Central Arizona Irrigation District Analysis and Summary -- 2001 through 2050
Alternative 3b

Table D-65

Year	Acres in Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres	
2001	59,723	0	163,825	39,957	203,782	28,546	22,823	2,957	3,116	2,281		59,723	218,882
2004	59,723	0	154,267	49,515	203,782	28,546	22,823	2,957	3,116	2,281		59,723	218,882
2017	59,723	0	96,202	122,679	218,882	28,546	22,823	2,957	3,116	2,281		59,723	218,882
2030	59,723	0	36,349	182,533	218,882	28,546	22,823	2,957	3,116	2,281		59,723	218,882
2043	36,900	22,823	0	157,945	157,945	28,546	0	2,957	3,116	2,281		36,900	157,945
2050	36,900	0	0	157,945	157,945	28,546	0	2,957	3,116	2,281		36,900	157,945
		22,823											

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	26,224,639	8,387,453	2,240,667				36,852,759
2004	26,224,639	8,387,453	2,240,667				36,852,759
2017	26,224,639	8,387,453	2,240,667				36,852,759
2030	26,224,639	8,387,453	2,240,667				36,852,759
2043	26,224,639	0	2,240,667				28,465,306
2050	26,224,639	0	2,240,667				28,465,306

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

Hohokam Irrigation District Analysis and Summary -- 2001 through 2050
Settlement Alternative

Table D-66

Year	Acres in Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres	Total Water Demand
2001	25,708	0	91,740	10,065	101,805	12,817	8,627	3,632	632	0		25,708	101,805
2004	25,708	0	88,676	13,128	101,805	12,817	8,627	3,632	632	0		25,708	101,805
2017	25,708	0	33,120	68,685	101,805	12,817	8,627	3,632	632	0		25,708	101,805
2030	25,708	0	18,630	83,175	101,805	12,817	8,627	3,632	632	0		25,708	101,805
2043	25,708	0	6,398	95,407	101,805	12,817	8,627	3,632	632	0		25,708	101,805
2050	25,708	0	0	101,805	101,805	12,817	8,627	3,632	632	0		25,708	101,805

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	11,774,722	3,170,423	2,752,148				17,697,292
2004	11,774,722	3,170,423	2,752,148				17,697,292
2017	11,774,722	3,170,423	2,752,148				17,697,292
2030	11,774,722	3,170,423	2,752,148				17,697,292
2043	11,774,722	3,170,423	2,752,148				17,697,292
2050	11,774,722	3,170,423	2,752,148				17,697,292

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

Hohokam Irrigation District Analysis and Summary – 2001 through 2050
No Action Alternative

Table D-67

Year	Acres in Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization
2001	25,708	0	23,733	31,872	55,605
2004	25,708	0	22,320	33,285	55,605
2017	25,708	0	13,916	87,888	101,805
2030	25,708	0	7,678	94,127	101,805
2043	25,708	0	1,440	100,365	101,805
2050	25,708	0	0	101,805	101,805

	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres
2001	12,817	8,627	3,632	632	0		25,708
2004	12,817	8,627	3,632	632	0		25,708
2017	12,817	8,627	3,632	632	0		25,708
2030	12,817	8,627	3,632	632	0		25,708
2043	12,817	8,627	3,632	632	0		25,708
2050	12,817	8,627	3,632	632	0		25,708

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	11,774,722	3,170,423	2,752,148				17,697,292
2004	11,774,722	3,170,423	2,752,148				17,697,292
2017	11,774,722	3,170,423	2,752,148				17,697,292
2030	11,774,722	3,170,423	2,752,148				17,697,292
2043	11,774,722	3,170,423	2,752,148				17,697,292
2050	11,774,722	3,170,423	2,752,148				17,697,292

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

Hohokam Irrigation District Analysis and Summary -- 2001 through 2050
Alternative 1

Table D-68

Year	Acres in Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization
2001	25,708	0	23,860	31,744	55,605
2004	25,708	0	22,478	33,127	55,605
2017	25,708	0	13,631	88,173	101,805
2030	25,708	0	7,521	94,284	101,805
2043	25,708	0	1,410	100,394	101,805
2050	25,708	0	0	101,805	101,805

	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres
2001	12,817	8,627	3,632	632	0		25,708
2004	12,817	8,627	3,632	632	0		25,708
2017	12,817	8,627	3,632	632	0		25,708
2030	12,817	8,627	3,632	632	0		25,708
2043	12,817	8,627	3,632	632	0		25,708
2050	12,817	8,627	3,632	632	0		25,708

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	11,774,722	3,170,423	2,752,148				17,697,292
2004	11,774,722	3,170,423	2,752,148				17,697,292
2017	11,774,722	3,170,423	2,752,148				17,697,292
2030	11,774,722	3,170,423	2,752,148				17,697,292
2043	11,774,722	3,170,423	2,752,148				17,697,292
2050	11,774,722	3,170,423	2,752,148				17,697,292

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

Hohokam Irrigation District Analysis and Summary -- 2001 through 2050
Alternative 2

Table D-69

Year	Acres in Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization
2001	25,708	0	23,733	31,872	55,605
2004	25,708	0	22,320	33,285	55,605
2017	25,708	0	13,015	88,790	101,805
2030	25,708	0	7,180	94,624	101,805
2043	25,708	0	0	101,805	101,805
2050	25,708	0	0	101,805	101,805

