CHAPTER 10
WATER SERVICE RELIABILITY

10.1 RELIABILITY DURING A DROUGHT

The available supplies and water demands for IEUA's service area were analyzed to assess the region's ability to satisfy demands during three scenarios: a normal water year, single dry year, and multiple dry years. The tables in this section present the supply-demand balance for the various drought scenarios for the twenty year planning period 2005-2025. It is expected that the region will be able to meet 100 percent of its dry year demand under every scenario. The following Table 10-1 presents the supply reliability, as percentages of normal water year supplies, for the IEUA service area during normal, single dry, and multiple dry water years.

Table 10-1
Supply Reliability as Percentage of Normal Water Year Supply

			Multiple Dry Water Years[2]			
	Normal Water Year	Single Dry Water Year	Year 1	Year 2	Year3	Year 4[3]
Groundwater	100%	115%	116%	115%	114%	
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 MWD's Draft 2005 RUWMP, Sept 2005. 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) MWD's Draft 2005 RUWMP, Sept 2005, provides information for three consecutive dry years.

The historical basis for the supply reliability data is presented in Table 10-2, which summarizes the base years for normal, single dry, and multiple dry water years.

Table 10-2
Basis of Water Year Data

Water Year Type	Base Year(s)	Historical 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 MWD's Draft 2005 RUWMP, Sept 2005.

The following subsections describe the region's water supply and demand during each of the three scenarios for the next twenty years.

Normal Water Year

The region's water supply is broken down into four categories: groundwater, recycled water, surface water, and imported water. With emphasis on local water supply development within IEUA's service area, including an increase in the availability of recycled water, it is anticipated that the region's dependability on imported water supplies will be reduced by 2025. The Supply Reliability described previously and summarized in Table 10-1 predicts that 100 percent of local and imported supplies will be available to meet the region's demands during a normal water year. The following Table 10-3 presents the projected water supply during a normal year.

Table 10-3
Projected Normal Year Water Supply[1] (AFY)

Supply	2010	2015	2020	2025
Groundwater[2]	177,870	191,479	205,704	212,854
Recycled Water	39,000	49,000	58,000	69,000
Surface Water	18,700	18,700	18,700	18,700
Imported Water	68,800	74,300	80,600	82,500
% of Normal Year[3]				
Groundwater	119%	128%	137%	142%
Recycled Water	3686%	4631%	5482%	6522%
Surface Water	174%	174%	174%	174%
Imported Water	87%	94%	102%	104%

Notes:
(1) Assumes zero conservation.
(2) Includes groundwater from Chino Basin (inc. CDA supply) and other basins.
(3) From Table 10-2.

Table 10-4 summarizes the region's demands during a normal year over the next twenty years. It is estimated that water demands will increase to approximately 334,000 AF by the year 2025. However, as additional recycled water supplies become available and local agencies connect to the recycled water system, the region's dependability on imported water supplies will decrease.

Table 10-4
Projected Normal Year Water Demand (AFY)

	2010	2015	2020	2025
Demand	262,600	287,000	314,900	334,500
% of Year 2005	123%	134%	147%	156%

The comparison between supply and demand for a normal water year is presented in Table 10-5. In a normal year, zero water conservation has been assumed, providing a more conservative assessment of the region's supplies. The region is expected to meet 100 percent of water demands through the year 2025, with an annual surplus ranging from approximately 41,000 to 49,000 AF.

Table 10-5
Projected Normal Year Supply and Demand Comparison (AFY)

	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%

Single Dry Year

The water demands and supplies for IEUA's service area over the next twenty years were analyzed in the event that a single dry year occurs, similar to the drought that occurred in California in 1977[1]. The development of groundwater storage, recycled water systems, surface water supplies, and improvements in water quality and conservation, will greatly reduce the need for imported water supplies during dry years. The following paragraphs describe the available water supply to IEUA.

