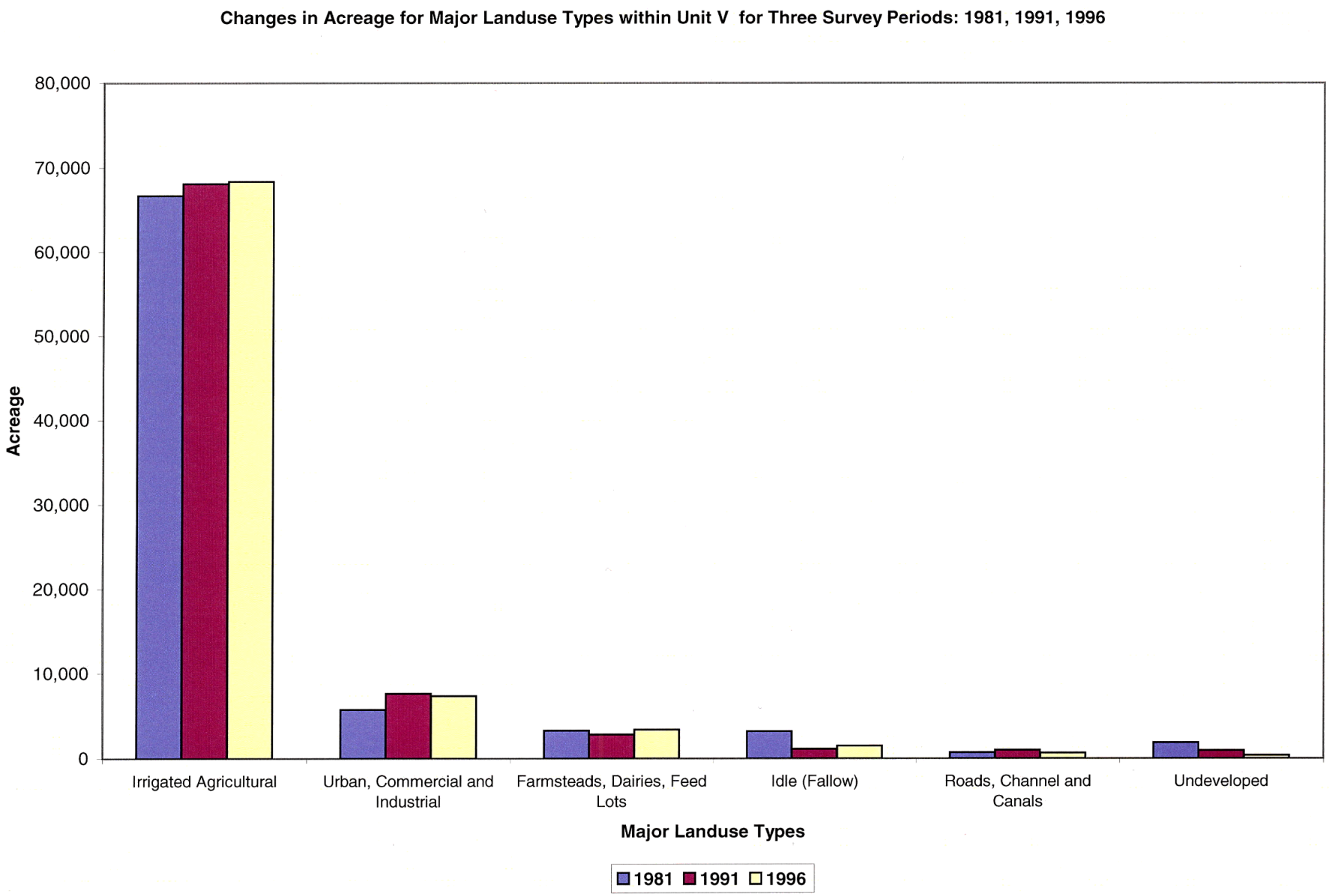

Changes in Acreage for Major Landuse Types within Unit IV for Three Survey Periods: 1981, 1991, 1996
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
Acreage
Irrigated Agricultural
Urban, Commercial and Industrial
Farmsteads, Dairies, Feed Lots
Idle (Fallow)
Roads, Channel and Canals
Undeveloped
Major Landuse Types
1981
1991
1996

