2. ANNUAL OWENS VALLEY OPERATIONS PLAN FOR Runoff Year 2005-06

2. ANNUAL OWENS VALLEY OPERATIONS PLAN FOR Runoff Year 2005-06

This year's pumping program is consistent with the management strategy of the Water Agreement between the County of Inyo and the City of Los Angeles dated October 18, 1991. As stated in the Water Agreement: "The overall goal of managing the water resources within Inyo County is to avoid certain described decreases and changes in vegetation and to cause no significant effect on the environment which cannot be acceptably mitigated while providing a reliable supply of water for export to Los Angeles and for use in Inyo County."

2.1 Owens Valley Runoff Estimate

For the period of April 1, 2005 to March 31, 2006, the forecasted Owens Valley runoff is 527,200 acre-feet, or 128% of normal (Table 1). According to the well ON/OFF provisions of the Water Agreement, approximately 151,000 acre-feet of water (Table 5) are available for groundwater pumping from Owens Valley wellfields.

2.2 Owens Valley Groundwater Production

The LADWP has developed a proposed 2005-2006 Annual Operations Plan based upon the goals and principles of the Water Agreement. The proposed 2005-2006 Annual Operations Plan focuses on avoiding undesirable decreases and changes in vegetation while providing a reliable supply of water for export to Los Angeles and for use in Inyo County. This year due to operation requirements of the LAA, during the first four months (April, May, June, and July) LADWP will be spreading water in the Laws, Big Pine, and alluvial fan near the Independence Wellfield.

LADWP's planned pumping under the terms of the Inyo County/LADWP Water Agreement is similar to the long-term average pumping from Owens Valley since 1971. Figure 1 shows Owens Valley Groundwater Pumping from 1971-72 to the proposed pumping for the 2005-2006 runoff year. In considering the ON/OFF protocols of the Water Agreement which provide for approximately 151,000 acre-feet of groundwater available for pumping this year, and the current condition of water-dependent resources in the Owens Valley, LADWP is planning Owens Valley pumping for the 2005-2006 runoff year of up to 90,000 acre-feet. This is less than 60% of pumping allowed under the ON/OFF provisions of the Green Book.

Planned pumping may be increased to provide freeze protection for the Los Angeles Aqueduct. Historically, freeze protection pumping has occurred only 2 or 3 times in 10 years.

The attached tables provide detailed information on pumping and uses.

Consistent with the goals of the Water Agreement, pumping in all areas is within the allowable limits and consistent with the groundwater mining provisions of the Green Book. Table 2 shows the latest update of the mining calculations based on the

procedures described in the Green Book. Inyo County and LADWP are discussing review and update of the Green Book procedures for preparing and updating the mining table.

Table 3 details planned pumping for the 2005-2006 runoff year on a month-to-month basis for each wellfield. Pumping for town domestic use is included in that distribution.

Table 4 lists the April 2005 soil water status and projected soil water for each monitoring site using the methodology described in the Green Book.

Table 5 lists monitoring sites, production wells associated with each monitoring site, available production capacity according to the ON/OFF status as described in the Water Agreement, and proposed pumping from each wellfield in the Owens Valley. Since October 2004 sites LA1, LA2, BP3, and TS3 have changed from OFF to ON status.

The following is a discussion of the proposed pumping program by wellfield. Figures 2 through 8 detail LADWP's Owens Valley wellfields. The total planned Owens Valley groundwater pumping for the 2005-2006 runoff year is 90,000 acre-feet. This number is consistent with the provisions of the Water Agreement.

2.2.1 Laws Wellfield (Figure 2)

Monitoring sites L1 and L2 are in ON status. Production wells controlled by these monitoring sites have an available production capacity of 24,180 acre-feet. Wells linked to monitoring site L5 have a capacity of 9,410 acre-feet. Exempt wells within the Laws Wellfield have a capacity of 2,320 acre-feet. Total capacity in the Laws Wellfield is 35,910 acre-feet available based on ON/OFF status. Minimum pumping in this wellfield is 6,350 acre-feet to supply the irrigated land in the Laws Wellfield if water diverted from the Owens River is not available. When Owens River water is diverted in the McNally canals and is available, the minimum pumping for town supply and irrigation is approximating 1,340 acre-feet. As 2005-2006 is forecasted to be a high runoff year and as a result of operational requirements of LAA, LADWP will be spreading Owens River water in the Laws Wellfield through the Upper and Lower McNally canals. Depending on the amount of spreading, LADWP may pump some the wells associated with Monitoring sites L1 and L2 in the second half of the year. Therefore, LADWP is planning to pump 12,350 acre-feet of groundwater from the Laws Wellfield for the 2005-2006 runoff year.

2.2.2 Bishop Wellfield (Figure 3)

Pumping from the Bishop Wellfield is governed by the provisions of the Hillside Decree. Provisions of the Hillside Decree allow LADWP to pump an amount equal to the water use on LADWP-owned land within the Bishop Cone area. LADWP operations in the Bishop Cone area will be in accordance with the provisions of the Hillside Decree. Total current available pumping capacity in the Bishop Wellfield is 12,000 acre-feet. The planned pumping from the Bishop Wellfield in 2005-2006 runoff year is 12,000 acre-feet.

Table 1

2005 RUNOFF FORECAST April 1, 2005

APRIL THROUGH SEPTEMBER RUNOFF

		ROBABLE LUE (% of Avg.)	REASONABLE MAXIMUM (<u>% of Avq.</u>)	REASONABLE MINIMUM (<u>% of Avq.</u>)	LONG-TERM MEAN (1951 - 2000) (Acre-feet)
MONO BASIN:	142,300	136%	149%	124%	104,277
OWENS VALLEY:	407,600	134%	147%	121%	305,167

APRIL THROUGH MARCH RUNOFF

		ROBABLE	REASONABLE MAXIMUM	REASONABLE MINIMUM	LONG-TERM MEAN (1951 - 2000)
	(Acre-feet)	(% of Avg.)	(<u>% of Avg.</u>)	(<u>% of Avg.</u>)	(Acre-feet)
MONO BASIN:	161,500	132%	145%	119%	122,557
OWENS VALLEY:	527,200	128%	140%	115%	413,210

MOST PROBABLE - That runoff which is expected if median precipitation occurs after the forecast date.

REASONABLE MAXIMUM - That runoff which is expected to occur if precipitation subsequent to the forecast is equal to the amount which is exceeded on the average once in 10 years.

REASONABLE MINIMUM - That runoff which is expected to occur if precipitation subsequent to the forecast is equal to the amount which is exceeded on the average 9 out of 10 years.

Table 2 - DRAFT Summary of Estimated Recharge and Historical Pumping in AF for Water Year 1986-2005

