Appendix I

IEUA Water Supply Reliability Tables Detail

IEUA 2005 UWMP
Section 2
Step Four: Supply Reliability (Page 15 of UWMP Guidelines)

	cells are for input
	cells are calculated
	cells to be hidden

Supply Reliability - Percentage of Normal Water Year Basis (modified Table 8)

	Normal Water Year	Single Dry Water Year	Multiple Dry Water Years[2]			
			Year 1	Year 2	Year 3	Year 4[3]
Groundwater	100%	115%	116%	115%	115%	
Recycled Water	100%	100%	100%	105%	110%	
Surface Water[1]	100%	31%	49%	84%	77%	
Imported Water	100%	62%	60%	61%	62%	

Notes:

(1) Estimated decrease in surface water availability per Prado region 1970-2003 rainfall data. Surface water does not constitute a significant portion of the water supply.

(2) Chino Basin Dry-Year Yield (DYY) Program facilities provide for 100,000 AF of storage and 33,000 AFY of additional groundwater production for use in-lieu of Imported Water during dry years. The DYY Program is in effect during dry years between 2008 and 2025. Percentages reflect decrease in imported water and associated increase in groundwater production. From *Report on Metropolitan's Water Supplies, A Blueprint for Water Reliability*, March 25, 2003, Metropolitan has documented the capability to reliably meet 100 percent of projected supplemental water demands through 2030. Per the Fiscal Year 2004/2005 Chino Basin Watermaster Assessment Package, agencies have approximately 150,000 AF in storage.

(3) Metropolitan's *Report on Metropolitan's Water Supplies, A Blueprint for Water Reliability*, March 25, 2003, provides information for three consecutive dry years.

Basis of Water Year Data (Table 9)

Water Year Type	Base Year(s)	Hist. Sequence
Normal Water Year	FY 2004	1922 - 2004[2]
Single-Dry Water Year[1]	1977[2]	
Multiple Dry-Water Years[1]	1990-1992[2]	

Notes:

(1) Rainfall data from Prado region (1970-2003) used as basis for surface water reliability.

(2) From *Report on Metropolitan's Water Supplies, A Blueprint for Water Reliability*, March 25, 2003, page 10.

Describe the Factors Resulting in Inconsistency of Supply (Table 10)

Name of Supply	Legal	Environmental	Water Quality	Climatic
Imported Water	Table A Entitlement	Total Interruption Due to Natural Disaster	Bromate, TOCs, DBP Formation	El Nino, Droughts
Groundwater	Adjudicated Basin	Subsidence	Nitrate, Perchlorate, DBCP, Arsenic	
Recycled Water	Compliance with Santa Ana River Judgment		DHS and Regional Board Permit	
Surface Water	Downstream Water Rights	Fires, Floods, Droughts	Turbidity spikes	Droughts

DYY Program Shift Obligations by Agency

Agency	Shift Obligation
City of Chino	1,159
City of Chino Hills	1,448
CVWD	11,353
Fontana Water Company[1]	0
JCSD[2]	2,000
MVWD	3,963
City of Ontario	8,076
City of Pomona[2]	2,000
City of Upland	3,001
Total	**33,000**

Notes:

(1) Fontana Water Company is no longer a participant in the DYY Program. CVWD has picked up Fontana's share of the DYY Shift Obligation.

(2) Not within IEUA's service area. San Antonio Water Company is not a participant of the DYY Program.

IEUA 2005 UWMP
Section 7
Step One: Projected Normal Water Year Supply and Demand (Page 71 of UWMP Guidelines)

Projected Normal Water Year Supply - AF/Y (Table 40)

(hide)