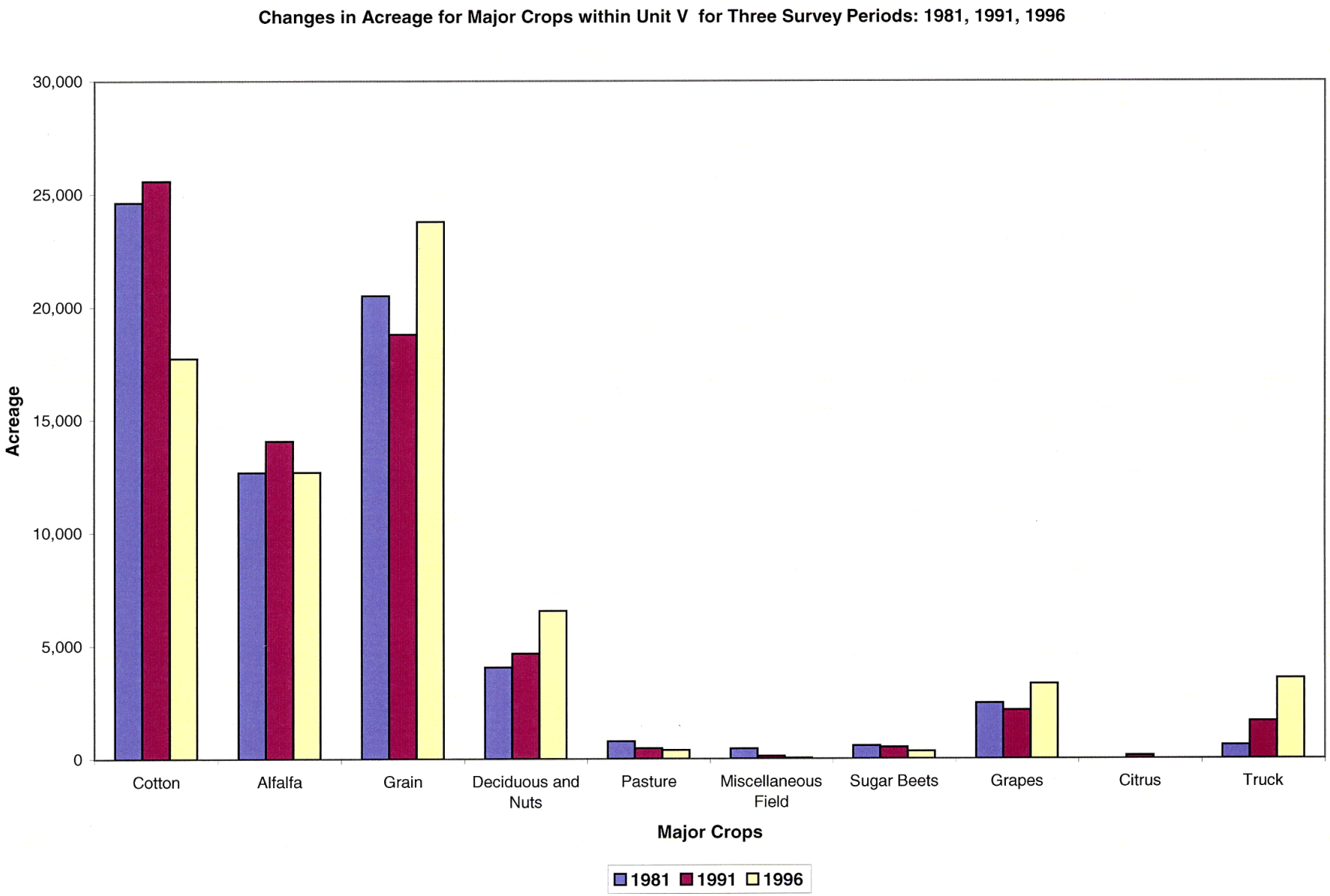

Changes in Acreage for Major Crops within Unit IV for Three Survey Periods: 1981, 1991, 1996
25,000
20,000
15,000
10,000
5,000
0
-5,000
Acreage
Cotton
Alfalfa
Grain
Deciduous and Nuts
Pasture
Miscellaneous Field
Sugar Beets
Grapes
Citrus
Truck
Major Crops
1981
1991
1996

Kaweah Delta Water Conservation District
1981 - 1999
Summary of Land Use for Hydrologic Unit IV