Groundwater. Groundwater supplies represent a significant supplemental source of water for water agencies within the IEUA service area. The majority of groundwater is produced from the Chino Basin with additional water produced from other local groundwater basins. The Chino Basin is the largest groundwater basin in the Upper Santa Ana Watershed, currently containing 5,000,000 AF of water in storage with an unused storage capacity of approximately 1,000,000 AF. Water rights within the Chino Basin have been adjudicated and the average safe-yield of the Basin is 140,000 AFY. It is anticipated that when over-pumping is required during a single dry year event, additional groundwater pumped beyond the safe yield of the Basin will be replenished during wet or normal years with imported water purchased from the Metropolitan Water District of Southern California (MWD) and with supplemental water from recycled and/or surface supplies.

IEUA, the Chino Basin Watermaster (Watermaster), and MWD have developed the Chino Basin Dry-Year Yield Program (DYY Program) to help alleviate demands on imported water during dry years by pumping additional groundwater. Three Valleys Municipal Water District is also a signatory to the Program. The DYY Program is the first step in a phased plan to develop and implement a

[1] MWD Draft 2005 RUWMP, Sept 2005

comprehensive conjunctive use program to allow maximum use of imported water available during wet years and stored groundwater in the Chino Basin during dry years. Imported water deliveries to participants would increase during wet or normal (or "put") years, and purchase of imported water would decrease during dry (or "take") years. Collectively, the eight DYY participants, six of which are local retail agencies of IEUA, would meet predetermined amounts to achieve a 25,000 AFY "put" and a 33,000 AFY "take". Each of the local retail agencies volunteered to produce excess groundwater during a dry year in-lieu of normal imported water deliveries. In exchange, they received funding for new groundwater treatment and well facilities that would allow excess groundwater production during dry years. IEUA's overall imported water demands during dry years would decrease by 29,000 AFY, which equals the portion of the 33,000 AFY of the DYY shift obligation for IEUA's local retail agencies, as shown in Table 10-6.

Table 10-6
Participating Agencies DYY Shift Obligations

Local Retail Agency	DYY Program Shift Obligation (AFY)
City of Chino	1,159
City of Chino Hills	1,448
Cucamonga Valley Water District	11,353
Jurupa Community Services District(1)	2,000
Monte Vista Water District	3,963
City of Ontario	8,076
City of Pomona(1)	2,000
City of Upland	3,001
Total	**33,000**

Notes:
(1) Agencies not within the IEUA service area.

During dry years when the DYY Program is active, groundwater production will increase to approximately 116 percent of a normal year.

Recycled Water. Recycled water is becoming an increasingly important source of local water for the region. Recycled water is a critical component of the Optimum Basin Management Plan (OBMP), developed in 2000, to address water quality issues in the Chino Basin. Current use of recycled water within the region is approximately 7,000 AFY and is expected to increase to nearly 69,000 AF by 2025. During a single dry year, it has been assumed that recycled water will be 100 percent reliable.

Surface Water. A portion of the water supply for the IEUA service area is comprised of surface water. The principal sources of surface water include San Antonio Canyon, Cucamonga Canyon, Day Creek, Lytle Creek and several smaller surface streams. Currently, the region receives approximately 18,700 AFY of surface water, which is expected to hold constant through 2025. During a dry year, however, it is anticipated that the availability of surface supplies will decrease. For a single dry year event, surface supplies are assumed to have 31

percent reliability, which is estimated based upon historical rainfall data in the Prado region during the years 1970-2003. Water Year 2001-2002 was the driest on record with 5.08 inches of precipitation.

Imported Water. Southern California expects to have a reliable water supply for the foreseeable future due to the integrated resources planning effort of the Metropolitan Water District of Southern California (MWD) and its member agencies. As a water wholesaler, MWD supplies imported water to IEUA to meet the water needs of its service area at the lowest possible cost. MWD's *Report on Metropolitan's Water Supplies*, dated March 25, 2003, describes how MWD has created a diverse resource portfolio and aggressive conservation program to protect the reliability of the entire system. MWD demonstrates that sufficient supplies can be reasonably relied upon to meet projected supplemental demands. The report outlines MWD's Comprehensive Supplemental Supply Plan, which if implemented, would provide MWD with the capability to reliably meet projected supplemental water demands through 2030.[2] As a result, during a single dry year event, MWD will have the resources to supply IEUA with 100 percent of their imported water demands. However, as discussed previously, with the DYY Program in effect, several of IEUA's retail agencies will reduce their imported water demand by their DYY Program shift, thus reducing demands on Metropolitan. During a dry year, imported water demands are expected to decrease to approximately 58 percent.