Supply	'03/'04	2005	2006	2007	2008	2009	2010	2015	2020	2025
Groundwater[1]	**149,919**	**134,663**	**143,304**	**151,946**	**160,587**	**169,229**	**177,870**	**191,479**	**205,704**	**212,854**
City of Chino	9,083	11,300	11,820	12,340	12,860	13,380	13,900	17,100	18,200	18,200
City of Chino Hills	15,475	6,250	6,680	7,110	7,540	7,970	8,400	8,400	8,400	8,400
Cucamonga Valley Water District	16,673	19,200	22,040	24,880	27,720	30,560	33,400	39,400	42,400	42,400
Fontana Water Company	44,322	42,400	42,500	42,600	42,700	42,800	42,900	42,900	42,900	42,900
Monte Vista Water District	13,048	16,500	19,220	21,940	24,660	27,380	30,100	30,100	33,000	33,000
City of Ontario	29,214	23,513	25,524	27,536	29,547	31,559	33,570	37,179	44,204	51,254
San Antonio Water Company	8,524	7,700	7,720	7,740	7,760	7,780	7,800	7,900	8,000	8,100
City of Upland	13,580	7,800	7,800	7,800	7,800	7,800	7,800	8,500	8,600	8,600
Recycled Water	**1,058**	**7,270**	**13,616**	**19,962**	**26,308**	**32,654**	**39,000**	**49,000**	**58,000**	**69,000**
City of Chino	0	3,400	3,972	4,544	5,115	5,687	6,259	7,935	10,620	11,832
City of Chino Hills	1,058	800	1,429	2,058	2,688	3,317	3,946	5,038	4,773	5,319
Cucamonga Valley Water District	0	1,270	3,808	6,346	8,884	11,422	13,960	20,028	22,921	28,717
Fontana Water Company	0	0	707	1,415	2,122	2,830	3,537	4,282	4,675	5,715
Monte Vista Water District	0	0	108	217	325	434	542	630	835	931
City of Ontario	0	1,800	3,591	5,382	7,174	8,965	10,756	11,087	14,176	16,486
San Antonio Water Company	0	0	0	0	0	0	0	0	0	0
City of Upland	0	0	0	0	0	0	0	0	0	0
Surface Water	**10,745**	**18,700**	**18,700**	**18,700**	**18,700**	**18,700**	**18,700**	**18,700**	**18,700**	**18,700**
City of Chino	0	0	0	0	0	0	0	0	0	0
City of Chino Hills	0	0	0	0	0	0	0	0	0	0
Cucamonga Valley Water District	7,785	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Fontana Water Company	0	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Monte Vista Water District	0	0	0	0	0	0	0	0	0	0
City of Ontario	0	0	0	0	0	0	0	0	0	0
San Antonio Water Company	2,960	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
City of Upland	0	5,200	5,200	5,200	5,200	5,200	5,200	5,200	5,200	5,200
Imported Water	**78,959**	**60,200**	**65,720**	**65,240**	**65,760**	**67,280**	**68,800**	**74,300**	**80,600**	**82,500**
City of Chino	6,866	4,300	4,520	4,740	4,960	5,180	5,400	5,400	5,400	5,400
City of Chino Hills	1,869	400	700	1,000	1,300	1,600	1,900	2,400	2,800	3,300
Cucamonga Valley Water District	36,457	28,000	32,000	30,000	29,000	29,000	29,000	29,000	29,000	29,000
Fontana Water Company	0	0	460	920	1,380	1,840	2,300	6,500	11,600	13,000
Monte Vista Water District	9,515	6,300	6,400	6,500	6,600	6,700	6,800	6,800	7,600	7,500
City of Ontario	15,938	16,900	17,340	17,780	18,220	18,660	19,100	19,900	19,900	20,000
San Antonio Water Company	0	0	0	0	0	0	0	0	0	0
City of Upland	8,314	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300
% of Normal Year[2]										
Groundwater		**90%**					**119%**	**128%**	**137%**	**142%**
Recycled Water		**687%**					**3686%**	**4631%**	**5482%**	**6522%**
Surface Water		**174%**					**174%**	**174%**	**174%**	**174%**
Imported Water		**76%**					**87%**	**94%**	**102%**	**104%**
Total	**03/'04**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2015**	**2020**	**2025**
City of Chino	15,949	19,000	20,312	21,624	22,935	24,247	25,559	30,435	34,220	35,432
City of Chino Hills	18,402	7,450	8,809	10,168	11,528	12,887	14,246	15,838	15,973	17,019
Cucamonga Valley Water District	60,915	51,470	60,848	64,226	68,604	73,982	79,360	91,428	97,321	103,117
Fontana Water Company	44,322	49,400	50,667	51,935	53,202	54,470	55,737	60,682	66,175	68,615
Monte Vista Water District	22,563	22,800	25,728	28,657	31,585	34,514	37,442	37,530	41,435	41,431
City of Ontario	45,152	42,213	46,456	50,698	54,941	59,183	63,426	68,166	78,280	87,740
San Antonio Water Company	11,484	11,200	11,220	11,240	11,260	11,280	11,300	11,400	11,500	11,600

City of Upland	21,894	17,300	17,300	17,300	17,300	17,300	17,300	18,000	18,100	18,100

Notes:

(1) Includes groundwater from Chino Basin (inc. CDA supply) and other basins.

(2) From Table 9. Base year for Normal Water Year.

(3) Assumes zero conservation.

Projected Normal Water Year Demand - AF/Y (Table 41)

	03/'04	2005	2006	2007	2008	2009	2010	2015	2020	2025
Demand	**240,681**	**214,189**	**223,871**	**233,553**	**243,236**	**252,918**	**262,600**	**287,000**	**314,900**	**334,500**
City of Chino	15,949	18,400	19,100	19,800	20,500	21,200	21,900	26,200	29,900	30,100
City of Chino Hills	18,402	16,726	17,921	19,116	20,310	21,505	22,700	24,700	25,400	26,400
Cucamonga Valley Water District	60,915	51,500	54,280	57,060	59,840	62,620	65,400	72,500	79,500	86,000
Fontana Water Company	44,322	46,600	47,680	48,760	49,840	50,920	52,000	57,000	62,700	66,000
Monte Vista Water District	22,563	12,463	12,610	12,758	12,905	13,053	13,200	14,100	14,800	15,500
City of Ontario	45,152	43,000	46,660	50,320	53,980	57,640	61,300	66,600	76,600	84,300
San Antonio Water Company	11,484	3,500	3,520	3,540	3,560	3,580	3,600	3,400	3,400	3,500
City of Upland	21,894	22,000	22,100	22,200	22,300	22,400	22,500	22,500	22,600	22,700
% of Year 2005							**123%**	**134%**	**147%**	**156%**
Supply/Demand Balance Check										
City of Chino	0	600	1,212	1,824	2,435	3,047	3,659	4,235	4,320	5,332
City of Chino Hills	0	(9,276)	(9,112)	(8,947)	(8,783)	(8,618)	(8,454)	(8,862)	(9,427)	(9,381)
Cucamonga Valley Water District	0	(30)	6,568	7,166	8,764	11,362	13,960	18,928	17,821	17,117
Fontana Water Company	0	2,800	2,987	3,175	3,362	3,550	3,737	3,682	3,475	2,615
Monte Vista Water District	0	10,337	13,118	15,899	18,680	21,461	24,242	23,430	26,635	25,931
City of Ontario	0	(787)	(204)	378	961	1,543	2,126	1,566	1,680	3,440
San Antonio Water Company	0	7,700	7,700	7,700	7,700	7,700	7,700	8,000	8,100	8,100
City of Upland	0	(4,700)	(4,800)	(4,900)	(5,000)	(5,100)	(5,200)	(4,500)	(4,500)	(4,600)