	1981		1982		1983		1984		1985		1986		1987		1988		1989	
Category of Land Use	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Irrigated																		
Cotton	12,083	16%	12,237	17%	12,390	17%	12,544	17%	12,698	17%	12,852	17%	13,005	18%	13,159	18%	13,313	18%
Alfalfa	5,665	8%	5,782	8%	5,899	8%	6,016	8%	6,133	8%	6,251	8%	6,368	9%	6,485	9%	6,602	9%
Grain	13,747	19%	13,864	19%	13,981	19%	14,098	19%	14,215	19%	14,333	19%	14,450	20%	14,567	20%	14,684	20%
Deciduous and Nuts	16,893	23%	17,060	23%	17,227	23%	17,394	24%	17,560	24%	17,727	24%	17,894	24%	18,061	24%	18,227	25%
Pasture	1,777	2%	1,731	2%	1,686	2%	1,640	2%	1,594	2%	1,549	2%	1,503	2%	1,457	2%	1,411	2%
Miscellaneous Field	1,153	2%	1,037	1%	920	1%	804	1%	687	1%	571	1%	455	1%	338	0%	222	0%
Sugar Beets	370	1%	384	1%	398	1%	411	1%	425	1%	439	1%	453	1%	467	1%	480	1%
Grapes	3,397	5%	3,302	4%	3,206	4%	3,111	4%	3,016	4%	2,921	4%	2,825	4%	2,730	4%	2,635	4%
Citrus	1,925	3%	1,858	3%	1,791	2%	1,724	2%	1,657	2%	1,590	2%	1,523	2%	1,456	2%	1,389	2%
Truck	1,591	2%	1,598	2%	1,606	2%	1,614	2%	1,622	2%	1,629	2%	1,637	2%	1,645	2%	1,653	2%
	58,606	79%	58,858	80%	59,108	80%	59,359	80%	59,611	81%	59,863	81%	60,114	81%	60,366	82%	60,616	82%
Non-Irrigated																		
Urban, Commercial and Industrial	1,752	2%	2,018	3%	2,283	3%	2,548	3%	2,814	4%	3,079	4%	3,345	5%	3,610	5%	3,875	5%
Farmsteads, Dairies, Feed Lots	2,516	3%	2,527	3%	2,538	3%	2,549	3%	2,559	3%	2,570	3%	2,581	3%	2,592	4%	2,602	4%
Idle (Fallow)	5,004	7%	4,684	6%	4,363	6%	4,043	5%	3,723	5%	3,402	5%	3,082	4%	2,762	4%	2,442	3%
Roads, Channel and Canals	222	0%	229	0%	236	0%	243	0%	250	0%	257	0%	265	0%	272	0%	279	0%
Undeveloped	5,659	8%	5,450	7%	5,241	7%	5,031	7%	4,822	7%	4,613	6%	4,403	6%	4,194	6%	3,985	5%
Unknown	49	0%	44	0%	39	0%	34	0%	29	0%	25	0%	20	0%	15	0%	10	0%
Subtotal, Non-Irrigated	15,203	21%	14,951	20%	14,700	20%	14,449	20%	14,198	19%	13,946	19%	13,695	19%	13,444	18%	13,193	18%
Total	**73,808**		**73,809**		**73,808**		**73,808**		**73,809**		**73,809**		**73,809**		**73,809**		**73,809**	

1990		1991		1992		1993		1994		1995		1996		1997		1998		1999	
Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
13,466	18%	13,620	18%	12,657	17%	11,694	16%	10,731	15%	9,768	13%	8,804	12%	7,841	11%	6,878	9%	5,915	8%
6,719	9%	6,836	9%	7,092	10%	7,349	10%	7,605	10%	7,862	11%	8,118	11%	8,374	11%	8,631	12%	8,887	12%
14,801	20%	14,918	20%	15,208	21%	15,497	21%	15,787	21%	16,077	22%	16,366	22%	16,656	23%	16,945	23%	17,235	23%
18,394	25%	18,561	25%	18,669	25%	18,778	25%	18,886	26%	18,995	26%	19,103	26%	19,211	26%	19,320	26%	19,428	26%
1,366	2%	1,320	2%	1,274	2%	1,228	2%	1,182	2%	1,137	2%	1,091	1%	1,045	1%	999	1%	953	1%
105	0%	(11)	0%	(9)	0%	(8)	0%	(6)	0%	(5)	0%	(3)	0%	(1)	0%	0	0%	2	0%
494	1%	508	1%	477	1%	445	1%	414	1%	382	1%	351	0%	319	0%	288	0%	256	0%
2,539	3%	2,444	3%	2,838	4%	3,231	4%	3,625	5%	4,018	5%	4,412	6%	4,805	7%	5,199	7%	5,592	8%
1,322	2%	1,255	2%	1,340	2%	1,426	2%	1,511	2%	1,597	2%	1,682	2%	1,767	2%	1,853	3%	1,938	3%
1,660	2%	1,668	2%	1,832	2%	1,996	3%	2,160	3%	2,324	3%	2,487	3%	2,651	4%	2,815	4%	2,979	4%
60,867	82%	61,119	83%	61,377	83%	61,636	84%	61,894	84%	62,152	84%	62,410	85%	62,669	85%	62,927	85%	63,185	86%
4,141	6%	4,406	6%	4,320	6%	4,234	6%	4,147	6%	4,061	6%	3,975	5%	3,889	5%	3,802	5%	3,716	5%
2,613	4%	2,624	4%	2,738	4%	2,852	4%	2,966	4%	3,080	4%	3,194	4%	3,308	4%	3,422	5%	3,536	5%
2,121	3%	1,801	2%	1,801	2%	1,802	2%	1,802	2%	1,802	2%	1,802	2%	1,803	2%	1,803	2%	1,803	2%
286	0%	293	0%	341	0%	389	1%	437	1%	485	1%	533	1%	581	1%	629	1%	677	1%
3,775	5%	3,566	5%	3,232	4%	2,897	4%	2,563	3%	2,229	3%	1,894	3%	1,560	2%	1,225	2%	891	1%
5	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
12,941	18%	12,690	17%	12,432	17%	12,173	16%	11,915	16%	11,657	16%	11,398	15%	11,140	15%	10,881	15%	10,623	14%
73,808		**73,809**		**73,809**		**73,809**		**73,809**		**73,809**		**73,808**		**73,808**		**73,808**		**73,808**	