Recharge Pumping Recharge Pumping<	<u> </u>	Water	SWAI	S/	RISHOP	OP	BIG PINE	N.F.	TABOOSE-THIBALIT	THIBAIIT	IND-SYM-BAIRS	-BAIRS	I ONE PINE	PINE	OWENS VALLEY	ALLEV
rechange Pumping Pumping Pumping Pumping Pumping <th></th> <th>water</th> <th></th> <th></th> <th>1</th> <th></th> <th>7</th> <th></th> <th>IMBOORE</th> <th></th> <th>11 12 - 21 1N</th> <th></th> <th></th> <th></th> <th>OWENS V</th> <th>ALLE1 .</th>		water			1		7		IMBOORE		11 12 - 21 1N				OWENS V	ALLE1 .
(2) (3) (4) (4) (5) <th></th> <th>Year</th> <th>Recharge</th> <th>Pumping</th> <th></th> <th>Pumping</th> <th></th> <th>Pumping</th> <th>Recharge</th> <th>Pumping</th> <th>Recharge</th> <th>Pumping</th> <th>Recharge</th> <th>Pumping</th> <th>Recharge</th> <th>Pumping</th>		Year	Recharge	Pumping		Pumping		Pumping	Recharge	Pumping	Recharge	Pumping	Recharge	Pumping	Recharge	Pumping
1,239 2,530 2,530 20,530 1,405 2,534 2,504 20,534 20,534 1,405 2,538 22,816 4,491 20,534 20,536 1,539 38,443 9,558 22,816 4,491 20,546 61,545 26,341 1,776 38,025 38,025 36,728 10,900 20,629 40,830 25,906 61,545 26,341 1,880 27,988 34,198 11,432 17,604 29,666 19,777 33,488 22,544 1,320 11,326 18,729 21,168 21,777 33,488 22,544 1,347 8,907 14,671 8,404 27,785 22,627 33,799 24,348 1,794 21,206 27,785 22,627 37,379 19,424 38,893 1,115 10,193 10,183 21,970 42,348 23,580 43,889 1,115 10,180 33,432 24,331 42,408 19,906 48,837		1086	31 217	(c) 0.053		1 800	700 77	25.054	26 535	27 375	58 780	7.877	10010	7 130	075 800	CCN NT
2.339 38,025 36,443 9,530 22,344 35,900 29,330 2.339 38,025 36,748 10,900 20,629 40,830 25,906 61,545 26,341 2.80 27,988 34,198 11,432 17,604 29,666 19,777 33,480 22,344 3.80 27,988 34,198 11,319 18,729 21,168 21,087 29,136 24,965 3.87 8,907 34,915 11,326 18,596 24,345 20,829 23,761 24,348 3.96 7,541 44,671 8,404 27,785 22,627 35,379 19,424 38,893 3.044 21,206 36,019 10,193 19,634 24,962 22,288 23,571 24,348 3.115 7,053 36,019 10,193 19,634 24,062 22,288 23,571 24,348 3.044 21,266 31,341 42,408 19,906 48,837 24,102 3.05		1007	12,217	00000		1,660	7,000	44,003	00,000	22,12	20,400	240,1	122,12	7,40	•	11,47
1,539 38,025 36,728 10,900 20,629 40,830 25,906 61,545 26,341 1,776 38,167 36,728 10,900 20,629 40,830 25,906 61,545 26,341 1,780 27,988 34,198 11,432 17,604 29,666 19,777 33,480 22,544 1,32 13,691 34,868 11,519 18,729 21,108 21,087 29,136 24,965 1,877 8,907 34,915 11,326 18,596 24,345 20,829 23,761 24,348 1,964 21,206 36,019 10,193 19,634 24,962 22,288 23,557 26,226 1,115 7,053 50,980 9,153 38,788 21,970 46,375 17,121 52,809 1,606 11,535 50,980 9,153 33,432 24,381 42,408 19,906 48,837 1,525 8,349 50,176 9,606 33,678 24,026 47,149		1987	12,403	611,67	38,443	8,538	77,810	44,991	29,544	33,900	29,330	54,754	12,195	1,950	144,930	1 / 0,444
7.776 38,167 36,679 11,961 19,966 35,915 23,439 54,284 26,018 5.80 27,988 34,198 11,432 17,604 29,666 19,777 33,480 22,544 7.132 13,691 34,868 11,519 18,729 21,168 21,087 29,136 24,965 7.87 8,907 34,915 11,326 18,596 24,345 20,829 23,761 24,965 7.796 7,541 44,671 8,404 27,785 22,627 35,379 19,424 38,893 7.044 21,206 36,019 10,193 19,634 24,962 22,288 23,379 19,424 38,893 7.044 21,206 36,019 10,193 19,634 24,962 22,288 23,357 26,226 7.115 7,053 38,81 47,799 38,748 24,032 47,149 49,854 8.246 11,697 40,270 23,729 47,156 16,496 54,102		1988	12,539	38,025	36,728	10,900	20,629	40,830	25,906	61,545	26,341	43,234	11,295	1,655	133,439	196,189
,580 27,988 34,198 11,432 17,604 29,666 19,777 33,480 22,544 ,132 13,691 34,868 11,519 18,729 21,168 21,087 29,136 24,965 ,887 8,907 34,915 11,326 18,596 24,345 20,829 23,761 24,965 ,796 7,541 44,671 8,404 27,785 22,627 35,379 19,424 38,893 ,044 21,206 36,019 10,193 19,634 24,962 22,238 23,557 26,226 ,115 7,053 53,861 4,799 38,758 21,970 46,375 17,121 52,809 ,606 11,535 50,980 9,153 33,432 24,331 42,408 19,906 48,837 ,506 11,697 42,388 8,672 28,013 21,832 21,74 49,854 ,510 42,388 8,672 28,013 21,832 24,36 17,408 19,406 54,		1989	12,776	38,167	36,679	11,961	19,966	35,915	23,439	54,284	26,018	34,728	11,104	1,668	129,982	176,723
1,132 13,691 34,868 11,519 18,729 21,168 21,087 29,136 24,965 1,877 8,907 34,915 11,326 18,596 24,345 20,829 23,761 24,348 1,796 7,541 44,671 8,404 27,785 22,627 35,379 19,424 38,893 1,044 21,206 36,019 10,193 19,634 24,962 22,288 23,557 26,226 1,115 7,053 53,861 4,799 38,758 21,970 46,375 17,121 52,809 1,160 10,193 9,606 33,678 24,002 43,149 21,774 49,834 1,255 8,349 7,159 40,270 23,729 47,156 16,496 54,102 1,254 1,697 42,313 20,212 27,567 23,143 34,068 1,254 42,388 8,672 28,013 20,212 27,567 23,143 34,068 1,255 2,298 3		1990	11,580	27,988	34,198	11,432	17,604	29,666	19,777	33,480	22,544	20,124	6,689	1,658	115,692	124,348
1,877 8,907 34,915 11,326 18,596 24,345 20,829 23,761 24,348 1,796 7,541 44,671 8,404 27,785 22,627 35,379 19,424 38,893 1,044 21,206 36,019 10,193 19,634 24,962 22,288 23,557 26,226 1,115 7,053 53,861 4,799 38,758 21,970 46,375 17,121 52,809 1,606 11,535 50,980 9,153 33,432 24,331 42,408 19,906 48,837 1,607 4,799 38,778 24,002 43,149 21,714 49,854 1,021 4,037 24,020 23,729 47,156 16,496 54,102 1,102 3,974 40,270 23,729 47,156 16,496 54,102 1,102 4,238 8,672 28,013 20,212 27,567 23,143 34,068 1,259 3,248 10,104 22,695 26	1	1991	11,132	13,691	34,868	11,519	18,729	21,168	21,087	29,136	24,965	10,390	10,408	1,303	121,188	87,207
7,796 7,541 44,671 8,404 27,785 22,627 35,379 19,424 38,893 3,044 21,206 36,019 10,193 19,634 24,962 22,288 23,557 26,226 3,115 7,053 53,861 4,799 38,758 21,970 46,375 17,121 52,809 3,606 11,535 50,980 9,153 33,432 24,331 42,408 19,906 48,837 3,513 470 53,999 7,159 40,270 23,729 47,156 16,496 54,102 3,546 1,697 42,388 8,672 28,013 21,832 32,426 16,496 54,102 3,546 1,697 42,388 8,672 28,013 21,832 32,426 16,496 54,102 3,546 1,697 42,373 20,212 27,567 23,143 34,068 3,539 10,804 23,213 20,212 27,807 25,38 26,806 454 5,786 </td <th></th> <td>1992</td> <td>10,877</td> <td>8,907</td> <td>34,915</td> <td>11,326</td> <td>18,596</td> <td>24,345</td> <td>20,829</td> <td>23,761</td> <td>24,348</td> <td>14,154</td> <td>10,533</td> <td>1,626</td> <td>120,098</td> <td>84,119</td>		1992	10,877	8,907	34,915	11,326	18,596	24,345	20,829	23,761	24,348	14,154	10,533	1,626	120,098	84,119
7,044 21,206 36,019 10,193 19,634 24,962 22,288 23,557 26,226 3,115 7,053 53,861 4,799 38,758 21,970 46,375 17,121 52,809 5,606 11,535 50,980 9,153 33,432 24,331 42,408 19,906 48,837 5,255 8,349 50,176 9,606 33,678 24,002 43,149 21,774 49,854 5,213 470 53,999 7,159 40,270 23,729 47,156 16,496 54,102 5,546 1,697 42,388 8,672 28,013 20,212 27,267 23,143 34,068 1,02 3,974 39,539 10,804 23,213 20,212 27,567 23,143 34,068 2,29 2,296 2,298 26,785 26,785 26,806 27,387 26,806 3,454 5,786 11,407 21,126 26,149 23,292 25,159 26,129		1993	19,796	7,541	44,671	8,404	27,785	22,627	35,379	19,424	38,893	11,689	15,622	1,519	182,146	71,204