	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres
2001	12,817	8,627	3,632	632	0		25,708
2004	12,817	8,627	3,632	632	0		25,708
2017	12,817	8,627	3,632	632	0		25,708
2030	12,817	8,627	3,632	632	0		25,708
2043	12,817	8,627	3,632	632	0		25,708
2050	12,817	8,627	3,632	632	0		25,708

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	11,774,722	3,170,423	2,752,148				17,697,292
2004	11,774,722	3,170,423	2,752,148				17,697,292
2017	11,774,722	3,170,423	2,752,148				17,697,292
2030	11,774,722	3,170,423	2,752,148				17,697,292
2043	11,774,722	3,170,423	2,752,148				17,697,292
2050	11,774,722	3,170,423	2,752,148				17,697,292

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

Hohokam Irrigation District Analysis and Summary – 2001 through 2050
Alternative 3a

Table D-70

Year	Acres In Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres
2001	25,708	0	22,125	33,480	55,605	12,817	8,627	3,632	632	0		25,708
2004	25,708	0	20,712	34,893	55,605	12,817	8,627	3,632	632	0		25,708
2017	25,708	0	13,015	88,790	101,805	12,817	8,627	3,632	632	0		25,708
2030	25,708	0	3,723	98,082	101,805	12,817	8,627	3,632	632	0		25,708
2043	25,708	0	0	101,805	101,805	12,817	8,627	3,632	632	0		25,708
2050	25,708	0	0	101,805	101,805	12,817	8,627	3,632	632	0		25,708

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	11,774,722	3,170,423	2,752,148				17,697,292
2004	11,774,722	3,170,423	2,752,148				17,697,292
2017	11,774,722	3,170,423	2,752,148				17,697,292
2030	11,774,722	3,170,423	2,752,148				17,697,292
2043	11,774,722	3,170,423	2,752,148				17,697,292
2050	11,774,722	3,170,423	2,752,148				17,697,292

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

Hohokam Irrigation District Analysis and Summary -- 2001 through 2050
Alternative 3b

Table D-71

Year	Acres in Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization
2001	25,708	0	22,163	33,442	55,605
2004	25,708	0	20,870	34,735	55,605
2017	25,708	0	13,015	88,790	101,805
2030	25,708	0	4,917	96,887	101,805
2043	25,708	0	0	101,805	101,805
2050	25,708	0	0	101,805	101,805

	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres
2001	12,817	8,627	3,632	632	0		25,708
2004	12,817	8,627	3,632	632	0		25,708
2017	12,817	8,627	3,632	632	0		25,708
2030	12,817	8,627	3,632	632	0		25,708
2043	12,817	8,627	3,632	632	0		25,708
2050	12,817	8,627	3,632	632	0		25,708

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	11,774,722	3,170,423	2,752,148				17,697,292
2004	11,774,722	3,170,423	2,752,148				17,697,292
2017	11,774,722	3,170,423	2,752,148				17,697,292
2030	11,774,722	3,170,423	2,752,148				17,697,292
2043	11,774,722	3,170,423	2,752,148				17,697,292
2050	11,774,722	3,170,423	2,752,148				17,697,292

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

New Magma Irrigation District Analysis and Summary -- 2001 through 2050
Settlement Alternative

Table D-72

Year	Acres in Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres	Total Water Demand
2001	23,261	0	81,190	20,137	101,327	9,042	5,107	5,449	1,808	1,855		23,261	101,327
2004	23,261	0	78,015	23,311	101,327	9,042	5,107	5,449	1,808	1,855		23,261	101,327
2017	18,154	5,107	34,320	53,371	87,691	9,042	0	5,449	1,808	1,855		18,154	87,691
2030	12,705	5,449	19,305	32,531	51,836	9,042	0	0	1,808	1,855		12,705	51,836
2043	12,705	0	6,630	45,207	51,836	9,042	0	0	1,808	1,855		12,705	51,836
2050	12,705	0	0	51,836	51,836	9,042	0	0	1,808	1,855		12,705	51,836
		10,556											

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	8,306,705	1,876,823	4,128,980				14,312,507
2004	8,306,705	1,876,823	4,128,980				14,312,507
2017	8,306,705	0	4,128,980				12,435,684
2030	8,306,705	0	0				8,306,705
2043	8,306,705	0	0				8,306,705
2050	8,306,705	0	0				8,306,705

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

New Magma Irrigation District Analysis and Summary -- 2001 through 2050
No Action Alternative

Table D-73

Year	Acres in Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization
2001	23,261	0	54,536	12,791	67,327
2004	23,261	0	51,289	16,038	67,327
2017	18,154	5,107	31,978	15,499	47,478
2030	18,154	0	17,643	22,940	40,584
2043	12,705	5,449	3,308	26,790	30,099
2050	12,705	0	0	51,837	51,837
		10,556			

	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres
2001	9,042	5,107	5,449	1,808	1,855		23,261
2004	9,042	5,107	5,449	1,808	1,855		23,261
2017	9,042	0	5,449	1,808	1,855		18,154
2030	9,042	0	5,449	1,808	1,855		18,154
2043	9,042	0	0	1,808	1,855		12,705
2050	9,042	0	0	1,808	1,855		12,705

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	8,306,705	1,876,823	4,128,980				14,312,507
2004	8,306,705	1,876,823	4,128,980				14,312,507
2017	8,306,705	0	4,128,980				12,435,684
2030	8,306,705	0	4,128,980				12,435,684
2043	8,306,705	0	0				8,306,705
2050	8,306,705	0	0				8,306,705