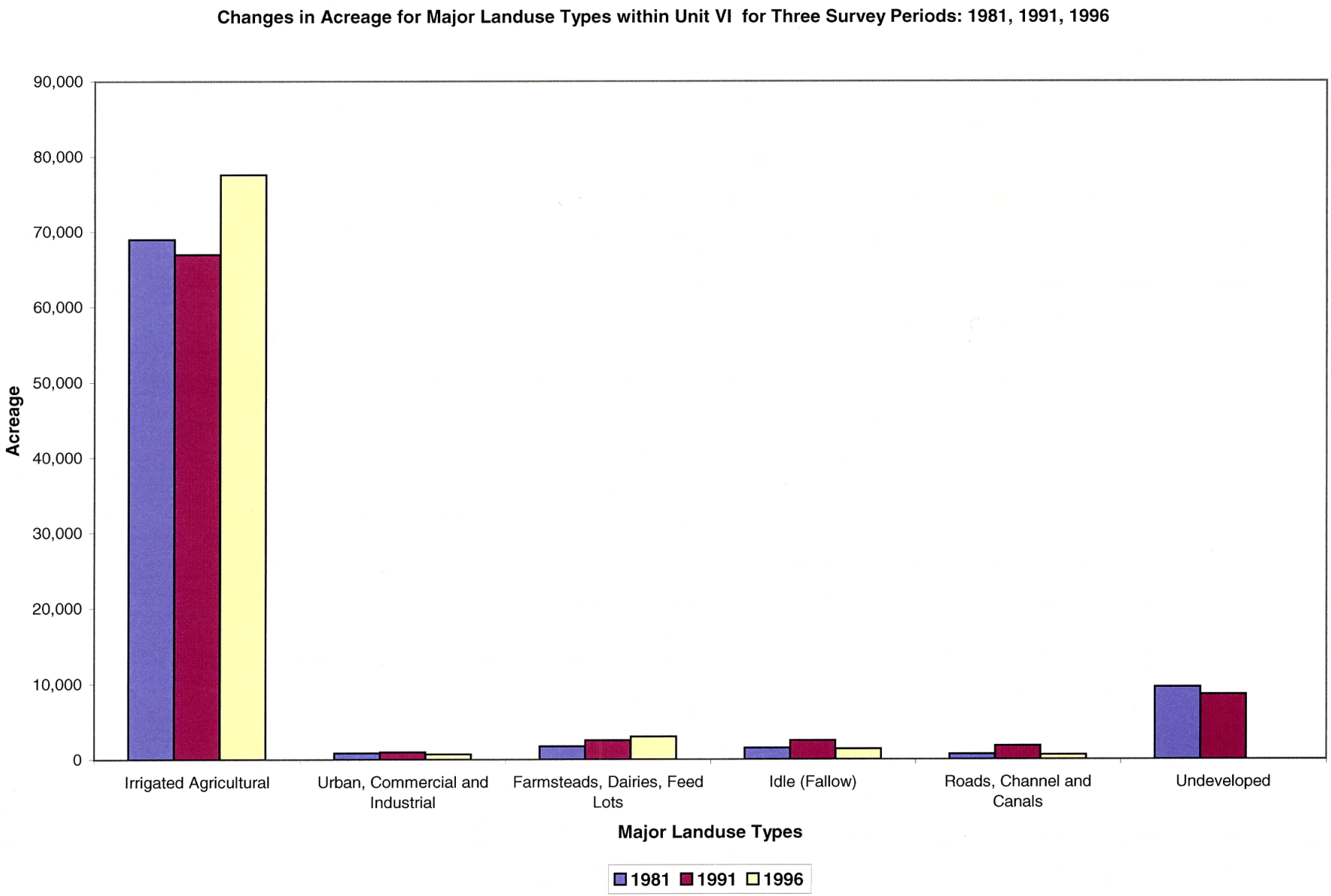

Changes in Acreage for Major Landuse Types within Unit V for Three Survey Periods: 1981, 1991, 1996
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
Acreage
Irrigated Agricultural
Urban, Commercial and Industrial
Farmsteads, Dairies, Feed Lots
Idle (Fallow)
Roads, Channel and Canals
Undeveloped
Major Landuse Types
1981
1991
1996