Tables 10-7 through 10-9 summarize the projected single dry year water supply and demand for the years 2010 through 2025.

Table 10-7
Projected Single Dry Year Water Supply (AFY)

Supply	2010	2015	2020	2025
Groundwater	208,133	221,733	235,950	243,091
Recycled Water	39,000	49,000	58,000	69,000
Surface Water	5,817	5,817	5,817	5,817
Imported Water	39,800	45,300	51,600	53,500
% of Normal Year				
Groundwater	117%	116%	115%	114%
Recycled Water	100%	100%	100%	100%
Surface Water	31%	31%	31%	31%
Imported Water	58%	61%	64%	65%

Notes:
(1) Projected normal use from Table 10-3.

[2] MWD's 2005 RUWMP, Sept 2005

Table 10-8
Projected Single Dry Year Water Demand (AFY)

	2010	2015	2020	2025
Demand	262,600	287,000	314,900	334,500
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%

Notes:
(1) Assumed 10% conservation of demand for single dry years.
(2) Projected Normal Use from Table 10-4.

Table 10-9
Projected Single Dry Year Supply and Demand Comparison (AFY)

	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%

Multiple Dry Years

The water demands and supplies for IEUA's service area over the next twenty years were analyzed in the event that a multiple dry year occurs, similar to the drought that occurred during the years 1990-1992[3]. The following paragraphs describe the available water supply to IEUA during a multiple dry year period.

Groundwater. Similar to the Single Dry Year scenario described previously, implementing the DYY Program requires local retail agencies to produce additional groundwater in-lieu of accepting imported water deliveries. Each agency pumps additional groundwater in the amount of their shift obligation. Production in excess of the safe yield of the Basin is replaced with replenishment water during wet or normal years. With the DYY Program in place, groundwater has been assumed to be approximately 117 percent reliable during dry years.

Recycled Water. During multiple dry years, the use of recycled water for irrigation and other purposes helps reduce overall water demands. It has been assumed that during multiple dry years, the production of recycled water will gradually increase from 100 percent during the first dry year to 105 and 110 percent, respectively, during the next two subsequent dry years as more customers become connected to the recycled water system.

[3] MWD's Draft RUWMP, Sept 2005

Surface Water. Though surface water provides a supplemental source of water during normal years, the volume of available surface water is expected to decrease in a multiple dry year scenario. Surface water reliability was estimated using rainfall data for the Prado region during the years 1970-2003. This decrease in available supplies can be offset by implementation of a conservation program during dry years or through pumping of additional groundwater. Surface water reliability is anticipated to be in the range of 49 to 84 percent during a multiple year drought.

Imported Water.
During multiple dry years, local agencies reduce their imported water demands by increasing groundwater production in accordance with the DYY Program. The DYY Program reduces imported water demands by approximately 40 percent, thereby conserving Metropolitan's supplies during a drought.

The following Tables 10-10 through 10-12 summarize the projected multiple dry year water supply and demand for five-year periods during the years 2010 through 2025. Each five year period is contains three consecutive dry years where the DYY Program and conservation programs are implemented.

Tables 10-10 through 10-12: 2006-2010

Table 10-10
Projected Supply During Multiple Dry Year Period Ending in 2010 (AFY)

	(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
Recycled Water	13,616	19,962	26,308	34,287	42,900
Surface Water	18,700	18,700	9,252	15,780	14,474
Imported Water	65,720	65,240	36,760	38,280	39,800
% 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%

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 10-3.

Table 10-11
Projected Demand During Multiple Dry Year Period Ending in 2010 (AFY)

	(normal)	(normal)	(dry)	(dry)	(dry)
	2006	**2007**	**2008**	**2009**	**2010**
Demand	223,871	233,553	243,236	252,918	262,600
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[2]	100%	100%	90%	90%	90%

Notes:
(1) Assumed 10% conservation of demand for dry years. Refer to Chapter 4, Water Conservation Program.
(2) Projected Normal Use from Table 10-4.