5,115 7,053 53,861 4,799 38,758 21,970 46,375 17,121 52,809 5,606 11,535 50,980 9,153 33,432 24,331 42,408 19,906 48,837 5,255 8,349 50,176 9,606 33,678 24,002 43,149 21,774 49,854 5,246 1,697 42,388 8,672 28,013 21,832 32,426 16,496 54,102 5,546 1,697 42,388 8,672 28,013 21,832 32,426 16,700 38,600 5,102 3,974 39,539 10,804 23,213 20,212 27,567 23,143 34,068 5,259 2,295 26,785 26,785 27,800 17,247 31,299 5,454 5,786 11,407 21,883 25,885 26,166 27,387 30,341 5,253 176 49,754 2,237 34,553 9,294 42,372 11,561 44,979 658 <th></th> <td>1994</td> <td>12,044</td> <td>21,206</td> <td>36,019</td> <td>10,193</td> <td>19,634</td> <td>24,962</td> <td>22,288</td> <td>23,557</td> <td>26,226</td> <td>14,878</td> <td>11,667</td> <td>1,281</td> <td>127,879</td> <td>96,077</td>		1994	12,044	21,206	36,019	10,193	19,634	24,962	22,288	23,557	26,226	14,878	11,667	1,281	127,879	96,077
7,506 11,535 50,980 9,153 33,432 24,331 42,408 19,906 48,837 5,255 8,349 50,176 9,606 33,678 24,002 43,149 21,774 49,854 5,246 1,697 42,388 8,672 28,013 21,832 32,426 16,496 54,102 5,246 1,697 42,388 8,672 28,013 21,832 32,426 16,496 54,102 5,246 1,697 42,388 8,672 28,013 21,832 32,426 16,700 38,600 5,259 2,294 39,539 10,804 23,213 20,212 27,567 23,143 34,068 5,259 2,295 38,772 10,176 22,695 26,785 22,807 25,288 26,806 5,454 5,786 11,407 21,883 25,885 26,166 27,387 30,341 5,138 7,412 37,149 11,777 21,126 26,149 23,292 25,159 <		1995	28,115	7,053	53,861	4,799	38,758	21,970	46,375	17,121	52,809	12,631	22,296	1,037	242,214	64,611
5,255 8,349 50,176 9,606 33,678 24,002 43,149 21,774 49,854 5,213 470 53,999 7,159 40,270 23,729 47,156 16,496 54,102 5,546 1,697 42,388 8,672 28,013 21,832 32,426 16,700 38,600 1,02 3,974 39,539 10,804 23,213 20,212 27,567 23,143 34,068 1,259 2,295 38,772 10,176 22,695 26,785 27,960 17,247 31,299 1,202 3,480 11,407 21,883 25,885 26,166 27,387 30,341 1,138 7,412 37,149 11,777 21,126 26,149 23,292 25,159 26,129 1,658 176 49,754 2,237 34,553 9,294 42,372 11,561 44,979 1,658 176 243,484 11,777 21,126 26,149 23,292 25,159 26,1	·	1996	12,606	11,535	50,980	9,153	33,432	24,331	42,408	19,906	48,837	12,382	19,870	1,106	208,134	78,413
5,213 470 53,999 7,159 40,270 23,729 47,156 16,496 54,102 5,546 1,697 42,388 8,672 28,013 21,832 32,426 16,700 38,600 1,102 3,974 39,539 10,804 23,213 20,212 27,567 23,143 34,068 2,259 2,295 36,772 10,176 22,695 26,785 27,960 17,247 31,299 3,454 5,786 38,486 11,407 21,883 25,885 26,166 27,387 30,341 4,54 5,786 11,407 21,126 26,149 23,292 25,159 26,129 4,658 176 49,754 2,237 34,553 9,294 42,372 11,561 44,979 4,16 243,484 11,777 21,126 26,149 23,292 25,159 26,129 4,658 176 49,754 2,237 34,553 9,294 42,372 11,561 44,979 <tr< td=""><th></th><td>1997</td><td>15,255</td><td>8,349</td><td>50,176</td><td>9,606</td><td>33,678</td><td>24,002</td><td>43,149</td><td>21,774</td><td>49,854</td><td>9,461</td><td>20,075</td><td>1,128</td><td>212,186</td><td>74,320</td></tr<>		1997	15,255	8,349	50,176	9,606	33,678	24,002	43,149	21,774	49,854	9,461	20,075	1,128	212,186	74,320
5,546 1,697 42,388 8,672 28,013 21,832 32,426 16,700 38,600 3,102 3,974 39,539 10,804 23,213 20,212 27,567 23,143 34,068 3,259 2,295 26,785 27,960 17,247 31,299 3,202 3,480 35,740 10,839 19,920 26,885 22,807 25,288 26,806 3,454 5,786 11,407 21,883 25,885 26,166 27,387 30,341 3,138 7,412 37,149 11,777 21,126 26,149 23,292 25,159 26,129 3,658 176 49,754 2,237 34,553 9,294 42,372 11,561 44,979 3,11 243,484 847,705 183,731 531,297 520,632 636,462 548,200 715,185		1998	28,213	470	53,999	7,159	40,270	23,729	47,156	16,496	54,102	7,946	20,455	1,365	244,195	57,165
1,102 3,974 39,539 10,804 23,213 20,212 27,567 23,143 34,068 2,259 2,295 38,772 10,176 22,695 26,785 27,960 17,247 31,299 3,202 3,480 35,740 10,839 19,920 26,885 22,807 25,288 26,806 454 5,786 38,486 11,407 21,883 25,885 26,166 27,387 30,341 138 7,412 37,149 11,777 21,126 26,149 23,292 25,159 26,129 4658 176 49,754 2,237 34,553 9,294 42,372 11,561 44,979 416 243,484 847,705 183,731 531,297 520,632 636,462 548,200 715,185		1999	18,546	1,697	42,388	8,672	28,013	21,832	32,426	16,700	38,600	8,424	15,481	2,141	175,454	59,466
7,2592,29538,77210,17622,69526,78527,96017,24731,2993023,48035,74010,83919,92026,88522,80725,28826,8064545,78638,48611,40721,88325,88526,16627,38730,34131387,41237,14911,77721,12626,14923,29225,15926,129365817649,7542,23734,5539,29442,37211,56144,979316243,484847,705183,731531,297520,632636,462548,200715,185		2000	11,102	3,974	39,539	10,804	23,213	20,212	27,567	23,143	34,068	8,497	14,344	1,036	149,834	67,666
.202 3.480 35,740 10,839 19,920 26,885 22,807 25,288 26,806 .454 5,786 38,486 11,407 21,883 25,885 26,166 27,387 30,341 .138 7,412 37,149 11,777 21,126 26,149 23,292 25,159 26,129 .658 176 49,754 2,237 34,553 9,294 42,372 11,561 44,979 .916 243,484 847,705 183,731 531,297 520,632 636,462 548,200 715,185		2001	12,259	2,295	38,772	10,176	22,695	26,785	27,960	17,247	31,299	8,685	13,520	1,942	146,504	67,130
.454 5,786 38,486 11,407 21,883 25,885 26,166 27,387 30,341 .138 7,412 37,149 11,777 21,126 26,149 23,292 25,159 26,129 .658 176 49,754 2,237 34,553 9,294 42,372 11,561 44,979 .916 243,484 847,705 183,731 531,297 520,632 636,462 548,200 715,185		2002	11,202	3,480	35,740	10,839	19,920	26,885	22,807	25,288	26,806	10,279	12,216	1,345	128,691	78,116
.138 7,412 37,149 11,777 21,126 26,149 23,292 25,159 26,129 .658 176 49,754 2,237 34,553 9,294 42,372 11,561 44,979 .916 243,484 847,705 183,731 531,297 520,632 636,462 548,200 715,185		2003	11,454	5,786	38,486	11,407	21,883	25,885	26,166	27,387	30,341	14,281	13,088	1,179	141,418	85,925
7,658 176 49,754 2,237 34,553 9,294 42,372 11,561 44,979 .916 243,484 847,705 183,731 531,297 520,632 636,462 548,200 715,185		2004	11,138	7,412	37,149	11,777	21,126	26,149	23,292	25,159	26,129	15,750	6,697	1,118	128,531	87,365
.916 243,484 847,705 183,731 531,297 520,632 636,462 548,200 715,185		2005 (a)	17,658	176	49,754	2,237	34,553	9,294	42,372	11,561	44,979	11,207	16,649	199	205,966	34,674
Estimated Apr-Sep		(b)TOTAL		243,484	847,705	183,731	531,297	520,632	636,462	548,200	715,185	310,836	291,722	28,701	3,334,288	1,835,584
	_	Estimated A	vpr-Sep							,						
Pumping Limit 68,432 663,974 10,665 88,262 ²	_	Pumping Li	mit	68,432		663,974		10,665		88,262		404,349		263,021		1,498,704