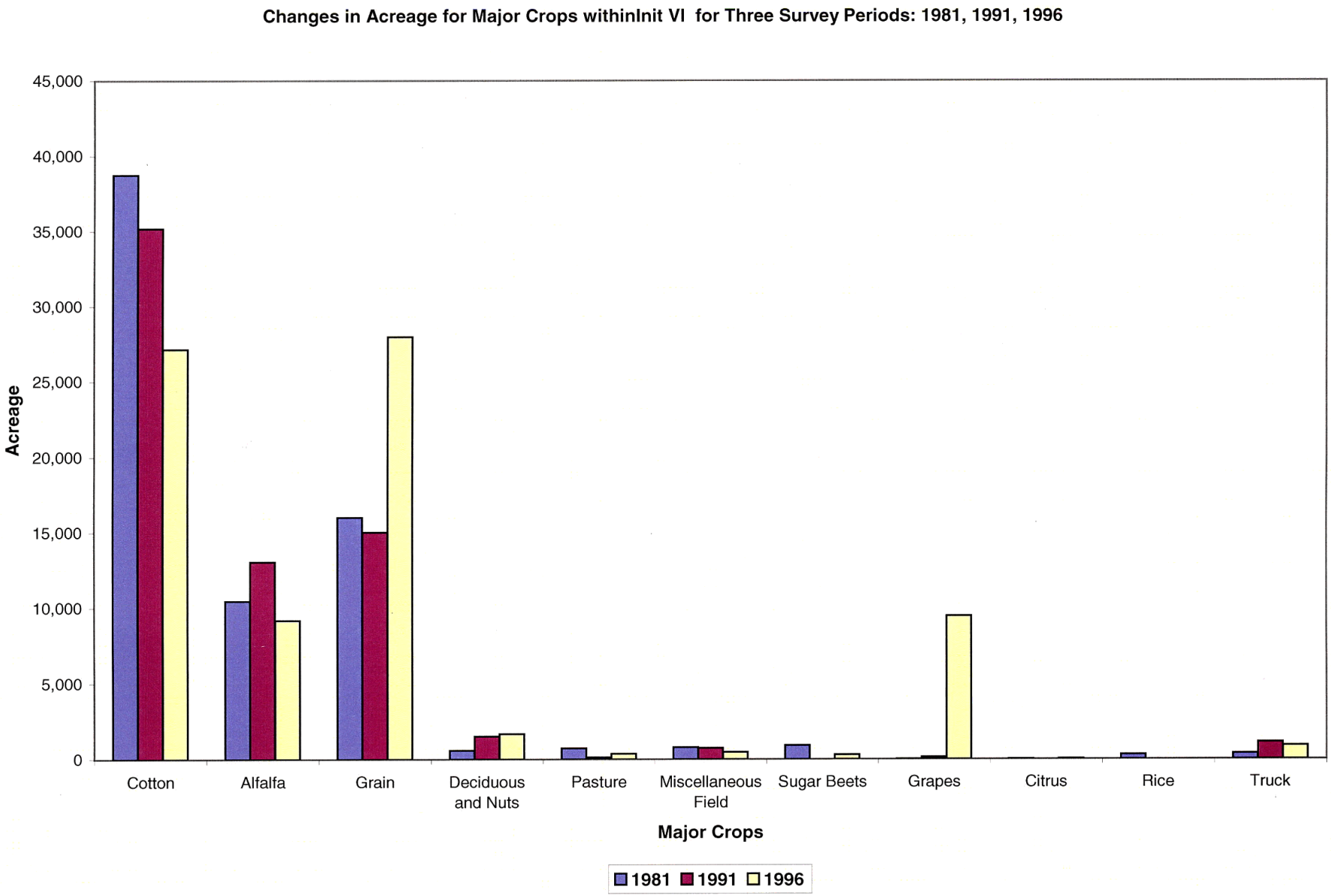

Changes in Acreage for Major Crops within Unit V for Three Survey Periods: 1981, 1991, 1996
30,000
25,000
20,000
15,000
10,000
5,000
0
Acreage
Cotton
Alfalfa
Grain
Deciduous and Nuts
Pasture
Miscellaneous Field
Sugar Beets
Grapes
Citrus
Truck
Major Crops
1981
1991
1996

Kaweah Delta Water Conservation District
1981 - 1999
Summary of Land Use for Hydrologic Unit V