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

New Magma Irrigation District Analysis and Summary -- 2001 through 2050
Alternative 1

Table D-74

Year	Acres in Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization
2001	23,261	0	54,829	12,498	67,327
2004	23,261	0	51,651	15,675	67,327
2017	18,154	5,107	31,323	55,118	86,442
2030	12,705	5,449	17,282	34,555	51,836
2043	12,705	0	3,240	43,441	46,681
2050	12,705	0	0	51,836	51,836
		10,556			

	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres
2001	9,042	5,107	5,449	1,808	1,855		23,261
2004	9,042	5,107	5,449	1,808	1,855		23,261
2017	9,042	0	5,449	1,808	1,855		18,154
2030	9,042	0	0	1,808	1,855		12,705
2043	9,042	0	0	1,808	1,855		12,705
2050	9,042	0	0	1,808	1,855		12,705

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	8,306,705	1,876,823	4,128,980				14,312,507
2004	8,306,705	1,876,823	4,128,980				14,312,507
2017	8,306,705	0	4,128,980				12,435,684
2030	8,306,705	0	0				8,306,705
2043	8,306,705	0	0				8,306,705
2050	8,306,705	0	0				8,306,705

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

New Magma Irrigation District Analysis and Summary -- 2001 through 2050
Alternative 2

Table D-75

Year	Acres in Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization
2001	23,261	0	54,536	12,791	67,327
2004	23,261	0	51,289	16,038	67,327
2017	18,154	5,107	29,906	56,466	86,372
2030	12,705	5,449	16,500	35,336	51,836
2043	12,705	0	0	51,836	51,836
2050	12,705	0	0	51,836	51,836
		10,556			

	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres
2001	9,042	5,107	5,449	1,808	1,855		23,261
2004	9,042	5,107	5,449	1,808	1,855		23,261
2017	9,042	0	5,449	1,808	1,855		18,154
2030	9,042	0	0	1,808	1,855		12,705
2043	9,042	0	0	1,808	1,855		12,705
2050	9,042	0	0	1,808	1,855		12,705

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	8,306,705	1,876,823	4,128,980				14,312,507
2004	8,306,705	1,876,823	4,128,980				14,312,507
2017	8,306,705	0	4,128,980				12,435,684
2030	8,306,705	0	0				8,306,705
2043	8,306,705	0	0				8,306,705
2050	8,306,705	0	0				8,306,705

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

New Magma Irrigation District Analysis and Summary -- 2001 through 2050
Alternative 3a

Table D-76

Year	Acres in Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres
2001	23,261	0	54,237	13,089	67,327	9,042	5,107	5,449	1,808	1,855		23,261
2004	23,261	0	50,990	16,337	67,327	9,042	5,107	5,449	1,808	1,855		23,261
2017	18,154	5,107	33,302	54,388	87,691	9,042	0	5,449	1,808	1,855		18,154
2030	12,705	5,449	11,951	39,885	51,836	9,042	0	0	1,808	1,855		12,705
2043	12,705	0	3,396	48,440	51,836	9,042	0	0	1,808	1,855		12,705
2050	12,705	0	0	51,836	51,836	9,042	0	0	1,808	1,855		12,705
		10,556										

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	8,306,705	1,876,823	4,128,980				14,312,507
2004	8,306,705	1,876,823	4,128,980				14,312,507
2017	8,306,705	0	4,128,980				12,435,684
2030	8,306,705	0	0				8,306,705
2043	8,306,705	0	0				8,306,705
2050	8,306,705	0	0				8,306,705

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

New Magma Irrigation District Analysis and Summary – 2001 through 2050
Alternative 3b

Table D-77

Year	Acres in Production	Lost crop Acres	CAP water Demands	Pump Water Demands	Total water Utilization	Cotton Acres	Small grain Acres	Forage Acres	Vegetable Acres	Fruit & nut Acres	Other Acres	Total Acres
2001	23,261	0	50,928	16,399	67,327	9,042	5,107	5,449	1,808	1,855		23,261
2004	23,261	0	47,957	19,370	67,327	9,042	5,107	5,449	1,808	1,855		23,261
2017	18,154	5,107	29,906	57,784	87,691	9,042	0	5,449	1,808	1,855		18,154
2030	12,705	5,449	11,300	40,536	51,836	9,042	0	0	1,808	1,855		12,705
2043	12,705	0	0	51,836	51,836	9,042	0	0	1,808	1,855		12,705
2050	12,705	0	0	51,836	51,836	9,042	0	0	1,808	1,855		12,705
		10,556										

	Cotton Sales	Small grain Sales	Forage Sales	Vegetable Sales	Fruit &nut Sales	Other Sales	Total Sales
2001	8,306,705	1,876,823	4,128,980				14,312,507
2004	8,306,705	1,876,823	4,128,980				14,312,507
2017	8,306,705	0	4,128,980				12,435,684
2030	8,306,705	0	0				8,306,705
2043	8,306,705	0	0				8,306,705
2050	8,306,705	0	0				8,306,705

Note: Present acres in production are assumed to be the beginning acres in 2001 for analysis purposes
Present acres were calculated as the average of the years 1996-98

Water Cost Function Frontier – Groundwater Pumping versus CAP Water Costs – Irrigation Districts
Settlement Alternative **Table D-78**