⁽a) Estimated Recharge for the 2005 Water Year; Approximate Pumping for First Half of Water year 2005 (Oct-Mar).

⁽b) Estimated 20 Year Total for Recharge; actual 19.5 Year Total for Pumping. (c) Estimated pumping is from LADWP database.

Table 3 - Projected Monthly Owens Valley Groundwater Pumping [ac-ft] for Runoff Year 2005-2006

Laws Bishop Big Pine Aberdeen Sawmill IndepOak 250 1,600 1,600 35 1,050 900 400 1,600 1,700 35 1,050 900 400 1,600 1,700 35 1,050 900 1,800 1,800 1,800 1,030 1,050 900 1,700 1,600 1,800 1,030 1,050 900 1,700 1,600 1,800 1,030 1,050 900 1,700 1,600 1,600 1,030 1,210 1,000 1,100 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,026<					Taboose-	Thibaut-		Symmes-	Bairs-	Lone	
250 1,600 1,600 35 1,050 900 400 1,600 1,700 35 1,050 900 400 1,600 1,700 35 1,050 900 1,700 1,600 1,800 1,030 1,050 900 1,700 1,600 1,800 1,030 1,050 900 1,200 1,600 1,800 1,030 1,210 1,000 1,200 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,026 400 2,170 1,030 1,210 1,000 1,026 <t< th=""><th>Month</th><th>Laws</th><th>Bishop</th><th></th><th>Aberdeen</th><th>Sawmill</th><th>Indep0ak</th><th>Shepherd</th><th>Georges</th><th>Pine</th><th>TOTAL</th></t<>	Month	Laws	Bishop		Aberdeen	Sawmill	Indep0ak	Shepherd	Georges	Pine	TOTAL
400 1,600 1,700 35 1,050 900 400 1,600 1,700 35 1,050 900 1,800 1,800 35 1,050 900 1,700 1,600 1,800 1,030 1,050 900 1,400 1,600 1,600 1,030 1,050 900 1,200 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,300 1,036 1,210 1,356 1,200 1,300	April	250	1,600	1,600	35	1,050	900	200	150	150	5,935
400 1,600 1,700 35 1,050 900 1,800 1,800 35 1,050 900 1,700 1,600 1,800 1,050 900 1,400 1,600 1,030 1,050 900 1,200 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,026 400 2,070 1,030 1,210 1,000 1,026 400 2,070 1,030	May	400	1,600	1,700	35	1,050	800	200	0	490	6,375
1,800 1,800 35 1,050 900 1,700 1,800 1,030 1,050 900 1,400 1,600 1,600 1,030 1,050 900 1,200 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,300 1,026 1,030 1,210 1,300 1,300	June	400	1,600	1,700	35	1,050	900	200	330	150	6,365
1,700 1,600 1,800 1,030 1,050 900 1,400 1,600 1,600 1,030 1,050 900 1,200 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,026 400 2,070 1,030 1,210 1,000 1,026 400 2,070 1,030 1,210 1,000 1,026 1,030 1,210 1,000 1,000	July	1,800	1,600	1,800	35	1,050	900	200	330	200	7,915
1,400 1,600 1,600 1,600 1,030 1,050 900 1,200 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,026 400 2,170 1,030 1,210 1,000 1,026 400 2,170 1,030 1,210 1,000 1,036 1,210 1,200 1,300 1,200	August	1,700	1,600	1,800	1,030	1,050	800	200	330	200	8,810
1,200 400 2,170 1,030 1,210 1,000 1,100 400 2,070 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,300 1,036 1,210 1,300 1,200 1,300	September	1,400	1,600	1,600	1,030	1,050	800	200	0	150	7,930
1,100 400 2,070 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,300 1250 12,000 2,170 1,030 1,300 1250 12,000 2,170 1,300	October	1,200	400	2,170	1,030	1,210	1,000	560	0	50	7,620
1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,170 1,030 1,210 1,300 12,350 12,000 23,020 8,380 13,580 11,700 4,5	November	1,100	400	2,070	1,030	1,210	1,000	560	330	50	7,750
1,025 400 2,170 1,030 1,210 1,000 1,025 400 2,070 1,030 1,210 1,000 1,025 400 2,170 1,030 1,300 12,000 2,170 1,030 1,300 12,000 2,000 2,000 2,000	December	1,025	400	2,170	1,030	1,210	1,000	580	330	50	7,775
1,025 400 2,070 1,030 1,210 1,000 1,	January	1,025	400	2,170	1,030	1,210	1,000	580	330	50	7,775
1,025 400 2,170 1,030 1,210 1,300 1,200 1,300 1,	February	1,025	400	2,070	1,030	1,210	1,000	580	330	50	7,675
12.350	March	1,025	400	2,170	1,030	1,210	1,300	560	330	50	8,075
00010	TOTAL	12,350	12,000	23,020	8,380	13,560	11,700	4,560	2,790	1,640	90,000

Figure 1 – Owens Valley Groundwater Pumping

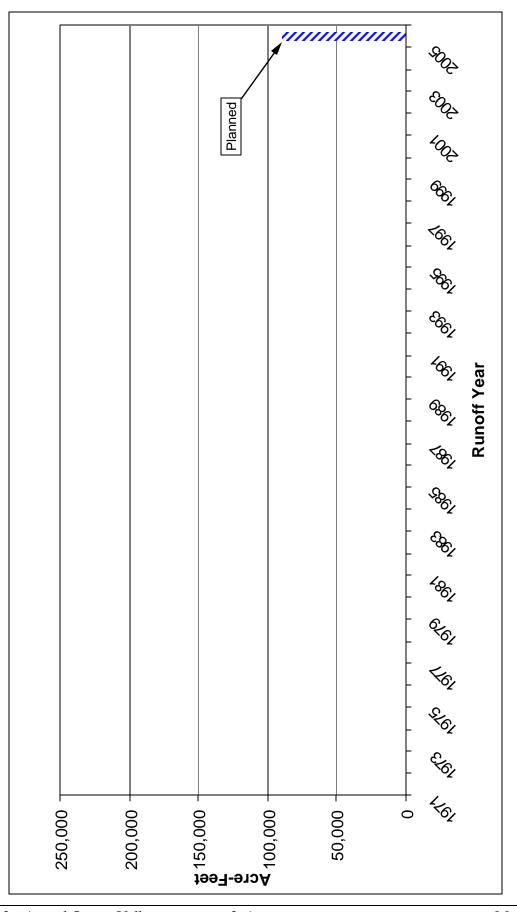


Table 4 - Soil/ Vegetation Water Balance Calculations

	Oct 2004	50% Annual	Projected	Oct. 2004 Veg. Water Reg./ Water Reg. for	Oct 2004	April 2005	April 2005	Soil AWC Reg.
Site	Soil AWC	Precip.	Soil AWC (cm)	Well Turn-On (cm)	Status	Soil AWC (cm)	Status	for Well Turn-On
L1	1.6	NA		9.6/9.6	OFF	12.5	NO	na
L2	3.4	7.9		6.7/NA	NO	14.0	NO	na
က	<u>0</u>	Y Y	<u>ق</u> 0	11.7/26.3	OFF	25.5	OFF	26.3, OFF 10-99
BD-1	6.0	Y Z	6.0	5/22.9*	0FF	7.9	0FF	22.9*, OFF 10-97
BP2	0.3	NA		17.7/28.4	OFF	9.9	OFF	28.4, OFF 7-98
ВРЗ		NA		11.5/11.5	OFF	17.7	NO	NA
BP4	29.6	8.2		10.8/NA	Z	40.5	Z	AN
TA3	3.5	NA		25.6 / 25.9	OFF	17.0		25.9, OFF 7-98
TA4	7.1	ZA		19.4 / 23.2	OFF	18.5		23.2, OFF 10-98
TA5	18.0	8.2		2.4/NA	NO	24.6		NA
TA6	5.0	AZ AZ	5.0	33.3 / 26.8*	OFF	20.0	OFF	26.8*, OFF 7-96
<u>V</u>	О.О	4	ص 0		940	11.2	OFF	20.4*. OFF 10-96
TS2	4.3	NA		11.3/19.5	OFF	17.4		19.5, OFF 7-98
TS3	13.8	7.3			OFF	29.7		NA
TS4	25.5	AN		67.1/47.9	OFF	45.7	OFF	47.9, OFF 10-03
5	13.6	AZ			OFF	27.3	OFF	42.2, OFF 10-98
102	3.0	NA		4.7/11.1	OFF	8.0	NO	NA
SS1	20.8	6.5	**************************************	27.2 / NA	NO	27.9		NA
SS2	2.2	AZ AZ	2.2	6.9/13.4	OFF	7.6	OFF	13.4, OFF 7-03
SS3	16.5	AZ AZ		16.4/37.7	OFF	22.7		37.7, OFF 10-03
SS4	9.7	6.6	16.3	5.6/NA	NO	13.2		NA
BG2	25.7	9.9	32.3	4.7 / NA	Z	30.4	Z	₩.
F +			:				:	

* These values of soil water required for well turn-on were derived using calculations based on percent cover that were routinely performed in the past. The values have not been updated to conform to the Greenbook equations in section III.D.2, p. 57-59.