Table 10-12
Projected Supply and Demand Comparison During Multiple Dry Year Period Ending in 2010 (AFY)

	(normal)	(normal)	(dry)	(dry)	(dry)
	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%

Tables 10-13 through 10-15: 2011-2015

Table 10-13
Projected Supply During Multiple Dry Year Period Ending in 2015 (AFY)

	(normal)	(dry)	(dry)	(dry)	(normal)
Supply[(1)(2)]	**2011**	**2012**	**2013**	**2014**	**2015**
Groundwater	180,592	212,936	215,035	217,757	191,479
Recycled Water	41,000	43,000	47,250	51,700	49,000
Surface Water	18,700	9,252	15,780	14,474	18,700
Imported Water	69,900	42,000	43,100	44,200	74,300
% 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%

Notes:
(1) Supply values extrapolated from 2010 and 2015 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 10-3.

Table 10-14
Projected Demand During Multiple Dry Year Period Ending in 2015 (AFY)

	(normal)	(dry)	(dry)	(dry)	(normal)
	2011	**2012**	**2013**	**2014**	**2015**
Demand	267,480	272,360	277,240	282,120	287,000
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[(2)]	100%	90%	90%	90%	100%

Notes:
(1) Assumed 10% conservation of demand for multiple dry years.
(2) Projected Normal Use from Table 10-4.

Table 10-15
Projected Supply and Demand Comparison During Multiple Dry Year Period Ending in 2015 (AFY)

	(normal)	(dry)	(dry)	(dry)	(normal)
	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%

Tables 10-16 through 10-18: 2016-2020

Table 10-16
Projected Supply During Multiple Dry Year Period Ending in 2020 (AFY)

	(normal)	(dry)	(dry)	(dry)	(normal)
Supply[1][2]	**2016**	**2017**	**2018**	**2019**	**2020**
Groundwater	194,324	226,782	229,014	231,859	205,704
Recycled Water	50,800	52,600	57,120	61,820	58,000
Surface Water	18,700	9,252	15,780	14,474	18,700
Imported Water	75,560	47,820	49,080	50,340	80,600
% 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%

Notes:
(1) Supply values extrapolated from 2015 and 2020 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 10-3.

Table 10-17
Projected Demand During Multiple Dry Year Period Ending in 2020 (AFY)

	(normal)	(dry)	(dry)	(dry)	(normal)
	2016	**2017**	**2018**	**2019**	**2020**
Demand	292,580	298,160	303,740	309,320	314,900
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[2]	100%	90%	90%	90%	100%

Notes:
(1) Assumed 10% conservation of demand for multiple dry years.
(2) Projected Normal Use from Table 10-4.

Table 10-18
Projected Supply and Demand Comparison During Multiple Dry Year Period Ending in 2020 (AFY)

	(normal)	(dry)	(dry)	(dry)	(normal)
	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

Tables 10-19 through 10-21: 2021-2025

Table 10-19
Projected Supply During Multiple Dry Year Period Ending in 2025 (AFY)

	(normal)	(dry)	(dry)	(dry)	(normal)
Supply[(1)(2)]	**2021**	**2022**	**2023**	**2024**	**2025**
Groundwater	207,134	23,169	238,994	240,424	212,854
Recycled Water	60,200	62,400	67,830	73,480	69,000
Surface Water	18,700	9,252	15,780	14,474	18,700
Imported Water	80,980	52,360	52,740	53,120	82,500
% 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%

Notes:
(1) Supply values extrapolated from 2020 and 2025 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 10-3.

Table 10-20
Projected Demand During Multiple Dry Year Period Ending in 2025 (AFY)

	(normal)	(dry)	(dry)	(dry)	(normal)
	2021	**2022**	**2023**	**2024**	**2025**
Demand	318,820	322,740	326,660	330,580	334,500
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[(2)]	100%	90%	90%	90%	100%

Notes:
(1) Assumed 10% conservation of demand for multiple dry years.
(2) Projected Normal Use from Table 10-4.