	Year	CAP H20 Cost	Pump H20 Cost	Cost Frontier	Crop Change
Hohokam Irrigation Dist. (50 % Coolidge and 50 % Casa Grande)	2001	$24.97	$36.22	$26.08	
	2004	$27.71	$36.84	$28.88	
	2017	$35.00	$35.29	$35.20	
	2030	$35.00	$37.43	$36.99	
	2043	$35.00	$39.70	$39.40	
	2050		$41.12	$41.12	Grains out
San Carlos Irrigation (50 % Coolidge and 50 % Casa Grande)	2001	$24.54	$36.22	$28.39	
	2004	$28.34	$36.22	$30.94	
	2017	$27.15	$36.22	$30.14	
	2030	$35.00	$36.22	$35.00	
	2043	$35.00	$36.22	$35.00	
	2050		$36.22	$36.22	
Central Arizona Irr. Dist. (100 % Eloy)	2001	$28.26	$42.08	$31.75	
	2004	$33.62	$41.84	$36.07	
	2017	$35.00	$41.50	$38.29	
	2030	$35.00	$43.36	$41.04	
	2043	$35.00	$45.07	$43.74	Grains out
	2050		$46.45	$46.45	
Maricopa Stanfield (30 % Maricopa and 70 % Stanfield)	2001	$28.30	$30.93	$29.20	
	2004	$33.70	$30.06	$32.30	
	2017	$35.00	$28.55	$31.36	
	2030	$35.00	$29.79	$31.07	
	2043	$35.00	$32.00	$32.25	
	2050		$33.58	$33.58	
New Magma Irr. Dist.	2001	$25.65	$60.73	$32.62	
	2004	$28.90	$59.79	$36.01	
	2017	$35.00	$59.35	$49.82	Grains out
	2030	$35.00	$62.11	$52.01	Forage out
	2043	$35.00	$65.80	$61.86	
	2050		$68.03	$68.03	
Queen Creek Irr. Dist.	2001	$25.18	$60.73	$50.02	
	2004	$28.07	$63.27	$49.23	Forage out
	2017	$35.00	$64.92	$60.22	Grains out
	2030	$35.00	$66.56	$63.77	
	2043	$35.00	$64.46	$62.44	
	2050		$64.76	$64.76	Cotton out
Harquahala Valley Dist	2001	$29.00	$57.91	$46.73	
	2004	$35.00	$57.91	$48.38	Forage out
	2017	$35.00	$57.91	$50.48	
	2030	$35.00	$57.91	$53.73	
	2043	$35.00	$57.91	$56.47	
	2050		$57.91	$57.91	
Tonopah Irrigation Dist.	2001	$23.93	$57.91	$45.05	
	2004	$25.90	$57.91	$42.84	Forage out
	2017	$35.00	$57.91	$54.97	
	2030	$35.00	$57.91	$56.25	
	2043	$35.00	$57.91	$57.34	
	2050		$57.91	$57.91	
Roosevelt Irrigation Dist	2001	$24.54	$27.00	$24.54	
	2004	$28.34	$27.54	$27.54	
	2016	$27.15	$29.20	$27.15	
	2030	$35.00	$31.38	$31.38	
	2043	$35.00	$33.75	$33.75	
	2050		$35.44	$35.44	

Water Cost Function Frontier -- Groundwater Pumping versus CAP Water Costs -- Irrigation Districts
No Action Alternative **Table D-79**

	Year	CAP H20 Cost	Pump H20 Cost	Cost Frontier	Crop Change
Hohokam Irrigation Dist. (50 % Coolidge and 50 % Casa Grande)	2001	$23.71	$36.22	$27.63	
	2004	$25.56	$36.17	$29.03	
	2017	$35.00	$36.17	$36.01	
	2030	$35.00	$38.28	$38.03	
	2043	$35.00	$40.33	$40.25	
	2050		$41.52	$41.52	Grains out
San Carlos Irrigation (50 % Coolidge and 50 % Casa Grande)	2001	$24.28	$36.22	$28.22	
	2004	$28.16	$36.22	$30.82	
	2017	$23.72	$36.22	$27.85	
	2030	$35.00	$36.22	$35.00	
	2043	$35.00	$36.22	$35.00	
	2050		$36.22	$36.22	
Central Arizona Irr. Dist. (100 % Eloy)	2001	$28.37	$42.08	$30.14	
	2004	$33.83	$41.60	$35.20	
	2017	$35.00	$40.82	$38.08	
	2030	$35.00	$42.97	$40.90	
	2043	$35.00	$45.06	$44.38	Grains out
	2050		$46.47	$46.47	
Maricopa Stanfield (30 % Maricopa and 70 % Stanfield)	2001	$28.39	$30.93	$29.02	
	2004	$33.87	$29.80	$32.68	
	2017	$35.00	$27.77	$30.71	
	2030	$35.00	$29.25	$30.54	
	2043	$35.00	$31.74	$31.88	
	2050		$33.27	$33.27	
New Magma Irr. Dist.	2001	$25.93	$60.73	$30.32	
	2004	$29.42	$59.15	$34.12	
	2017	$33.32	$56.67	$40.30	
	2030	$29.55	$57.16	$35.35	
	2043	$22.85	$57.73	$31.29	
	2050		$60.78	$60.78	G&F out
Queen Creek Irr. Dist.	2001	$27.31	$60.73	$37.93	
	2004	$31.90	$59.83	$34.91	
	2017	$34.23	$56.21	$46.13	Forage out
	2030	$32.00	$53.65	$34.07	Forage in
	2043	$24.67	$53.92	$35.62	
	2050		$55.98	$55.98	G&F out
Harquahala Valley Dist	2001	$24.28	$57.91	$49.65	
	2004	$28.16	$57.91	$49.93	Forage out
	2017	$23.72	$57.91	$52.19	
	2030	$35.00	$57.91	$55.80	
	2043	$35.00	$57.91	$57.51	
	2050		$57.91	$57.91	
Tonopah Irrigation Dist.	2001	$26.08	$57.91	$36.97	
	2004	$29.69	$57.91	$35.14	
	2017	$33.44	$57.91	$49.30	Forage out
	2030	$29.82	$57.91	$47.20	
	2043	$22.99	$57.91	$45.46	
	2050		$57.91	$57.91	
Roosevelt Irrigation Dist	2001	$24.28	$27.00	$24.28	
	2004	$28.16	$27.54	$27.54	
	2017	$23.72	$29.20	$23.72	
	2030	$35.00	$31.38	$31.38	
	2043	$35.00	$33.75	$33.75	
	2050		$35.44	$35.44	