	1981		1982		1983		1984		1985		1986		1987		1988		1989	
Category of Land Use	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Irrigated																		
Cotton	24,620	30%	24,716	30%	24,813	30%	24,909	30%	25,005	31%	25,101	31%	25,197	31%	25,293	31%	25,389	31%
Alfalfa	12,669	16%	12,809	16%	12,948	16%	13,088	16%	13,228	16%	13,368	16%	13,507	17%	13,647	17%	13,787	17%
Grain	20,518	25%	20,346	25%	20,175	25%	20,003	24%	19,832	24%	19,660	24%	19,488	24%	19,317	24%	19,145	23%
Deciduous and Nuts	4,051	5%	4,112	5%	4,173	5%	4,235	5%	4,296	5%	4,357	5%	4,418	5%	4,479	5%	4,540	6%
Pasture	774	1%	743	1%	712	1%	681	1%	650	1%	619	1%	589	1%	558	1%	527	1%
Miscellaneous Field	447	1%	414	1%	380	0%	347	0%	313	0%	280	0%	246	0%	213	0%	179	0%
Sugar Beets	577	1%	570	1%	563	1%	556	1%	549	1%	541	1%	534	1%	527	1%	520	1%
Grapes	2,451	3%	2,421	3%	2,390	3%	2,360	3%	2,330	3%	2,299	3%	2,269	3%	2,238	3%	2,208	3%
Citrus	3	0%	16	0%	30	0%	44	0%	57	0%	71	0%	84	0%	98	0%	112	0%
Truck	597	1%	703	1%	809	1%	915	1%	1,021	1%	1,127	1%	1,233	2%	1,339	2%	1,445	2%
	66,707	82%	66,850	82%	66,993	82%	67,136	82%	67,279	82%	67,422	83%	67,565	83%	67,708	83%	67,851	83%
Non-Irrigated																		
Urban, Commercial and Industrial	5,754	7%	5,945	7%	6,135	8%	6,325	8%	6,516	8%	6,706	8%	6,897	8%	7,087	9%	7,277	9%
Farmsteads, Dairies, Feed Lots	3,290	4%	3,243	4%	3,196	4%	3,149	4%	3,102	4%	3,054	4%	3,007	4%	2,960	4%	2,913	4%
Idle (Fallow)	3,193	4%	2,986	4%	2,779	3%	2,571	3%	2,364	3%	2,157	3%	1,950	2%	1,743	2%	1,535	2%
Roads, Channel and Canals	719	1%	747	1%	775	1%	804	1%	832	1%	860	1%	888	1%	916	1%	944	1%
Undeveloped	1,857	2%	1,766	2%	1,674	2%	1,583	2%	1,492	2%	1,400	2%	1,309	2%	1,218	1%	1,127	1%
Unknown	158	0%	142	0%	126	0%	111	0%	95	0%	79	0%	63	0%	47	0%	32	0%
Subtotal, Non-Irrigated	14,971	18%	14,829	18%	14,686	18%	14,543	18%	14,400	18%	14,257	17%	14,114	17%	13,971	17%	13,828	17%
Total	**81,679**		**81,679**		**81,679**		**81,679**		**81,679**		**81,679**		**81,679**		**81,679**		**81,679**	

1990		1991		1992		1993		1994		1995		1996		1997		1998		1999	
Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
25,485	31%	25,581	31%	24,600	30%	23,619	29%	22,638	28%	21,658	27%	20,677	25%	19,696	24%	18,715	23%	17,734	22%
13,926	17%	14,066	17%	13,893	17%	13,721	17%	13,548	17%	13,375	16%	13,202	16%	13,030	16%	12,857	16%	12,684	16%
18,974	23%	18,802	23%	19,426	24%	20,049	25%	20,673	25%	21,297	26%	21,920	27%	22,544	28%	23,167	28%	23,791	29%
4,601	6%	4,662	6%	4,899	6%	5,136	6%	5,373	7%	5,610	7%	5,846	7%	6,083	7%	6,320	8%	6,557	8%
496	1%	465	1%	455	1%	446	1%	436	1%	426	1%	416	1%	407	0%	397	0%	387	0%
146	0%	112	0%	102	0%	92	0%	82	0%	73	0%	63	0%	53	0%	43	0%	33	0%
513	1%	506	1%	485	1%	463	1%	442	1%	420	1%	399	0%	377	0%	356	0%	334	0%
2,177	3%	2,147	3%	2,293	3%	2,438	3%	2,584	3%	2,730	3%	2,875	4%	3,021	4%	3,166	4%	3,312	4%
125	0%	139	0%	122	0%	105	0%	88	0%	71	0%	53	0%	36	0%	19	0%	2	0%
1,551	2%	1,657	2%	1,893	2%	2,130	3%	2,366	3%	2,603	3%	2,839	3%	3,075	4%	3,312	4%	3,548	4%
67,994	83%	68,137	83%	68,168	83%	68,198	83%	68,229	84%	68,260	84%	68,290	84%	68,321	84%	68,351	84%	68,382	84%
7,468	9%	7,658	9%	7,622	9%	7,585	9%	7,549	9%	7,513	9%	7,476	9%	7,440	9%	7,403	9%	7,367	9%
2,866	4%	2,819	3%	2,893	4%	2,967	4%	3,041	4%	3,115	4%	3,189	4%	3,263	4%	3,337	4%	3,411	4%
1,328	2%	1,121	1%	1,169	1%	1,217	1%	1,265	2%	1,313	2%	1,361	2%	1,409	2%	1,457	2%	1,505	2%
972	1%	1,000	1%	956	1%	913	1%	869	1%	825	1%	781	1%	738	1%	694	1%	650	1%
1,035	1%	944	1%	871	1%	799	1%	726	1%	654	1%	581	1%	508	1%	436	1%	363	0%
16	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%
13,685	17%	13,542	17%	13,511	17%	13,481	17%	13,450	16%	13,419	16%	13,388	16%	13,358	16%	13,327	16%	13,296	16%
81,679		**81,679**		**81,679**		**81,679**		**81,679**		**81,679**		**81,678**		**81,678**		**81,678**		**81,678**	