Table 10-21
Projected Supply and Demand Comparison During Multiple Dry Year Period Ending in 2025 (AFY)

	(normal)	(dry)	(dry)	(dry)	(normal)
	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%

10.2 WATER AGENCY INTERCONNECTIONS

Several local agencies have had the ability to provide their neighbor agencies with water supplies during periods of extraordinary high demand or temporary disruptions in imported supply. Other agencies provide water supplies to other agencies as a matter of routine business agreements. This is generally the result of a lack of capacity to pump local groundwater supplies.

These interconnections are extremely important because the ability to move water around the Chino Basin to provide an important level supply reliability for all the local agencies.

Current interconnections include the Monte Vista Water District which provides an annual supplementary water supply to the City of Chino Hills. This amounts to as much as 10,000 acre-feet each year. Other interconnections occur between the Cucamonga Valley Water District and the Fontana Water Company. Cucamonga Valley Water District provides as much as 5,000 acre-feet annually to Fontana Water Company. In addition, the Chino Desalter Authority as a part of the Chino 1 expansion and the new Chino 2 Desalter have interconnected all the participating agencies with a common supply with booster pumps and storage reservoirs which will allow substantial flexibility and enhanced reliability for delivery water among the agencies during emergency outages or future drought episodes. Finally, an important interconnection occurs between the City of Ontario and the City of Chino.

10.3 MWD SERVICE LINE CAPITAL IMPROVEMENTS

For reasons of water quality, the Santa Ana Regional Water Quality Control Board allows only State Water Project imported supplies to be delivered to the IEUA service area. (Colorado River supplies are too high in TDS to be used in the Chino Basin.) By having only one source of imported water supply, the region is dangerously susceptible to emergency disruptions. This became quite evident in June 2004 when MWD had to conduct an unplanned shutdown of the Rialto Feeder to make emergency repairs. Many local agencies suffered through as much as a 50 percent loss of supply for one week while MWD conducted their repair operations.

This emergency outage showed the vulnerability of the IEUA service area should a catastrophic disruption of MWD supply occur again during the summer months when demand for imported supplies is at its highest. As a result, MWD, working with local agencies, identified several key points along the Rialto Feeder where isolation valves could be installed. Installation of these valves would provide a greater level of reliability to local agencies. In the event of a break in the Rialto Feeder, only a portion of the Feeder may need to be shutdown instead of the entire pipeline being shutdown from the Devils Canyon Forebay to LaVerne

(approximately 30 miles). Interconnections and mutual aid agreements between the local agencies would likely be sufficient to provide adequate supplies during the emergency period.

10.4 MUTUAL AID AGREEMENTS

Mutual aid agreements among local agencies in California are a typical way of dealing effectively with disasters such as brush fires, earthquakes, law enforcement shortages, etc., and the IEUA service area is no different.

As the agency that provides regional sewer service to the seven cities and agencies in the service area (referred to as Regional Contracting Agencies), IEUA took the lead to develop a United Response Guidance Plan for Sanitary Sewer Overflows at the request of the Santa Ana Regional Water Quality Control Board (SARWQCB). The purpose of the SARWQCB's request was the need for a united and coordinated approach for sanitary sewer spills and their possible infiltration into the storm sewers of San Bernardino County. With the joint efforts of IEUA and the Regional Contracting Agencies, the United Response Plan was developed and submitted to the SARWQCB and the San Bernardino County Flood Control District.

The agreement helps to minimize the environmental impact of a sanitary sewer overflow by facilitating communication, dispatching appropriate equipment, reducing spillage, and expediting cleanup. In addition to sewer spills, the Contracting Agencies also agree to provide mutual aid in the event of disruption of water service supply as well. This element of the agreement provides the basis for a full spectrum of mutual aid should any unforeseen disruption occur. Specifically, the agreement says:

"In the event of any disruption or damage to the ability of either Inland Empire Utilities Agency or the Regional Contracting Agencies to continue to serve the public or its customers with water service, sewer service or sewage treatment service, the other party will cooperate to a maximum extent possible, as determined in its discretion, to provide mutual aid assistance as requested. "

This mutual aid agreement provides an important basis for supporting reliability in the IEUA service area.