Table 5 - Available Pumping Capacity According to Monitoring Sites with ON Status and Planned Pumping for Runoff Year 2005-2006

Wellfield	Monitoring Site	Associated production wells	Available Capacity (AF)	Proposed Pumping (AF)
LAWS	L1	247, 248, 249, 398	12,670	
	L2	236, 239, 243, 244	11,512	
	L5*	245, 387, 388	9,412	
	Exempt	354, 365, 413	2,317	
	Wellfield Pur	mpage	35,911	12,350
Bishop	All wells	140, 207, 238, 371, 406, 407, 408, 412	12,000	
	Wellfield Pur	mpage	12,000	12,000
Big Pine	BP3	222, 223, 231, 232	4,851	
	BP4	331	7,530	
	Exempt	218, 219, 330, 332, 341, 352, 415	25,486	
	Wellfield Pur	mpage	37,867	23,020
Taboose	TA5	349	10,570	
Aberdeen	Exempt	118	1,810	
	Wellfield Pur	npage	12,380	8,380
Thibaut	TS3	103, 104, 382EM	2,968	
Sawmill	Exempt	351, 356	12,598	
	Wellfield Pur	mpage	15,566	13,560
Indep Oak	IO2	63	2,100	
-	Exempt	59, 60, 61, 65, 357, 383EM, 384EM, 401	13,973	
	Wellfield Pur	npage	16,073	11,700
Symmes	SS1	69, 392, 393	7,964	
Shepherd	SS4	75, 345	6,009	
•	Exempt	402EM	1,230	
	Wellfield Pur	npage	15,203	4,560
Bairs	BG2	348, 403	2,896	
Georges	Exempt	343	1,158	
	Wellfield Pur		4,054	2,790
Lone Pine	Exempt	344, 346, 390	1,231	
	Other	416	365	
	Wellfield Pur		1,596	1,640
	Owens Valle	ey Total	150,650	90,000

^{*} Monitoring site has yet to be located.

Figure 2

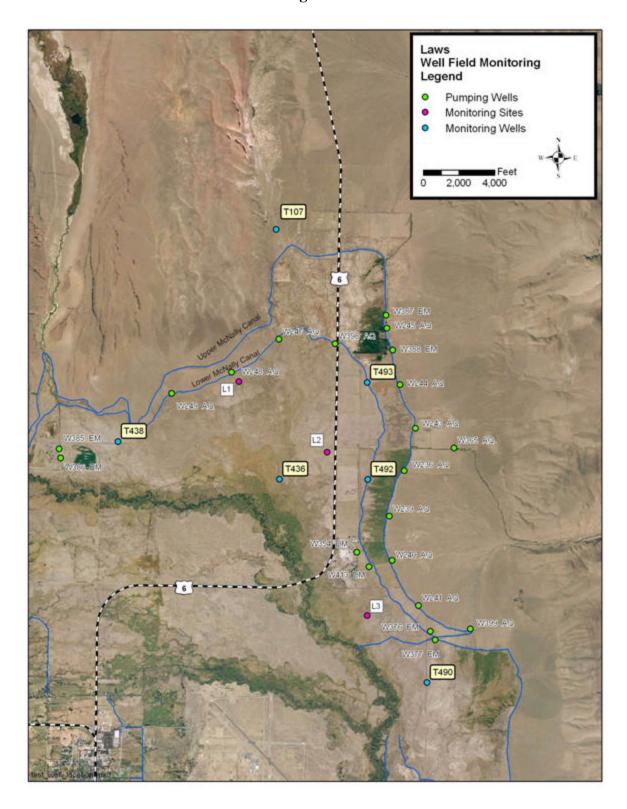
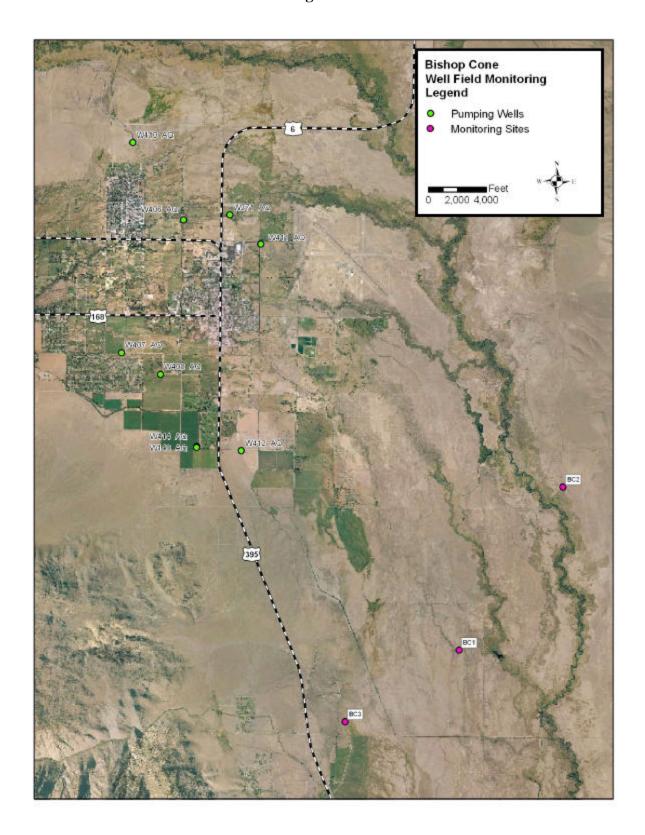


Figure 3



2.2.3 Big Pine Wellfield (Figure 4)

Monitoring sites BP3 and BP4 are in ON status. Production wells controlled by BP3 have an available production capacity of 4,850 acre-feet. The production well W331, controlled by monitoring site BP4, has a production capacity of 7,530 acre-feet but has high sulfide levels that make it unsuitable for pumping. Exempt wells W218, W219, town supply, and Fish Hatchery wells in the Big Pine Wellfield have a capacity of 25,490 acrefeet. A total capacity of 30,340 acre-feet is available in the Big Pine Wellfield based on ON/OFF status. During the 2005-06 runoff year a limitation of the pumping will be the mining limit as described in the Green Book. Based on the preliminary calculations shown in Table 2, the pumping limit for April through September of 2005 is 10,665 acrefeet. As 2005-06 is forecasted to be a high runoff year LADWP expects to spread water from Big Pine Canal in the Big Pine Wellfield as runoff conditions allows. Required pumping from the Big Pine Wellfield includes supply to the Fish Spring Fish Hatchery and the town water system on a year-round basis. Exempt wells and wells associated with monitoring site BP3 may be operated in the second half of year. The minimum required pumping in this wellfield is 20,200 acre-feet. LADWP is planning to pump 23,020 acre-feet from the Big Pine Wellfield.

2.2.4 Taboose-Aberdeen Wellfield (Figure 5)

Monitoring site TA5 is in ON status. The production well, W349, controlled by this monitoring site has an available production capacity of about 10,570 acre-feet. Exempt Well 118 in the Taboose-Aberdeen Wellfield has a capacity of 1,810 acre-feet. A total capacity of 12,380 acre-feet is available in the Taboose-Aberdeen Wellfield based on the ON/OFF status. During the first three months of the year Well 349 is going to be on a timer to maintain the water level in a pond adjacent to the well. LADWP plans to pump 8,380 acre-feet during the 2005-2006 runoff year in the Taboose-Aberdeen Wellfield.

2.2.5 Thibaut-Sawmill Wellfield (Figure 6)

Monitoring site TS3 is in ON status. Production wells controlled by this monitoring site have an available production capacity of 2,970 acre-feet. Exempt Wells 351 and 356 supplying Blackrock Fish Hatchery have a capacity of 13,000 acre-feet and 8,110 acre-feet, respectively. A total capacity of 15,970 acre-feet is available in the Thibaut-Sawmill Wellfield based on the ON/OFF status. Minimum pumping in this wellfield is 12,600 acre-feet. LADWP plans to pump 13,560 acre-feet in the Thibaut-Sawmill Wellfield during 2005-2006 runoff year.