Projected Normal Water Year Supply and Demand Comparison - AF/Y (Table 42)

		2005	2006	2007	2008	2009	2010	2015	2020	2025
Supply Totals							**304,370**	**333,479**	**363,004**	**383,054**
Demand Totals							**262,600**	**287,000**	**314,900**	**334,500**
Difference (supply minus demand)							**41,770**	**46,479**	**48,104**	**48,554**
Difference as % of Supply							**14%**	**14%**	**13%**	**13%**
Difference as % of Demand							**16%**	**16%**	**15%**	**15%**

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Section 7
Step Two: Projected Single-Dry-Year Supply and Demand Comparison (Page 73 of UWMP Guidelines)

Projected Single Dry Year Water Supply - AF/Y (Table 43)

Supply	2010	2015	2020	2025
Groundwater	**208,133**	**221,733**	**235,950**	**243,091**
City of Chino	15,059	18,259	19,359	19,359
City of Chino Hills	9,848	9,848	9,848	9,848
Cucamonga Valley Water District	44,753	50,753	53,753	53,753
Fontana Water Company	42,900	42,900	42,900	42,900
Monte Vista Water District	34,063	34,063	36,963	36,963
City of Ontario	41,646	45,255	52,280	59,330
San Antonio Water Company	9,063	9,154	9,246	9,337
City of Upland	10,801	11,501	11,601	11,601
Recycled Water	**39,000**	**49,000**	**58,000**	**69,000**
City of Chino	6,259	7,935	10,620	11,832
City of Chino Hills	3,946	5,038	4,773	5,319
Cucamonga Valley Water District	13,960	20,028	22,921	28,717
Fontana Water Company	3,537	4,282	4,675	5,715
Monte Vista Water District	542	630	835	931
City of Ontario	10,756	11,087	14,176	16,486
San Antonio Water Company	0	0	0	0
City of Upland	0	0	0	0
Surface Water	**5,817**	**5,817**	**5,817**	**5,817**
City of Chino	0	0	0	0
City of Chino Hills	0	0	0	0
Cucamonga Valley Water District	933	933	933	933
Fontana Water Company	2,178	2,178	2,178	2,178
Monte Vista Water District	0	0	0	0
City of Ontario	0	0	0	0
San Antonio Water Company	1,089	1,089	1,089	1,089
City of Upland	1,618	1,618	1,618	1,618
Imported Water	**39,800**	**45,300**	**51,600**	**53,500**
City of Chino	4,241	4,241	4,241	4,241
City of Chino Hills	452	952	1,352	1,852
Cucamonga Valley Water District	17,647	17,647	17,647	17,647
Fontana Water Company	2,300	6,500	11,600	13,000
Monte Vista Water District	2,837	2,837	3,637	3,537
City of Ontario	11,024	11,824	11,824	11,924
San Antonio Water Company	0	0	0	0
City of Upland	1,299	1,299	1,299	1,299
% of Projected Normal(1)				
Groundwater	**117%**	**116%**	**115%**	**114%**
Recycled Water	**100%**	**100%**	**100%**	**100%**
Surface Water	**31%**	**31%**	**31%**	**31%**
Imported Water	**58%**	**61%**	**64%**	**65%**
Total				
City of Chino	25,559	30,435	34,220	35,432
City of Chino Hills	14,246	15,838	15,973	17,019
Cucamonga Valley Water District	77,293	89,361	95,254	101,050
Fontana Water Company	50,915	55,860	61,353	63,793
Monte Vista Water District	37,442	37,530	41,435	41,431
City of Ontario	63,426	68,166	78,280	87,740
San Antonio Water Company	10,152	10,243	10,335	10,426
City of Upland	13,718	14,418	14,518	14,518

Notes:

(1) Projected normal use from Table 40.

Projected Single Dry Year Water Demand - AF/Y (Table 44)

	2010	2015	2020	2025
Demand	**262,600**	**287,000**	**314,900**	**334,500**
City of Chino	21,900	26,200	29,900	30,100
City of Chino Hills	22,700	24,700	25,400	26,400
Cucamonga Valley Water District	65,400	72,500	79,500	86,000
Fontana Water Company	52,000	57,000	62,700	66,000
Monte Vista Water District	13,200	14,100	14,800	15,500
City of Ontario	61,300	66,600	76,600	84,300
San Antonio Water Company	3,600	3,400	3,400	3,500
City of Upland	22,500	22,500	22,600	22,700
Conservation(1)	**(26,260)**	**(28,700)**	**(31,490)**	**(33,450)**
Adjusted Demand	**236,340**	**258,300**	**283,410**	**301,050**
% of Projected Normal(2)	**90%**	**90%**	**90%**	**90%**
Supply/Demand Balance Check				
City of Chino	5,849	6,855	7,310	8,342
City of Chino Hills	(6,184)	(6,392)	(6,887)	(6,741)
Cucamonga Valley Water District	18,433	24,111	23,704	23,650
Fontana Water Company	4,115	4,560	4,923	4,393
Monte Vista Water District	25,562	24,840	28,115	27,481
City of Ontario	8,256	8,226	9,340	11,870
San Antonio Water Company	6,912	7,183	7,275	7,276
City of Upland	(6,532)	(5,832)	(5,822)	(5,912)

Notes:

(1) Assumed 10% conservation of demand for single dry year. Refer to Chapter 4, Water Conservation Program.