10.5 MWD IMPORTED WATER RELIABILITY

In 2002, the California Legislature enacted two pieces of legislation to better coordinate water supply and land use planning. These two bills were Senate Bill (SB) 221 (Kuehl) and SB 610 (Costa). These laws require new development to meet certain criteria and provide "substantial evidence" of available water supplies in the event of drought. In response to the new laws, the Metropolitan

Water District of Southern California (MWD) produced *Report on Metropolitan Water Supplies* in February 2002, and then updated the document in March 2003.

As a result of MWD's Integrated Resource Planning (IRP) process that was begun in 1996, MWD began to diversify the portfolio of their available supply sources. The findings of the Report show that the diversification strategy is working well to create greater reliability for all the retail water agencies that are dependant upon MWD for all or a portion of the supplies. The Report further states that if all of MWD's supply programs and local projects proceed as planned, without changes in demand projections, MWD reliability is assured for the next twenty years and beyond. Figure 10-1 is an MWD multiple dry year, supply and demand graphic that illustrates MWD's ability to be reliable through 2025.

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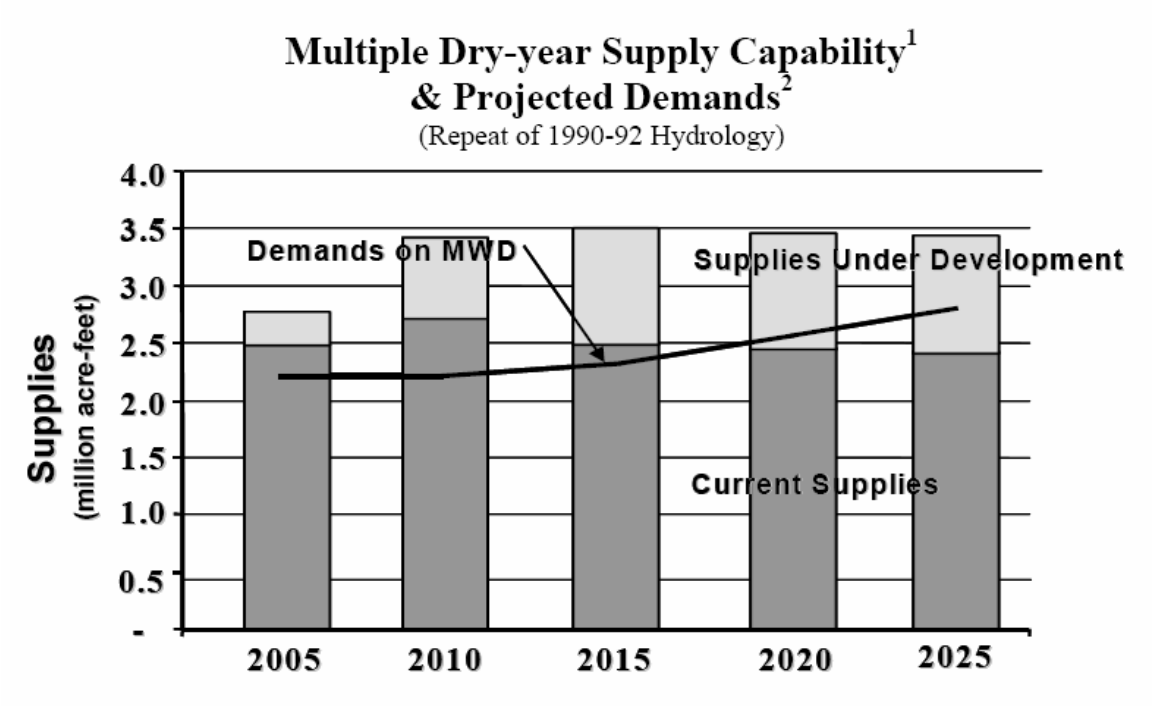
Figure 10-1



[1]From MWD's Draft UWMP (Sept 2005). Expected supply capability for resource programs.
[2]CRA deliveries limited to 1.2 MAF per year.