2.2.6 Independence-Oak Wellfield (Figure 6)

Pumping from this wellfield will include exempt wells, generally for E/M projects and the town water supply. Vegetation monitoring site IO2 has ON status with a total capacity of 2,100 acre-feet. Total available capacity in Independence-Oak Wellfield is 18,000 acre-feet. Minimum pumping in this wellfield is 6,300 acre-feet. Planned pumping during the 2005-2006 runoff year in the Independence-Oak Wellfield is 11,700 acre-feet.

Figure 4

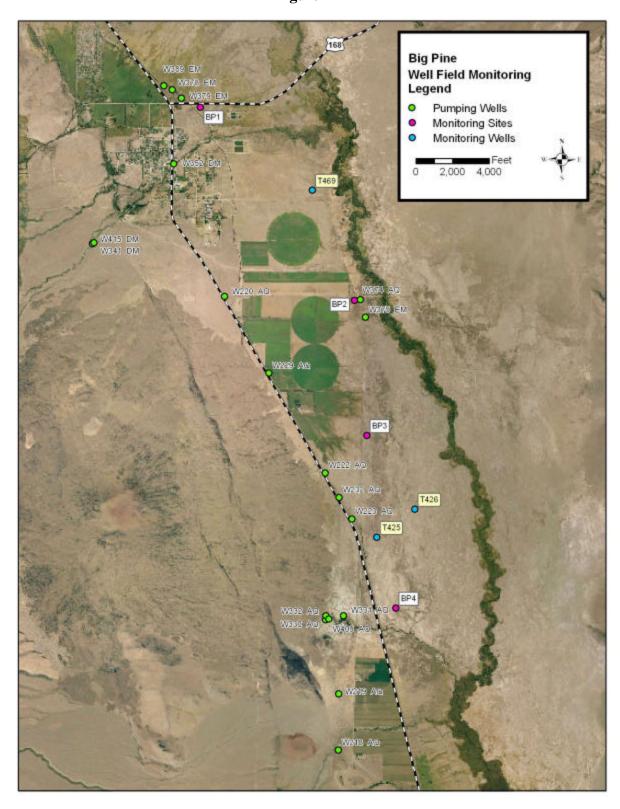


Figure 5

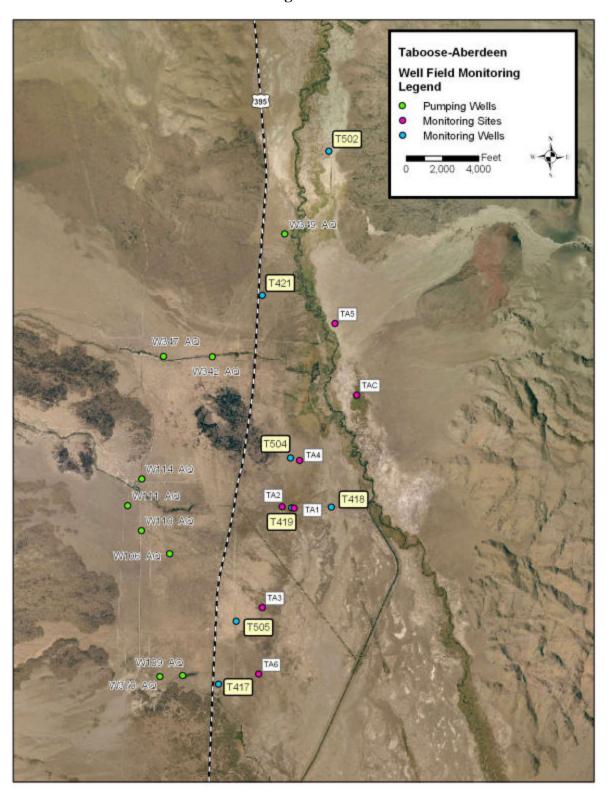
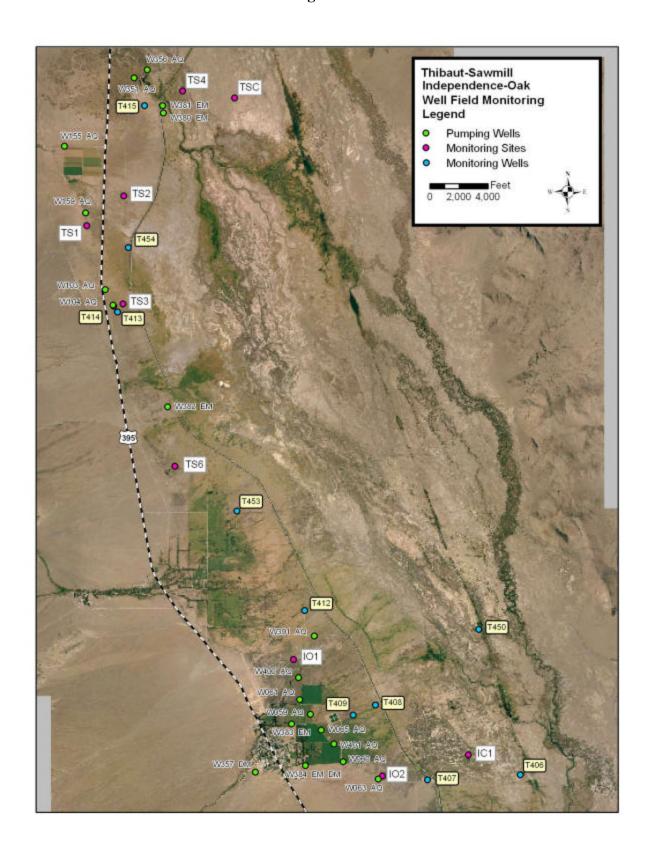


Figure 6



2.2.7 Symmes-Shepherd Wellfield (Figure 7)

Sites SS1 and SS4 are in ON status. Production wells controlled by these monitoring sites have an available production capacity of 13,970 acre-feet. Exempt Well 402 in the Symmes-Shepherd Wellfield has an available capacity of 1,230 acre-feet. A total of 15,200 acre-feet is available in the Symmes-Shepherd Wellfield based on the ON/OFF status. Minimum required pumping in this wellfield is 1,200 acre-feet. LADWP plans to pump 4,560 acre-feet during 2005-2006 runoff year in Symmes-Shepherd Wellfield.

2.2.8 Bairs-Georges Wellfield (Figure 7)

Monitoring site BG2 is in ON status. Production wells controlled by this monitoring site have an available production capacity of 2,900 acre-feet. Exempt Well 343 has a capacity of 1,158 acre-feet. A total capacity of 4,050 acre-feet is available in the Bairs-Georges Wellfield based on the ON/OFF status. LADWP is currently performing an operational test related to Reinhackle Spring. This operational testing is expected to continue in the 2005-2006 runoff year. Pumping in the Bairs-Georges Wellfield is planned to be 2,790 acre-feet in the 2005-2006 runoff year.

2.2.9 Lone Pine Wellfield (Figure 8)

Available pumping capacity in the Lone Pine Wellfield is 1,275 acre-feet, excluding the newly drilled W416. As outlined in the Green Book, LADWP has planned to operate Well 416 for one (1) month as part of the initial operation phase in the process of activating this well, pumping approximately 325 acre-feet. Minimum required pumping in this wellfield is 1,275 acre-feet. Pumping in the Lone Pine Wellfield for the 2005-2006 runoff year is planned to be 1,640 acre-feet.

2.3 Owens Valley Uses (Including Enhancement/Mitigation Projects)

Similar to runoff years 1996-1997 through 2004-2005, full allotments will be available for most Owens Valley uses in 2005-2006. Exception is the E/M project discussed below. LADWP leases will be provided with their normal allotted duty. Alfalfa and improved pasture E/M projects allotted 5 acre-feet duty will receive 5 acre-feet per acre. Native pasture E/M projects allotted 3 acre-feet duty will receive 3 acre-feet per acre. Table 6 shows the historic (1981-1982) and proposed monthly Owens Valley uses for 2005-2006. The Owens Valley uses shown on Table 6 consist of irrigation, stock water supply, recreation and wildlife uses, and E/M supply. As shown in the table, this year LADWP predicts that it will provide approximately 84,640 acre-feet for uses in the Owens Valley. LADWP is currently evaluating a program to encourage water conservation on some irrigated lands leased from LADWP.