Water Cost Function Frontier – Groundwater Pumping versus CAP Water Costs – Irrigation Districts
Alternative 1 **Table D-80**

	Year	CAP H20 Cost	Pump H20 Cost	Cost Frontier	Crop Change
Hohokam Irrigation Dist. (50 % Coolidge and 50 % Casa Grande)	2001	$23.72	$36.22	$27.62	
	2004	$25.58	$36.17	$29.03	
	2017	$35.00	$36.16	$36.00	
	2030	$35.00	$38.27	$38.03	
	2043	$35.00	$40.31	$40.24	
	2050		$41.51	$41.51	Grains out
San Carlos Irrigation (50 % Coolidge and 50 % Casa Grande)	2001	$24.31	$36.22	$28.24	
	2004	$28.21	$36.22	$30.85	
	2017	$24.05	$36.22	$28.07	
	2030	$35.00	$36.22	$35.00	
	2043	$35.00	$36.22	$35.00	
	2050		$36.22	$36.22	
Central Arizona Irr. Dist. (100 % Eloy)	2001	$28.37	$42.08	$30.09	
	2004	$33.83	$41.59	$35.17	
	2017	$35.00	$40.79	$38.12	
	2030	$35.00	$42.97	$40.95	
	2043	$35.00	$45.06	$44.40	Grains out
	2050		$46.47	$46.47	
Maricopa Stanfield (30 % Maricopa and 70 % Stanfield)	2001	$28.39	$30.93	$29.02	
	2004	$33.88	$29.79	$32.71	
	2017	$35.00	$27.73	$30.62	
	2030	$35.00	$29.24	$30.50	
	2043	$35.00	$31.73	$31.86	
	2050		$33.25	$33.25	
New Magma Irr. Dist.	2001	$25.94	$60.73	$30.23	
	2004	$29.44	$59.12	$34.03	
	2017	$34.46	$57.07	$48.67	Grains out
	2030	$35.00	$59.31	$51.21	
	2043	$26.40	$61.97	$53.58	Forage out
	2050		$64.14	$64.14	
Queen Creek Irr. Dist.	2001	$27.32	$60.73	$37.84	
	2004	$31.92	$59.79	$34.78	
	2017	$34.76	$55.73	$35.32	
	2030	$35.00	$54.27	$44.09	Forage out
	2043	$29.33	$55.99	$49.57	
	2050		$57.87	$57.87	
Harquahala Valley Dist	2001	$29.00	$57.91	$50.77	
	2004	$35.00	$57.91	$51.72	Forage out
	2017	$35.00	$57.91	$54.16	
	2030	$35.00	$57.91	$55.84	
	2043	$35.00	$57.91	$57.52	
	2050		$57.91	$57.91	
Tonopah Irrigation Dist.	2001	$26.09	$57.91	$36.90	
	2004	$29.72	$57.91	$35.06	
	2017	$34.50	$57.91	$50.48	Forage out
	2030	$35.00	$57.91	$54.04	
	2043	$26.68	$57.91	$54.24	
	2050		$57.91	$57.91	
Roosevelt Irrigation Dist	2001	$24.31	$27.00	$24.31	
	2004	$28.21	$27.54	$27.54	
	2017	$24.05	$29.20	$24.05	
	2030	$35.00	$31.38	$31.38	
	2043	$35.00	$33.75	$33.75	
	2050		$35.44	$35.44	

Water Cost Function Frontier – Groundwater Pumping versus CAP Water Costs – Irrigation Districts
Alternative 2 **Table D-81**