(2) Projected normal use from Table 41.

Projected Single Dry Year Water Year Supply and Demand Comparison - AF/Y (Table 45)

	2010	2015	2020	2025
Supply Totals	292,750	321,850	351,367	371,408
Demand Totals	236,340	258,300	283,410	301,050
Difference (supply minus demand)	56,410	63,550	67,957	70,358
Difference as % of Supply	19%	20%	19%	19%
Difference as % of Demand	24%	25%	24%	23%

IEUA 2005 UWMP
Section 7 - Water Service Reliability 2006-2010
Step Three: Projected Multiple-Dry-Year Supply and Demand Comparison (Page 75 of UWMP Guidelines)

Projected Supply During Multiple Dry Year Period Ending in 2010 - AF/Y (Table 46)

	(normal)	(normal)	(dry)	(dry)	(dry)
Supply[1]	**2006**	**2007**	**2008[2]**	**2009[2]**	**2010[2]**
Groundwater	**143,304**	**151,946**	**190,215**	**198,229**	**206,870**
City of Chino	11,820	12,340	14,019	14,539	15,059
City of Chino Hills	6,680	7,110	8,988	9,418	9,848
Cucamonga Valley Water District	22,040	24,880	39,073	41,913	44,753
Fontana Water Company	42,500	42,600	42,700	42,800	42,900
Monte Vista Water District	19,220	21,940	28,623	31,343	34,063
City of Ontario	25,524	27,536	37,623	39,635	41,646
San Antonio Water Company	7,720	7,740	8,388	7,780	7,800
City of Upland	7,800	7,800	10,801	10,801	10,801
Recycled Water	**13,616**	**19,962**	**26,308**	**34,287**	**42,900**
City of Chino	3,972	4,544	5,115	5,972	6,885
City of Chino Hills	1,429	2,058	2,688	3,483	4,341
Cucamonga Valley Water District	3,808	6,346	8,884	11,993	15,356
Fontana Water Company	707	1,415	2,122	2,971	3,891
Monte Vista Water District	108	217	325	455	596
City of Ontario	3,591	5,382	7,174	9,413	11,832
San Antonio Water Company	0	0	0	0	0
City of Upland	0	0	0	0	0
Surface Water	**18,700**	**18,700**	**9,252**	**15,780**	**14,474**
City of Chino	0	0	0	0	0
City of Chino Hills	0	0	0	0	0
Cucamonga Valley Water District	3,000	3,000	1,484	2,531	2,322
Fontana Water Company	7,000	7,000	3,463	5,907	5,418
Monte Vista Water District	0	0	0	0	0
City of Ontario	0	0	0	0	0
San Antonio Water Company	3,500	3,500	1,732	2,953	2,709
City of Upland	5,200	5,200	2,573	4,388	4,025
Imported Water	**65,720**	**65,240**	**36,760**	**38,280**	**39,800**
City of Chino	4,520	4,740	3,801	4,021	4,241
City of Chino Hills	700	1,000	(148)	152	452
Cucamonga Valley Water District	32,000	30,000	17,647	17,647	17,647
Fontana Water Company	460	920	1,380	1,840	2,300
Monte Vista Water District	6,400	6,500	2,637	2,737	2,837
City of Ontario	17,340	17,780	10,144	10,584	11,024
San Antonio Water Company	0	0	0	0	0
City of Upland	4,300	4,300	1,299	1,299	1,299
% of Projected Normal[3]					
Groundwater	**100%**	**100%**	**118%**	**117%**	**116%**
Recycled Water	**100%**	**100%**	**100%**	**105%**	**110%**
Surface Water	**100%**	**100%**	**49%**	**84%**	**77%**
Imported Water	**100%**	**100%**	**56%**	**57%**	**58%**
Total					
City of Chino	20,312	21,624	22,935	24,532	26,185
City of Chino Hills	8,809	10,168	11,528	13,053	14,641
Cucamonga Valley Water District	60,848	64,226	67,088	74,085	80,078
Fontana Water Company	50,667	51,935	49,666	53,518	54,509
Monte Vista Water District	25,728	28,657	31,585	34,535	37,496
City of Ontario	46,456	50,698	54,941	59,632	64,502
San Antonio Water Company	11,220	11,240	10,120	10,733	10,509
City of Upland	17,300	17,300	14,673	16,488	16,125

Notes:

(1) Supply values extrapolated from 2005 and 2010 data.

(2) DYY Program assumed to begin in year 2008 according to the Master Agreement. DYY Program in effect during multiple dry years.

(3) Projected normal use from Table 40.