Figure 7

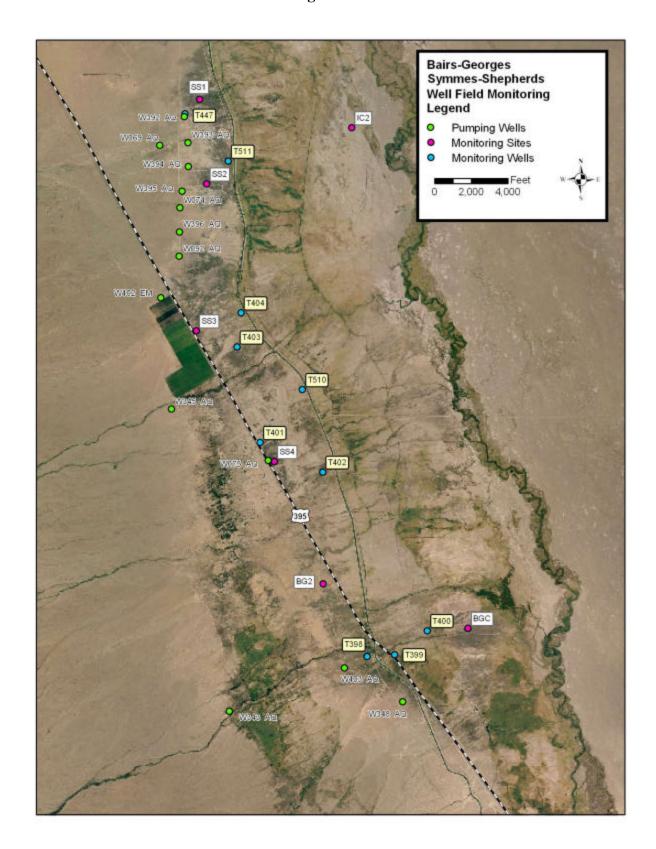


Figure 8

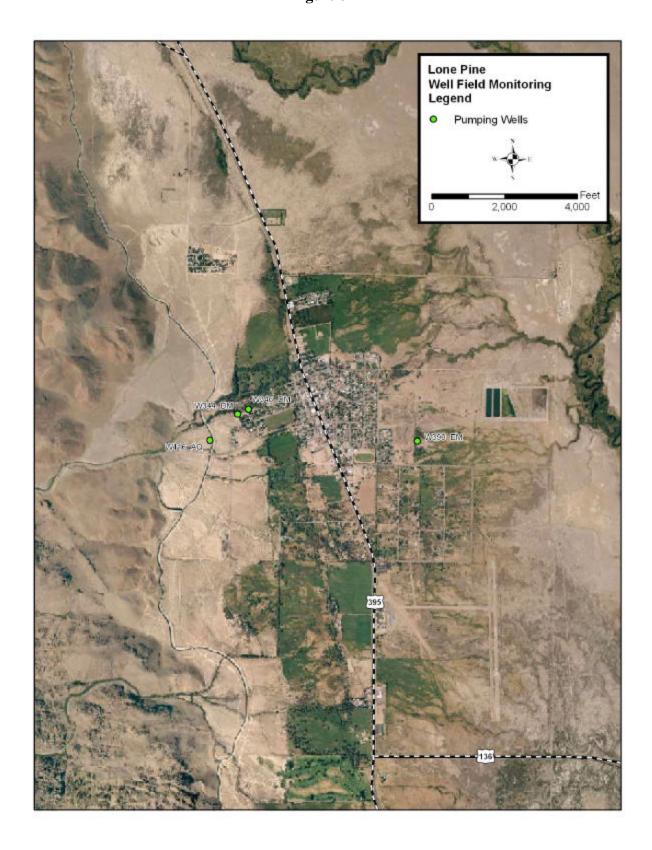


Table 6 - Historic (1981-82) and Projected (2005-2006) Water Uses in the Owens Valley [ac-ft]

,													TOTAL	IAL		
:	April	Ē	May	>	June	e.	July	<u>></u>	August	ust	September	nber	Apr-Sep	Sep		
ose e	1981	2002	1981	2002	1981	2002	1981	2002	198-1	2002	1981	2002	1981	2002		
Irrigation	3,980	4,500	7,958	9,200	10,373	066'6		9,476 10,150	8,295	8,290	6,321	5,570	46,403	47,700		
Stockwater	1,141	950	1,319	1,100	1,244	1,070	1,245	1,030	1,219	1,070	1,319	1,010	7,487	6,230		
E/M	0	1,410	0	2,540	0	2,970	0	3,800	0	3,290	0	2,090	0	16,100		
Rec. & Wildlife	379	490	804	700	1,160	730	1,455	910	1,381	840	1,406	540	6,585	4,210		
Total	5,500	7,350	Total 5,500 7,350 10,081 13,540 12,777 14,760 12,176 15,890 10,895 13,490	13,540	12,777	14,760	12,176	15,890	10,895	13,490	9,046	9,210	9,210 60,475 74,240	74,240		
													TOTAL	Ā	TOTAL	Ā
	Octo	ber	October November	nber	December	nber	January	lary	February	Jary	March	- -	Oct-Mar	Mar	Apr-Mar	Mar
Use	1981	2002	1981	2002	1981	2002	1982	5006	1982	2006	1982	2006	81-82	90-50	81-82	90-50
Irrigation	263	240	0	0		0				0	<u> </u>	0	277	240	46,680	47,940
Stockwater	1,065	930	1,045	820	1,050	930	1,007	860	1,010	750	1,098	700	6,275	4,990	13,762	11,220
E/M	0	990	0	290	0	480	0	200	0	320	0	300	0	2,580	0	18,680
Rec. & Wildlife	781	670	713	460	565	540	478	290	342	300	447	330	3,326	2,590	9,911	6,800
Total	2, 109	2,830	Total 2,109 2,830 1,758 1,570	1,570	1,615	1,950	1,485	1,350	1,352	1,370	1,559	1,330	9,878	9,878 10,400 70,353	70,353	84,640

The Water Agreement provides that "... enhancement/mitigation projects shall continue to be supplied by enhancement/mitigation wells as necessary." Due to monitoring sites controlling some of the production wells supplying E/M projects being in OFF status the amount of water supplied to E/M projects has exceeded the amount of water provided by E/M project supply wells. Table 7 shows the planned water supply to E/M projects and the forecasted imbalance between the E/M projects water use and the E/M well supply by the end of the 2005-2006 runoff year.

Because of the imbalance between E/M project use and pumping from E/M wells to conserve water and to reduce groundwater pumping, releases to the Lower Owens River Project will be conducted similar to past years. Releases will commence east of Independence and be augmented through additional releases at the Georges and Locust spillgates to maintain a continuous flow in the river channel. This will result in a reduction of approximately 3,000 acre-feet of supply to the Lower Owens River Project during the 2005-2006 runoff year.

Meeting the E/M water use in the program described above is expected to result in a shortfall of E/M pumping totaling approximately 10,180 acre-feet during the 2005-2006 runoff year. This shortfall will be made up by pumping Los Angeles Aqueduct supply wells and/or by providing surface water from the Los Angeles Aqueduct.

2.4 Aqueduct Operations

Table 8 shows proposed Los Angeles Aqueduct first-of-month reservoir storage levels and proposed monthly Aqueduct deliveries to Los Angeles.

2.5 Water Exports to Los Angeles

Figure 9 provides a record of Owens Valley and Mono Basin combined yearly exports from 1970 to the present averaging approximately 375,000 acre-feet per year. Figure 10 shows how the Owens Valley and Mono Basin contribution to the water supply for the City of Los Angeles water supply compares to the total supply between 1970 and present. During the 2004-2005 runoff year, approximately 35% of the water supply for the City of Los Angeles was provided by imports from the Owens Valley and Mono Basin. Figure 10 also shows the forecasted water supply mix for the City of Los Angeles for 2005-2006 runoff year, which estimates that Owens Valley and Mono Basin will provide approximately 59% of the water supply for the City of Los Angeles.