	Year	CAP H20 Cost	Pump H20 Cost	Cost Frontier	Crop Change
Hohokam Irrigation Dist. (50 % Coolidge and 50 % Casa Grande)	2001	$23.71	$36.22	$27.63	
	2004	$25.56	$36.17	$29.03	
	2017	$35.00	$36.18	$36.03	
	2030	$35.00	$38.31	$38.08	
	2043		$40.45	$40.45	
	2050		$41.68	$41.68	Grains out
San Carlos Irrigation (50 % Coolidge and 50 % Casa Grande)	2001	$24.28	$36.53	$28.32	
	2004	$28.16	$35.76	$30.67	
	2017	$23.28	$36.83	$27.75	
	2030	$35.00	$37.96	$35.00	
	2043	$0.00	$38.67	$38.67	
	2050		$0.00	$0.00	
Central Arizona Irr. Dist. (100 % Eloy)	2001	$28.37	$42.08	$30.14	
	2004	$33.83	$41.60	$35.20	
	2017	$35.00	$40.83	$38.27	
	2030	$35.00	$43.07	$41.11	
	2043	$0.00	$45.39	$45.39	Grains out
	2050		$46.79	$46.79	
Maricopa Stanfield (30 % Maricopa and 70 % Stanfield)	2001	$28.39	$30.93	$29.02	
	2004	$33.87	$29.80	$32.68	
	2017	$35.00	$27.78	$30.52	
	2030	$35.00	$29.35	$30.53	
	2043	$0.00	$32.11	$32.11	
	2050		$33.59	$33.59	
New Magma Irr. Dist.	2001	$25.93	$60.73	$30.32	
	2004	$29.42	$59.15	$34.12	
	2017	$34.41	$57.50	$49.28	Grains out
	2030	$35.00	$63.32	$54.31	Forage out
	2043	$0.00	$66.96	$66.96	
	2050		$68.67	$68.67	
Queen Creek Irr. Dist.	2001	$27.31	$60.73	$37.93	
	2004	$31.90	$60.17	$41.79	
	2017	$34.74	$59.49	$49.27	Forage out
	2030	$35.00	$61.32	$55.43	
	2043	$0.00	$63.08	$63.08	Grains out
	2050		$63.60	$63.60	
Harquahala Valley Dist	2001	$29.00	$57.91	$50.81	
	2004	$35.00	$57.91	$51.76	Forage out
	2017	$35.00	$57.91	$54.33	
	2030	$35.00	$57.91	$55.93	
	2043	$0.00	$57.91	$57.91	
	2050		$57.91	$57.91	
Tonopah Irrigation Dist.	2001	$26.08	$57.91	$36.97	
	2004	$29.69	$57.91	$35.14	
	2017	$34.45	$57.91	$50.78	Forage out
	2030	$35.00	$57.91	$54.22	
	2043	$0.00	$57.91	$57.91	
	2050		$57.91	$57.91	
Roosevelt Irrigation Dist	2001	$24.28	$27.00	$24.28	
	2004	$28.16	$27.54	$27.54	
	2017	$23.28	$29.20	$23.28	
	2030	$35.00	$31.38	$31.38	
	2043	$0.00	$33.75	$33.75	
	2050		$35.44	$35.44	

Water Cost Function Frontier -- Groundwater Pumping versus CAP Water Costs -- Irrigation Districts
Alternative 3a **Table D-82**

	Year	CAP H20 Cost	Pump H20 Cost	Cost Frontier	Crop Change
Hohokam Irrigation Dist.	2001	$23.59	$36.22	$27.74	
(50 % Coolidge and	2004	$25.33	$36.27	$29.08	
50 % Casa Grande)	2017	$35.00	$36.39	$36.21	
	2030	$35.00	$38.71	$38.57	
	2043		$40.85	$40.85	
	2050		$42.05	$42.05	Grains out
San Carlos Irrigation	2001	$23.59	$36.22	$27.76	
(50 % Coolidge and	2004	$25.33	$36.22	$28.93	
50 % Casa Grande)	2017	$35.00	$36.22	$35.40	
	2030	$35.00	$36.22	$35.00	
	2043		$36.22	$36.22	
	2050		$36.22	$36.22	
Central Arizona Irr. Dist.	2001	$28.41	$42.08	$29.22	
(100 % Eloy)	2004	$33.92	$41.46	$34.72	
	2017	$35.00	$40.35	$37.33	
	2030	$35.00	$42.46	$40.59	
	2043	$35.00	$44.45	$42.81	Grains out
	2050		$45.96	$45.96	
Maricopa Stanfield	2001	$28.43	$30.93	$28.91	
(30 % Maricopa and	2004	$33.96	$29.62	$32.95	
70 % Stanfield)	2017	$35.00	$27.19	$30.99	
	2030	$35.00	$28.86	$30.18	
	2043	$35.00	$31.00	$31.43	
	2050		$32.62	$32.62	
New Magma Irr. Dist.	2001	$25.92	$60.73	$30.41	
	2004	$29.40	$59.18	$34.20	
	2017	$35.00	$57.63	$49.04	Grains out
	2030	$35.00	$61.62	$55.48	Forage out
	2043		$65.51	$61.22	
	2050		$67.56	$63.13	
Queen Creek Irr. Dist.	2001	$27.22	$60.73	$39.09	
	2004	$31.72	$60.49	$42.83	
	2017	$35.00	$60.43	$50.12	Forage out
	2030	$35.00	$63.11	$59.85	Grains out
	2043	$35.00	$62.60	$62.60	
	2050		$63.22	$63.22	
Harquahala Valley Dist	2001	$29.00	$57.91	$51.29	
	2004	$35.00	$57.91	$52.21	Forage out
	2017	$35.00	$57.91	$54.33	
	2030	$35.00	$57.91	$56.88	
	2043		$57.91	$57.91	
	2050		$57.91	$57.91	
Tonopah Irrigation Dist.	2001	$25.95	$57.91	$37.78	
	2004	$29.45	$57.91	$40.69	
	2017	$35.00	$57.91	$51.21	Forage out
	2030	$35.00	$57.91	$55.99	
	2043		$57.91	$57.91	
	2050		$57.91	$57.91	
Roosevelt Irrigation Dist	2001	$23.77	$27.00	$23.77	
	2004	$27.68	$27.54	$27.54	
	2017	$20.21	$29.20	$20.21	
	2030	$35.00	$31.38	$31.38	
	2043		$33.75	$33.75	
	2050		$35.44	$35.44	