Changes in Acreage for Major Landuse Types within Unit VI for Three Survey Periods: 1981, 1991, 1996
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
Acreage
Irrigated Agricultural
Urban, Commercial and Industrial
Farmsteads, Dairies, Feed Lots
Idle (Fallow)
Roads, Channel and Canals
Undeveloped
Major Landuse Types
1981
1991
1996


Changes in Acreage for Major Crops withinInit VI for Three Survey Periods: 1981, 1991, 1996
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
Acreage
Cotton
Alfalfa
Grain
Deciduous and Nuts
Pasture
Miscellaneous Field
Sugar Beets
Grapes
Citrus
Rice
Truck
Major Crops
1981
1991
1996

Kaweah Delta Water Conservation District

1981 - 1999

Summary of Land Use for Hydrologic Unit VI

	1981		1982		1983		1984		1985		1986		1987		1988		1989	
Category of Land Use	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Irrigated																		
Cotton	38,741	46%	38,385	46%	38,029	46%	37,673	45%	37,317	45%	36,961	44%	36,604	44%	36,248	43%	35,892	43%
Alfalfa	10,467	13%	10,726	13%	10,986	13%	11,245	13%	11,504	14%	11,764	14%	12,023	14%	12,282	15%	12,541	15%
Grain	16,020	19%	15,921	19%	15,823	19%	15,724	19%	15,625	19%	15,527	19%	15,428	19%	15,329	18%	15,230	18%
Deciduous and Nuts	582	1%	676	1%	770	1%	865	1%	959	1%	1,053	1%	1,147	1%	1,241	1%	1,336	2%
Pasture	729	1%	669	1%	609	1%	550	1%	490	1%	430	1%	370	0%	310	0%	251	0%
Miscellaneous Field	792	1%	787	1%	783	1%	778	1%	773	1%	769	1%	764	1%	759	1%	754	1%
Sugar Beets	922	1%	830	1%	738	1%	645	1%	553	1%	461	1%	369	0%	277	0%	184	0%
Grapes	12	0%	25	0%	39	0%	52	0%	65	0%	79	0%	92	0%	105	0%	118	0%
Citrus	9	0%	8	0%	7	0%	6	0%	5	0%	5	0%	4	0%	3	0%	2	0%
Rice	308	0%	277	0%	246	0%	216	0%	185	0%	154	0%	123	0%	92	0%	62	0%
Truck	379	0%	455	1%	531	1%	606	1%	682	1%	757	1%	833	1%	908	1%	984	1%
	68,961	83%	68,761	83%	68,560	82%	68,359	82%	68,158	82%	67,957	82%	67,756	81%	67,556	81%	67,355	81%
Non-Irrigated																		
Urban, Commercial and Industrial	851	1%	863	1%	875	1%	888	1%	900	1%	912	1%	924	1%	936	1%	949	1%
Farmsteads, Dairies, Feed Lots	1,754	2%	1,832	2%	1,910	2%	1,989	2%	2,067	2%	2,145	3%	2,224	3%	2,302	3%	2,380	3%
Idle (Fallow)	1,511	2%	1,610	2%	1,709	2%	1,808	2%	1,906	2%	2,005	2%	2,104	3%	2,203	3%	2,301	3%
Roads, Channel and Canals	694	1%	805	1%	916	1%	1,028	1%	1,139	1%	1,250	1%	1,361	2%	1,472	2%	1,584	2%
Undeveloped	9,569	11%	9,470	11%	9,370	11%	9,271	11%	9,172	11%	9,073	11%	8,973	11%	8,874	11%	8,775	11%
Unknown	5	0%	4	0%	4	0%	3	0%	3	0%	2	0%	2	0%	1	0%	1	0%
Subtotal, Non-Irrigated	14,383	17%	14,584	17%	14,785	18%	14,986	18%	15,186	18%	15,387	18%	15,588	19%	15,789	19%	15,989	19%
Total	**83,345**		**83,345**		**83,345**		**83,345**		**83,344**		**83,344**		**83,344**		**83,344**		**83,344**	