Projected Demand Multiple Dry-Year Period ending in 2010 - AF/Y (Table 47)

	(normal)	(normal)	(dry)	(dry)	(dry)
	2006	**2007**	**2008**	**2009**	**2010**
Demand	**223,871**	**233,553**	**243,236**	**252,918**	**262,600**
City of Chino	19,100	19,800	20,500	21,200	21,900
City of Chino Hills	17,921	19,116	20,310	21,505	22,700
Cucamonga Valley Water District	54,280	57,060	59,840	62,620	65,400
Fontana Water Company	47,680	48,760	49,840	50,920	52,000
Monte Vista Water District	12,610	12,758	12,905	13,053	13,200
City of Ontario	46,660	50,320	53,980	57,640	61,300
San Antonio Water Company	3,520	3,540	3,560	3,580	3,600
City of Upland	22,100	22,200	22,300	22,400	22,500
Conservation(1)	**0**	**0**	**(24,324)**	**(25,292)**	**(26,260)**
Adjusted Demand	**223,871**	**233,553**	**218,912**	**227,626**	**236,340**
% of Projected Normal	**100%**	**100%**	**90%**	**90%**	**90%**
Supply/Demand Balance Check					
City of Chino	1,212	1,824	4,485	5,452	6,475
City of Chino Hills	(9,112)	(8,947)	(6,752)	(6,302)	(5,789)
Cucamonga Valley Water District	6,568	7,166	13,232	17,727	21,218
Fontana Water Company	2,987	3,175	4,810	7,690	7,709
Monte Vista Water District	13,118	15,899	19,971	22,788	25,616
City of Ontario	(204)	378	6,359	7,756	9,332
San Antonio Water Company	7,700	7,700	6,916	7,511	7,269
City of Upland	(4,800)	(4,900)	(5,397)	(3,672)	(4,125)

(1) Assumed 10% conservation of demand for each of three consecutive dry years. Refer to Chapter 4, Water Conservation Program.

Projected Supply & Demand Comparison During Multiple Dry-Year Period Ending in 2010 - AF/Y (Table 48)

	2006	2007	2008	2009	2010
Supply Totals	241,340	255,848	262,536	286,575	304,044
Demand Totals	223,871	233,553	218,912	227,626	236,340
Difference (supply minus demand)	17,469	22,294	43,624	58,949	67,704
Difference as % of Supply	7%	9%	17%	21%	22%
Difference as % of Demand	8%	10%	20%	26%	29%

IEUA 2005 UWMP
Section 7 - Water Service Reliability 2011-2015
Step Three: Projected Multiple-Dry-Year Supply and Demand Comparison (Page 75 of UWMP Guidelines)

Projected Supply During Multiple Dry Year Period Ending in 2015 - AF/Y (Table 49)

	(normal)	(dry)	(dry)	(dry)	(normal)
Supply[1]	**2011**	**2012**	**2013**	**2014**	**2015**
Groundwater	**180,592**	**212,936**	**215,035**	**217,757**	**191,479**
City of Chino	14,540	16,339	16,979	17,619	17,100
City of Chino Hills	8,400	9,848	9,848	9,848	8,400
Cucamonga Valley Water District	34,600	47,153	48,353	49,553	39,400
Fontana Water Company	42,900	42,900	42,900	42,900	42,900
Monte Vista Water District	30,100	34,063	34,063	34,063	30,100
City of Ontario	34,292	43,090	43,811	44,533	37,179
San Antonio Water Company	7,820	8,462	7,860	7,880	7,900
City of Upland	7,940	11,081	11,221	11,361	8,500
Recycled Water	**41,000**	**43,000**	**47,250**	**51,700**	**49,000**
City of Chino	6,594	6,929	7,628	8,360	7,935
City of Chino Hills	4,164	4,383	4,831	5,302	5,038
Cucamonga Valley Water District	15,174	16,387	18,481	20,696	20,028
Fontana Water Company	3,686	3,835	4,183	4,546	4,282
Monte Vista Water District	560	577	625	674	630
City of Ontario	10,822	10,888	11,502	12,123	11,087
San Antonio Water Company	0	0	0	0	0
City of Upland	0	0	0	0	0
Surface Water	**18,700**	**9,252**	**15,780**	**14,474**	**18,700**
City of Chino	0	0	0	0	0
City of Chino Hills	0	0	0	0	0
Cucamonga Valley Water District	3,000	1,484	2,531	2,322	3,000
Fontana Water Company	7,000	3,463	5,907	5,418	7,000
Monte Vista Water District	0	0	0	0	0
City of Ontario	0	0	0	0	0
San Antonio Water Company	3,500	1,732	2,953	2,709	3,500
City of Upland	5,200	2,573	4,388	4,025	5,200
Imported Water	**69,900**	**42,000**	**43,100**	**44,200**	**74,300**
City of Chino	5,400	4,241	4,241	4,241	5,400
City of Chino Hills	2,000	652	752	852	2,400
Cucamonga Valley Water District	29,000	17,647	17,647	17,647	29,000
Fontana Water Company	3,140	3,980	4,820	5,660	6,500
Monte Vista Water District	6,800	2,837	2,837	2,837	6,800
City of Ontario	19,260	11,344	11,504	11,664	19,900
San Antonio Water Company	0	0	0	0	0
City of Upland	4,300	1,299	1,299	1,299	4,300
% of Projected Normal[3]					
Groundwater	**100%**	**116%**	**116%**	**115%**	**100%**
Recycled Water	**100%**	**100%**	**105%**	**110%**	**100%**
Surface Water	**100%**	**49%**	**84%**	**77%**	**100%**
Imported Water	**100%**	**59%**	**60%**	**60%**	**100%**
Total					
City of Chino	26,534	27,509	28,848	30,220	30,435
City of Chino Hills	14,564	14,883	15,431	16,002	15,838
Cucamonga Valley Water District	81,774	82,672	87,012	90,218	91,428
Fontana Water Company	56,726	54,178	57,810	58,524	60,682
Monte Vista Water District	37,460	37,477	37,525	37,574	37,530
City of Ontario	64,374	65,322	66,818	68,320	68,166
San Antonio Water Company	11,320	10,194	10,813	10,589	11,400
City of Upland	17,440	14,953	16,908	16,685	18,000

Notes:

(1) Supply values extrapolated from 2005 and 2010 data.