Water Cost Function Frontier -- Groundwater Pumping versus CAP Water Costs -- Irrigation Districts
Alternative 3b **Table D-83**

	Year	CAP H20 Cost	Pump H20 Cost	Cost Frontier	Crop Change
Hohokam Irrigation Dist.	2001	$23.59	$36.22	$27.74	
(50 % Coolidge and	2004	$25.36	$36.20	$29.06	
50 % Casa Grande)	2017	$35.00	$36.24	$36.08	
	2030	$35.00	$38.52	$38.35	
	2043		$40.72	$40.72	
	2050		$41.96	$41.96	Grains out
San Carlos Irrigation	2001	$23.59	$36.20	$27.75	
(50 % Coolidge and	2004	$25.36	$36.20	$28.93	
50 % Casa Grande)	2017	$35.00	$37.25	$35.74	
	2030	$35.00	$38.28	$35.00	
	2043		$38.87	$38.87	
	2050		$0.00	$0.00	
Central Arizona Irr. Dist.	2001	$28.32	$42.08	$30.84	
(100 % Eloy)	2004	$33.75	$41.63	$35.53	
	2017	$35.00	$40.88	$38.30	
	2030	$35.00	$43.31	$41.93	Grains out
	2043	$35.00	$45.49	$45.49	
	2050		$46.81	$46.81	
Maricopa Stanfield	2001	$28.35	$30.93	$29.11	
(30 % Maricopa and	2004	$33.80	$29.82	$32.47	
70 % Stanfield)	2017	$35.00	$27.77	$30.52	
	2030	$35.00	$29.61	$30.38	
	2043		$32.05	$32.05	
	2050		$33.53	$33.53	
New Magma Irr. Dist.	2001	$25.80	$60.73	$31.45	
	2004	$29.19	$59.42	$34.97	
	2017	$35.00	$58.27	$50.33	Grains out
	2030	$35.00	$62.08	$56.18	Forage out
	2043		$66.31	$66.31	
	2050		$68.14	$68.14	
Queen Creek Irr. Dist.	2001	$27.22	$60.73	$39.06	
	2004	$31.74	$60.49	$42.74	
	2017	$35.00	$60.41	$50.11	Forage out
	2030	$35.00	$62.66	$58.42	
	2043		$62.41	$62.41	Grains out
	2050		$63.13	$63.13	
Harquahala Valley Dist	2001	$29.00	$57.91	$51.28	
	2004	$35.00	$57.91	$52.16	Forage out
	2017	$35.00	$57.91	$54.33	
	2030	$35.00	$57.91	$56.56	
	2043		$57.91	$57.91	
	2050		$57.91	$57.91	
Tonopah Irrigation Dist.	2001	$25.95	$57.91	$37.77	
	2004	$29.47	$57.91	$35.88	
	2017	$35.00	$57.91	$51.21	Forage out
	2030	$35.00	$57.91	$55.38	
	2043		$57.91	$57.91	
	2050		$57.91	$57.91	
Roosevelt Irrigation Dist	2001	$23.78	$27.00	$23.78	
	2004	$27.73	$27.54	$27.54	
	2017	$20.77	$29.20	$20.77	
	2030	$35.00	$31.38	$31.38	
	2043		$33.75	$33.75	
	2050		$35.44	$35.44	

Impacts on Output, Employment, and Income of Construction of Indian Distribution Systems -- Anticipated Federal Outlays

Table D-84

Construction Expenditure Impacts (dollars per year)

Year	Settlement Alternative		No Action Alternative		All Other Alternatives		Comparison of Settlement with No Acton Alternative	
	Direct	Total	Direct	Total	Direct	Total	Direct	Total
2001	$54,400,000	$87,600,000	$29,400,000	$47,300,000	$29,400,000	$47,300,000	$25,000,000	$40,300,000
2004	$71,600,000	$115,200,000	$46,600,000	$74,900,000	$46,600,000	$74,900,000	$25,000,000	$40,300,000
10-year totals	$585,300,000	$942,200,000	$385,300,000	$620,200,000	$385,300,000	$620,200,000	$200,000,000	$322,000,000

Employment Impacts from Construction (number of jobs annually)

Year	Settlement Alternative		No Action Alternative		All Other Alternatives		Comparison of Settlement with No Acton Alternative	
	Direct	Total	Direct	Total	Direct	Total	Direct	Total
2001	475	914	257	494	257	494	218	420
2004	625	1,203	406	782	406	782	219	421
10-year totals	5,114	9,836	3,367	6,475	3,367	6,475	1,747	3,361

Income Impacts from Construction (dollars per year)

Year	Settlement Alternative		No Action Alternative		All Other Alternatives		Comparison of Settlement with No Acton Alternative	
	Direct	Total	Direct	Total	Direct	Total	Direct	Total
2001	$19,200,000	$37,200,000	$10,370,000	$20,100,000	$10,370,000	$20,100,000	$8,830,000	$17,100,000
2004	$25,200,000	$48,900,000	$16,380,000	$31,800,000	$16,380,000	$31,800,000	$8,820,000	$17,100,000
10-year totals	$206,100,000	$400,100,000	$135,700,000	$263,400,000	$135,700,000	$263,400,000	$70,400,000	$136,700,000

Note: The Federal expenditures for Indian distribution systems are currently on-going and will continue through about 2012. Associated with the GRIC settlement is an additional total of $200 million, disbursed at the rate of $25 million annually, for 8 years from 2001 to 2008, occurring only with settlement.