1990		1991		1992		1993		1994		1995		1996		1997		1998		1999	
Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
35,536	43%	35,180	42%	34,176	41%	33,171	40%	32,167	39%	31,163	37%	30,158	36%	29,154	35%	28,149	34%	27,145	33%
12,801	15%	13,060	16%	12,578	15%	12,095	15%	11,613	14%	11,131	13%	10,648	13%	10,166	12%	9,683	12%	9,201	11%
15,132	18%	15,033	18%	16,652	20%	18,271	22%	19,890	24%	21,510	26%	23,129	28%	24,748	30%	26,367	32%	27,986	34%
1,430	2%	1,524	2%	1,544	2%	1,565	2%	1,585	2%	1,606	2%	1,626	2%	1,646	2%	1,667	2%	1,687	2%
191	0%	131	0%	160	0%	189	0%	218	0%	247	0%	275	0%	304	0%	333	0%	362	0%
750	1%	745	1%	711	1%	678	1%	644	1%	610	1%	576	1%	543	1%	509	1%	475	1%
92	0%	0	0%	39	0%	78	0%	116	0%	155	0%	194	0%	233	0%	271	0%	310	0%
132	0%	145	0%	1,313	2%	2,481	3%	3,649	4%	4,817	6%	5,984	7%	7,152	9%	8,320	10%	9,488	11%
1	0%	0	0%	3	0%	7	0%	10	0%	14	0%	17	0%	20	0%	24	0%	27	0%
31	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
1,059	1%	1,135	1%	1,107	1%	1,078	1%	1,050	1%	1,021	1%	993	1%	964	1%	936	1%	907	1%
67,154	81%	66,953	80%	68,282	82%	69,612	84%	70,941	85%	72,271	87%	73,600	88%	74,929	90%	76,259	91%	77,588	93%
961	1%	973	1%	940	1%	907	1%	873	1%	840	1%	807	1%	774	1%	740	1%	707	1%
2,459	3%	2,537	3%	2,599	3%	2,660	3%	2,722	3%	2,784	3%	2,845	3%	2,907	3%	2,968	4%	3,030	4%
2,400	3%	2,499	3%	2,361	3%	2,224	3%	2,086	3%	1,949	2%	1,811	2%	1,673	2%	1,536	2%	1,398	2%
1,695	2%	1,806	2%	1,656	2%	1,506	2%	1,356	2%	1,206	1%	1,056	1%	906	1%	756	1%	606	1%
8,675	10%	8,576	10%	7,506	9%	6,436	8%	5,366	6%	4,296	5%	3,225	4%	2,155	3%	1,085	1%	15	0%
0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
16,190	19%	16,391	20%	15,062	18%	13,732	16%	12,403	15%	11,074	13%	9,744	12%	8,415	10%	7,085	9%	5,756	7%
83,344		**83,344**		**83,344**		**83,344**		**83,344**		**83,344**		**83,344**		**83,344**		**83,344**		**83,344**	

APPENDIX F
LAND USE DATA

FUGRO WEST, INC.

Kaweah Delta
Water Conservation District
2975 North Farmersville Boulevard
Farmersville, California 93223

Fugro West, Inc.
4820 McGrath Street, Suite 100
Ventura, California 93003
Tel (805) 650-7000
Fax (805) 650-7010

ATTACHMENT 7 – ECONOMIC ANALYSIS – WATER SUPPLY COSTS AND BENEFITS

APPENDIX P

Estimates of Reduced Groundwater Extraction Costs

Table 1. The Amount of Energy in Kilowatt-Hours (kWh) Required to Lift One Acre-foot of Water (325,851 gallons) One Foot of Elevation

Overall Plant Efficiency (%)	Energy to Lift One Acre-foot (325,851 gallons) One Foot in Elevation (kWh)	Cost to Lift One Acre-Foot One Foot in Elevation ($0.10/kWh)
100	1.02	$.102
75	1.37	.137
70	1.46	.146
65	1.58	.158
60	1.71	.171
55	1.86	.186
50	2.05	.205
45	2.28	.228
40	2.56	.256