(2) Projected normal use from Table 40.

Projected Demand Multiple Dry-Year Period ending in 2015 - AF/Y (Table 50)

	(normal)	(dry)	(dry)	(dry)	(normal)
	2011	**2012**	**2013**	**2014**	**2015**
Demand	**267,480**	**272,360**	**277,240**	**282,120**	**287,000**
City of Chino	22,760	23,620	24,480	25,340	26,200
City of Chino Hills	23,100	23,500	23,900	24,300	24,700
Cucamonga Valley Water District	66,820	68,240	69,660	71,080	72,500
Fontana Water Company	53,000	54,000	55,000	56,000	57,000
Monte Vista Water District	13,380	13,560	13,740	13,920	14,100
City of Ontario	62,360	63,420	64,480	65,540	66,600
San Antonio Water Company	3,560	3,520	3,480	3,440	3,400
City of Upland	22,500	22,500	22,500	22,500	22,500
Conservation(1)	**0**	**(27,236)**	**(27,724)**	**(28,212)**	**0**
Adjusted Demand	**267,480**	**245,124**	**249,516**	**253,908**	**287,000**
% of Projected Normal	**100%**	**90%**	**90%**	**90%**	**100%**
Supply/Demand Balance Check					
City of Chino	3,774	6,251	6,816	7,414	4,235
City of Chino Hills	(8,536)	(6,267)	(6,079)	(5,868)	(8,862)
Cucamonga Valley Water District	14,954	21,256	24,318	26,246	18,928
Fontana Water Company	3,726	5,578	8,310	8,124	3,682
Monte Vista Water District	24,080	25,273	25,159	25,046	23,430
City of Ontario	2,014	8,244	8,786	9,334	1,566
San Antonio Water Company	7,760	7,026	7,681	7,493	8,000
City of Upland	(5,060)	(5,297)	(3,342)	(3,565)	(4,500)

(1) Assumed 10% conservation of demand for each of three consecutive dry years. Refer to Chapter 4, Water Conservation Program.

Projected Supply & Demand Comparison During Multiple Dry-Year Period Ending in 2015 - AF/Y (Table 51)

	2011	**2012**	**2013**	**2014**	**2015**
Supply Totals	310,192	307,188	321,165	328,131	333,479
Demand Totals	267,480	245,124	249,516	253,908	287,000
Difference (supply minus demand)	42,712	62,064	71,649	74,223	46,479
Difference as % of Supply	14%	20%	22%	23%	14%
Difference as % of Demand	16%	25%	29%	29%	16%

IEUA 2005 UWMP
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Projected Supply During Multiple Dry Year Period Ending in 2020 - AF/Y (Table 52)

	(normal)	(dry)	(dry)	(dry)	(normal)
Supply[1]	**2016**	**2017**	**2018**	**2019**	**2020**
Groundwater	**194,324**	**226,782**	**229,014**	**231,859**	**205,704**
City of Chino	17,320	18,699	18,919	19,139	18,200
City of Chino Hills	8,400	9,848	9,848	9,848	8,400
Cucamonga Valley Water District	40,000	51,953	52,553	53,153	42,400
Fontana Water Company	42,900	42,900	42,900	42,900	42,900
Monte Vista Water District	30,680	35,223	35,803	36,383	33,000
City of Ontario	38,584	48,065	49,470	50,875	44,204
San Antonio Water Company	7,920	8,553	7,960	7,980	8,000
City of Upland	8,520	11,541	11,561	11,581	8,600
Recycled Water	**50,800**	**52,600**	**57,120**	**61,820**	**58,000**
City of Chino	8,472	9,009	10,023	11,091	10,620
City of Chino Hills	4,985	4,932	5,123	5,309	4,773
Cucamonga Valley Water District	20,607	21,185	22,852	24,577	22,921
Fontana Water Company	4,361	4,439	4,744	5,056	4,675
Monte Vista Water District	671	712	791	873	835
City of Ontario	11,705	12,323	13,587	14,914	14,176
San Antonio Water Company	0	0	0	0	0
City of Upland	0	0	0	0	0
Surface Water	**18,700**	**9,252**	**15,780**	**14,474**	**18,700**
City of Chino	0	0	0	0	0
City of Chino Hills	0	0	0	0	0
Cucamonga Valley Water District	3,000	1,484	2,531	2,322	3,000
Fontana Water Company	7,000	3,463	5,907	5,418	7,000
Monte Vista Water District	0	0	0	0	0
City of Ontario	0	0	0	0	0
San Antonio Water Company	3,500	1,732	2,953	2,709	3,500
City of Upland	5,200	2,573	4,388	4,025	5,200
Imported Water	**75,560**	**47,820**	**49,080**	**50,340**	**80,600**
City of Chino	5,400	4,241	4,241	4,241	5,400
City of Chino Hills	2,480	1,112	1,192	1,272	2,800
Cucamonga Valley Water District	29,000	17,647	17,647	17,647	29,000
Fontana Water Company	7,520	8,540	9,560	10,580	11,600
Monte Vista Water District	6,960	3,157	3,317	3,477	7,600
City of Ontario	19,900	11,824	11,824	11,824	19,900
San Antonio Water Company	0	0	0	0	0
City of Upland	4,300	1,299	1,299	1,299	4,300
% of Projected Normal[3]					
Groundwater	**100%**	**115%**	**114%**	**114%**	**100%**
Recycled Water	**100%**	**100%**	**105%**	**110%**	**100%**
Surface Water	**100%**	**49%**	**84%**	**77%**	**100%**
Imported Water	**100%**	**62%**	**63%**	**63%**	**100%**
Total					
City of Chino	31,192	31,949	33,183	34,471	34,220
City of Chino Hills	15,865	15,892	16,163	16,429	15,973
Cucamonga Valley Water District	92,607	92,270	95,583	97,699	97,321
Fontana Water Company	61,781	59,343	63,111	63,954	66,175
Monte Vista Water District	38,311	39,092	39,911	40,733	41,435
City of Ontario	70,189	72,212	74,881	77,613	78,280
San Antonio Water Company	11,420	10,285	10,913	10,689	11,500
City of Upland	18,020	15,413	17,248	16,905	18,100