Summary of Impacts of Agricultural Output Changes -- Settlement Alternative

Table D-85

Year	Three County Area				Pinal County			
	Total Direct Impacts	Non-Indian Impacts	Indian Impacts	Total Secondary Impacts	Total Direct Impacts	Non-Indian Impacts	Indian Impacts	Total Secondary Impacts
2001	$1,185,065	$0	$1,185,065	$571,867	$0	$0	$0	$0
2004	($2,533,249)	($4,422,671)	$1,889,423	($642,625)	$0	$0	$0	$0
2017	$46,543,817	($7,915,234)	$54,459,050	$21,312,549	$46,818,368	($1,876,823)	$48,695,191	$19,703,383
2030	$105,897,460	($12,044,213)	$117,941,673	$48,223,143	$103,401,249	($6,005,802)	$109,407,051	$43,699,463
2043	$97,510,007	($20,431,666)	$117,941,673	$45,006,512	$95,013,796	($14,393,255)	$109,407,051	$41,139,128
2050	$89,206,724	($28,734,949)	$117,941,673	$41,201,637	$91,843,373	($17,563,678)	$109,407,051	$39,541,332
50 Year Total Estimate	$4,014,774,373	($772,361,055)	$4,787,135,429	$1,843,644,467	$3,979,364,235	($434,224,835)	$4,413,589,070	$1,699,372,398

Comparison of Impacts of Agricultural Output Changes -- Settlement Versus No Action

Table D-86

Year	Three County Area				Pinal County			
	Total Direct Impacts	Non-Indian Impacts	Indian Impacts	Total Secondary Impacts	Total Direct Impacts	Non-Indian Impacts	Indian Impacts	Total Secondary Impacts
2001	$0	$0	$0	$0	$0	$0	$0	$0
2004	($2,862,320)	($2,862,320)	$0	($955,004)	$0	$0	$0	$0
2017	($3,492,563)	($3,492,563)	$0	($1,339,416)	($1,876,823)	($1,876,823)	$0	$0
2030	$22,359,264	($10,061,477)	$32,420,741	$10,824,496	$23,644,176	($6,005,802)	$29,649,978	$10,490,745
2043	$22,359,264	($10,061,477)	$32,420,741	$10,824,497	$23,644,176	($6,005,802)	$29,649,978	$10,490,742
2050	$27,287,881	($5,132,860)	$32,420,741	$11,766,602	$29,649,978	$0	$29,649,978	$11,714,579
50 Year Total Estimate	$771,505,468	($363,220,460)	$1,134,725,927	$367,456,217	$853,070,706	($184,678,531)	$1,037,749,237	$376,966,708

Summary of Employment Impacts -- Settlement Alternative

Table D-87

(values are number of jobs)

Year	Three County			Pinal County		
	Direct Impacts	Secondary Impacts	Total Impacts	Direct Impacts	Secondary Impacts	Total Impacts
2001	11.7	8.1	19.8	0	0	0
2004	-138.7	-8.2	-146.9	0	0	0
2017	400	304	704.0	317.4	396.4	713.8
2030	950.2	684.3	1634.5	635.4	878.1	1,513.5
2043	795	646.1	1,441.1	528.5	842.1	1,370.6
2050	707.4	594.9	1,302.3	488.0	828.6	1,316.6
50 Year Total Estimate	33,681	26,362	60,043	23,479	34,626	58,105

Summary of Income Impacts -- Settlement Alternative

Table D-89

Year	Three County			Pinal County		
	Direct Impacts	Secondary Impacts	Total Impacts	Direct Impacts	Secondary Impacts	Total Impacts
2001	642,601	319,157	961,758	0	0	0
2004	(2,004,336)	(358,697)	(2,363,033)	0	0	0
2017	28,576,665	11,910,854	40,487,519	17,658,482	10,528,492	28,186,974
2030	64,975,701	26,950,457	91,926,158	38,858,625	23,354,396	62,213,021
2043	59,824,857	25,153,922	84,978,779	35,696,779	21,962,282	57,659,061
2050	55,215,557	23,070,301	78,285,858	34,501,615	21,436,065	55,937,680
50 Year Total Estimate	2,466,014,383	1,030,723,949	3,496,738,332	1,495,993,581	910,301,634	2,406,295,215

Comparison of Income Impacts -- Settlement Versus No Action

Table D-90

Year	Three County			Pinal County		
	Direct Impacts	Secondary Impacts	Total Impacts	Direct Impacts	Secondary Impacts	Total Impacts
2001	0	0	0	0	0	0
2004	(2,012,199)	(533,024)	(2,545,223)	0	0	0
2017	(2,144,828)	(747,643)	(2,892,471)	0	0	0
2030	13,366,154	6,051,874	19,418,028	8,742,676	5,600,522	14,343,198
2043	13,366,154	6,050,815	19,416,969	8,742,676	5,600,523	14,343,199
2050	17,466,597	6,616,790	24,083,387	11,215,869	6,599,604	17,815,473
50 Year Total Estimate	468,844,401	205,750,363	674,594,764	325,779,204	204,010,939	529,790,143