Notes:

(1) Supply values extrapolated from 2015 and 2020 data.

(2) Projected normal use from Table 40.

Projected Demand Multiple Dry-Year Period ending in 2020 - AF/Y (Table 53)

	(normal)	(dry)	(dry)	(dry)	(normal)
Demand	**2016**	**2017**	**2018**	**2019**	**2020**
Imported Water	**292,580**	**298,160**	**303,740**	**309,320**	**314,900**
City of Chino	26,940	27,680	28,420	29,160	29,900
City of Chino Hills	24,840	24,980	25,120	25,260	25,400
Cucamonga Valley Water District	73,900	75,300	76,700	78,100	79,500
Fontana Water Company	58,140	59,280	60,420	61,560	62,700
Monte Vista Water District	14,240	14,380	14,520	14,660	14,800
City of Ontario	68,600	70,600	72,600	74,600	76,600
San Antonio Water Company	3,400	3,400	3,400	3,400	3,400
City of Upland	22,520	22,540	22,560	22,580	22,600
Conservation(1)	**0**	**(29,816)**	**(30,374)**	**(30,932)**	**0**
Adjusted Demand	**292,580**	**268,344**	**273,366**	**278,388**	**314,900**
% of Projected Normal	**100%**	**90%**	**90%**	**90%**	**100%**
Supply/Demand Balance Check					
City of Chino	4,252	7,037	7,605	8,227	4,320
City of Chino Hills	(8,975)	(6,590)	(6,445)	(6,305)	(9,427)
Cucamonga Valley Water District	18,707	24,500	26,553	27,409	17,821
Fontana Water Company	3,641	5,991	8,733	8,550	3,475
Monte Vista Water District	24,071	26,150	26,843	27,539	26,635
City of Ontario	1,589	8,672	9,541	10,473	1,680
San Antonio Water Company	8,020	7,225	7,853	7,629	8,100
City of Upland	(4,500)	(4,873)	(3,056)	(3,417)	(4,500)

(1) Assumed 10% conservation of demand for each of three consecutive dry years. Refer to Chapter 4, Water Conservation Program.

Projected Supply & Demand Comparison During Multiple Dry-Year Period Ending in 2020 - AF/Y (Table 54)

	2016	**2017**	**2018**	**2019**	**2020**
Supply Totals	339,384	336,454	350,994	358,493	363,004
Demand Totals	292,580	268,344	273,366	278,388	314,900
Difference (supply minus demand)	46,804	68,110	77,628	80,105	48,104
Difference as % of Supply	14%	20%	22%	22%	13%
Difference as % of Demand	16%	25%	28%	29%	15%

IEUA 2005 UWMP
Section 7 - Water Service Reliability 2021-2025
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Projected Supply During Multiple Dry Year Period Ending in 2025 - AF/Y (Table 55)

	(normal)	(dry)	(dry)	(dry)	(normal)
Supply[1]	**2021**	**2022**	**2023**	**2024**	**2025**
Groundwater	**207,134**	**238,169**	**238,994**	**240,424**	**212,854**
City of Chino	18,200	19,359	19,359	19,359	18,200
City of Chino Hills	8,400	9,848	9,848	9,848	8,400
Cucamonga Valley Water District	42,400	53,753	53,753	53,753	42,400
Fontana Water Company	42,900	42,900	42,900	42,900	42,900
Monte Vista Water District	33,000	36,963	36,963	36,963	33,000
City of Ontario	45,614	55,100	56,510	57,920	51,254
San Antonio Water Company	8,020	8,645	8,060	8,080	8,100
City of Upland	8,600	11,601	11,601	11,601	8,600
Recycled Water	**60,200**	**62,400**	**67,830**	**73,480**	**69,000**
City of Chino	10,862	11,105	11,915	12,749	11,832
City of Chino Hills	4,882	4,991	5,356	5,731	5,319
Cucamonga Valley Water District	24,080	25,239	27,719	30,314	28,717
Fontana Water Company	4,883	5,091	5,564	6,058	5,715
Monte Vista Water District	854	873	937	1,003	931
City of Ontario	14,638	15,100	16,340	17,626	16,486
San Antonio Water Company	0	0	0	0	0
City of Upland	0	0	0	0	0
Surface Water	**18,700**	**9,252**	**15,780**	**14,474**	**18,700**
City of Chino	0	0	0	0	0
City of Chino Hills	0	0	0	0	0
Cucamonga Valley Water District	3,000	1,484	2,531	2,322	3,000
Fontana Water Company	7,000	3,463	5,907	5,418	7,000
Monte Vista Water District	0	0	0	0	0
City of Ontario	0	0	0	0	0
San Antonio Water Company	3,500	1,732	2,953	2,709	3,500
City of Upland	5,200	2,573	4,388	4,025	5,200
Imported Water	**80,980**	**52,360**	**52,740**	**53,120**	**82,500**
City of Chino	5,400	4,241	4,241	4,241	5,400
City of Chino Hills	2,900	1,552	1,652	1,752	3,300
Cucamonga Valley Water District	29,000	17,647	17,647	17,647	29,000
Fontana Water Company	11,880	12,160	12,440	12,720	13,000
Monte Vista Water District	7,580	3,597	3,577	3,557	7,500
City of Ontario	19,920	11,864	11,884	11,904	20,000
San Antonio Water Company	0	0	0	0	0
City of Upland	4,300	1,299	1,299	1,299	4,300
% of Projected Normal[3]					
Groundwater	**100%**	**114%**	**114%**	**114%**	**100%**
Recycled Water	**100%**	**100%**	**105%**	**110%**	**100%**
Surface Water	**100%**	**49%**	**84%**	**77%**	**100%**
Imported Water	**100%**	**64%**	**65%**	**65%**	**100%**
Total					
City of Chino	34,462	34,705	35,515	36,349	35,432
City of Chino Hills	16,182	16,391	16,856	17,331	17,019
Cucamonga Valley Water District	98,480	98,124	101,650	104,036	103,117
Fontana Water Company	66,663	63,614	66,811	67,096	68,615
Monte Vista Water District	41,434	41,433	41,477	41,523	41,431
City of Ontario	80,172	82,064	84,734	87,450	87,740
San Antonio Water Company	11,520	10,377	11,013	10,789	11,600
City of Upland	18,100	15,473	17,288	16,925	18,100

Notes:

(1) Supply values extrapolated from 2020 and 2025 data.

(2) Projected normal use from Table 40.

Projected Demand Multiple Dry-Year Period ending in 2025 - AF/Y (Table 56)

Demand	(normal) 2021	(dry) 2022	(dry) 2023	(dry) 2024	(normal) 2025
Imported Water	**318,820**	**322,740**	**326,660**	**330,580**	**334,500**
City of Chino	29,940	29,980	30,020	30,060	30,100
City of Chino Hills	25,600	25,800	26,000	26,200	26,400
Cucamonga Valley Water District	80,800	82,100	83,400	84,700	86,000
Fontana Water Company	63,360	64,020	64,680	65,340	66,000
Monte Vista Water District	14,940	15,080	15,220	15,360	15,500
City of Ontario	78,140	79,680	81,220	82,760	84,300
San Antonio Water Company	3,420	3,440	3,460	3,480	3,500
City of Upland	22,620	22,640	22,660	22,680	22,700
Conservation(1)	**0**	**(32,274)**	**(32,666)**	**(33,058)**	**0**
Adjusted Demand	**318,820**	**290,466**	**293,994**	**297,522**	**334,500**
% of Projected Normal	**100%**	**90%**	**90%**	**90%**	**100%**
Supply/Demand Balance Check					
City of Chino	4,522	7,723	8,497	9,295	5,332
City of Chino Hills	(9,418)	(6,829)	(6,544)	(6,249)	(9,381)
Cucamonga Valley Water District	17,680	24,234	26,590	27,806	17,117
Fontana Water Company	3,303	5,996	8,599	8,290	2,615
Monte Vista Water District	26,494	27,861	27,779	27,699	25,931
City of Ontario	2,032	10,352	11,636	12,966	3,440
San Antonio Water Company	8,100	7,281	7,899	7,657	8,100
City of Upland	(4,520)	(4,903)	(3,106)	(3,487)	(4,600)

(1) Assumed 10% conservation of demand for each of three consecutive dry years. Refer to Chapter 4, Water Conservation Program.

Projected Supply & Demand Comparison During Multiple Dry-Year Period Ending in 2025 - AF/Y (Table 57)

	2021	2022	2023	2024	2025
Supply Totals	367,014	362,181	375,344	381,498	383,054
Demand Totals	318,820	290,466	293,994	297,522	334,500
Difference (supply minus demand)	48,194	71,715	81,350	83,976	48,554
Difference as % of Supply	13%	20%	22%	22%	13%
Difference as % of Demand	15%	25%	28%	28%	15%

Rainfall Data
Summary of Findings at Prado (data provided by Ben Pak at IEUA)

	Water Year	Rainfall (in)
1	1970-71	11.97
2	1971-72	9.62
3	1972-73	18.46
4	1973-74	12.72
5	1974-75	13.49
6	1975-76	15.86
7	1976-77	11.95
8	1977-78	30.47
9	1978-79	17.51
10	1979-80	30.93
11	1980-81	10.45
12	1981-82	18.34
13	1982-83	32.36
14	1983-84	10.81
15	1984-85	12.86
16	1985-86	17.86
17	1986-87	8.08
18	1987-88	13.78
19	1988-89	12.64
20	1989-90	8.53
21	1990-91	15.48
22	1991-92	16.54
23	1992-93	30.92
24	1993-94	11.62
25	1994-95	25.14
26	1995-96	11.92
27	1996-97	18.64
28	1997-98	33.41
29	1998-99	8.02
30	1999-00	11.09
31	2000-01	16.13
32	2001-02	5.08
33	2002-03	16.22
	average	16.33

Surface Water Reliability During Drought

Percentage during period of lowest rainfall (single years)	31%
Percentage during period of lowest rainfall (multiple years)	49%
	84%
	77%