Runoff Valley Total Production EIM EIM Pumping Cumulative EIM Year Valley Total Production EIM Water vs. Use Pumping vs. Use Year Runoff (1) Pumping Wells Wells Uses Imbalance Imbalance (Apr-Mar) (3. of normal) (acre-feet) (acre-feet) (acre-feet) (acre-feet) care-feet) care-feet) 1985/88 103% 107,718 0 12,886 (3) 0 0 1986/89 67% 208,383 179,883 29,510 29,380 0 0 1986/89 67% 208,383 177,012 29,431 30,872 0 0 1986/89 67% 208,383 177,012 29,431 30,872 4,727 4,727 1981/82 67% 71,736 15,790 20,517 4,727 4,727 1981/82 61% 71,736 15,790 20,517 4,727 4,727	Tak	ole 7- Owens V	alley Groun	ndwater Pur	ping for Pr	oduction a	Table 7- Owens Valley Groundwater Pumping for Production and E/M Wells (1984-2005)	984-2005)
103% 107,718 107,718 0 109 158% 69,887 69,887 0 12,696 (3) 67% 209,393 179,883 29,510 29,360 (3) 62% 200,443 171,012 29,431 30,872 (3) 62% 200,443 171,012 29,431 30,872 (3) 63% 155,903 133,340 22,563 23,330 24,727 64% 87,526 71,736 15,780 20,517 -4,592 61% 84,135 70,370 13,785 18,357 -4,592 106% 76,329 67,338 8,991 19,310 -10,319 66% 89,153 78,143 11,010 20,812 -9,802 153% 68,740 57,894 16,923 23,949 -7,026 124% 66,910 52,756 14,154 21,500 -7,346 148% 61,575 47,354 4,221 19,87 -16,27	Runoff Year (Apr-Mar)	Owens Valley Runoff (1) (% of normal)	Total Pumping (acre-feet)	Production Wells (acre-feet)	E/M Wells (acre-feet)	E/M Water Uses (acre-feet)	E/M Pumping vs. Use Imbalance (acre-feet)	Cumulative E/M Pumping vs. Use Imbalance (acre-feet)
158% 69,887 69,887 0 12,696 (3) 67% 209,393 179,883 29,510 29,360 (3) 62% 200,443 171,012 29,431 30,872 (3) 63% 155,903 133,340 22,563 23,330 4,727 64% 87,526 71,736 15,790 20,517 -4,592 61% 84,135 70,370 13,765 18,357 -4,592 106% 84,135 70,370 13,765 18,357 -4,592 106% 84,135 70,370 13,765 18,357 -4,592 106% 89,153 8,991 19,310 -10,342 -10,342 153% 89,153 78,143 11,010 20,812 -10,342 153% 89,153 14,154 21,500 -7,346 148% 66,310 52,756 14,154 21,500 -7,346 148% 67,534 47,27 44,50 -10,342	1985/86	103%	107,718	107,718	0	109		0
67% 209,393 179,883 29,510 29,360 62% 200,443 171,012 29,431 30,872 63% 165,903 133,340 22,663 23,330 62% 89,061 70,974 18,087 17,949 64% 87,526 71,736 15,790 20,517 -4,727 61% 84,135 70,370 13,765 18,357 -4,592 106% 76,329 67,338 8,991 19,310 -10,319 66% 89,163 78,143 11,010 20,812 -9,802 153% 69,740 57,188 12,572 22,914 -10,342 134% 74,817 57,894 16,923 23,949 -7,026 124% 66,910 52,756 14,154 21,500 -7,346 148% 51,575 47,333 24,450 -7,346 88% 65,639 59,366 4,333 24,450 -10,372 82% 72,536 69,242	1986/87	158%	288'69	288'69	0	12,696	(9)	0
63% 200,445 171,012 25,633 23,330 63% 155,903 133,340 22,563 23,330 64% 89,061 70,974 18,087 17,949 64% 87,526 71,736 15,780 20,517 -4,727 61% 84,135 70,370 13,765 18,367 -4,592 106% 84,135 70,370 13,765 18,367 -4,592 106% 89,153 78,143 11,010 20,812 -9,802 168% 89,153 78,143 11,010 20,812 -9,802 153% 69,740 57,894 16,923 22,914 -10,342 134% 74,817 57,894 16,923 22,949 -7,026 148% 66,910 52,756 14,154 21,500 -7,346 148% 61,575 47,354 4,221 19,672 -20,117 88% 63,699 59,366 4,333 24,450 -14,274 82%	1987/88	67% 62%	209,393	179,883	29,510	29,360		0 0
52% 89,061 70,974 18,087 17,949 4,727 64% 87,526 71,736 15,790 20,517 -4,592 61% 84,135 70,370 13,765 18,357 -4,592 106% 84,135 70,370 13,765 18,357 -4,592 106% 89,153 78,143 11,010 20,812 -4,592 168% 89,163 78,143 11,010 20,812 -10,319 66% 89,163 78,143 11,010 20,812 -9,802 134% 74,817 57,894 16,923 23,949 -7,026 124% 66,910 52,756 14,154 21,500 -7,346 148% 51,575 47,354 4,221 19,672 -7,346 88% 66,910 52,756 14,154 21,500 -7,346 88% 63,699 59,366 4,333 20,611 -14,272 82% 72,536 69,242 3,294 21,394	1989/90	02 % 83%	155,903	133,340	22,563	23,330		
64% 87,526 71,736 15,790 20,517 -4,727 61% 84,135 70,370 13,765 18,357 -4,592 106% 76,329 67,338 8,991 19,310 -10,319 66% 89,153 78,143 11,010 20,812 -9,802 153% 69,740 57,168 12,572 22,914 -10,342 134% 74,817 57,894 16,923 23,949 -7,026 124% 66,910 52,756 14,154 21,500 -7,346 148% 51,575 47,354 4,221 19,672 -7,346 88% 63,699 59,366 4,333 24,450 -7,346 82% 67,534 61,195 6,384 21,815 -14,272 82% 72,536 69,242 3,294 21,815 -14,774 82% 82,281 76,361 5,920 21,394 -14,118 79% 85,803 7,710 18,327 -10,617	1990/91	52%	89,061	70,974	18,087	17,949		0
61% 84,135 70,370 13,765 18,357 -4,592 106% 76,329 67,338 8,991 19,310 -10,319 66% 89,153 78,143 11,010 20,812 -9,802 153% 69,740 57,168 12,572 22,914 -10,342 134% 74,817 57,894 16,923 23,949 -7,026 124% 66,910 52,756 14,154 21,500 -7,026 148% 51,575 47,354 4,221 19,672 -7,346 88% 63,699 59,366 4,333 24,450 -7,346 84% 67,536 61,185 6,339 20,611 -14,272 82% 72,536 69,242 3,294 21,815 -18,521 87% 87,726 80,728 6,998 21,116 -14,118 79% 85,803 78,090 7,710 18,327 -10,617 79% 90,000 81,500 8,500 18,600<	1991/92	64%	87,526	71,736	15,790	20,517	-4,727	-4,727
106% 76,329 67,338 8,991 19,310 -10,319 66% 89,153 78,143 11,010 20,812 -9,802 153% 69,740 57,168 12,572 22,914 -10,342 134% 74,817 57,894 16,923 23,949 -7,026 124% 66,910 52,756 14,154 21,500 -7,346 148% 51,575 47,354 4,221 19,672 (3) 88% 63,699 59,366 4,221 19,672 (3) 84% 67,534 61,195 6,339 20,611 -14,272 82% 72,536 69,242 3,294 21,815 -18,521 67% 82,281 76,361 5,920 21,394 -15,474 82% 85,803 7,710 18,327 -10,118 79% 85,803 7,710 18,327 -10,187 11,18% 10,000 81,500 18,600 -10,180	1992/93	61%	84,135	70,370	13,765	18,357	-4,592	-9,319
66% 89,153 78,143 11,010 20,812 -9,802 153% 69,740 57,168 12,572 22,914 -10,342 134% 74,817 57,894 16,923 23,949 -7,026 124% 66,910 52,756 14,154 21,500 -7,346 148% 51,575 47,354 4,221 19,672 (3) 88% 63,699 59,366 4,333 24,450 -20,117 84% 67,534 61,195 6,339 20,611 -14,272 82% 72,536 69,242 3,294 21,815 -18,521 87% 82,281 76,361 5,920 21,394 -15,474 82% 87,726 80,728 6,998 21,116 -14,118 79% 85,803 78,090 7,710 18,327 -10,180 128% 90,000 81,500 8,500 -10,180 -10,180	1993/94	106%	76,329	67,338	8,991	19,310	-10,319	-19,638
153% 69,740 57,168 12,572 22,914 -10,342 134% 74,817 57,894 16,923 23,949 -7,026 124% 66,910 52,756 14,154 21,500 -7,346 148% 51,575 47,354 4,221 19,672 (3) 88% 63,699 59,366 4,333 24,450 -20,117 84% 67,534 61,195 6,339 20,611 -14,272 82% 72,536 69,242 3,294 21,815 -18,521 82% 87,726 80,728 6,998 21,116 -15,474 82% 87,726 80,728 6,998 21,116 -14,118 79% 85,803 78,090 7,710 18,327 -10,617 128% 90,000 81,500 8,500 -10,180 -10,118	1994/95	898	89,153	78,143	11,010	20,812	-9,802	-29,440
134% 74,817 57,894 16,923 23,949 -7,026 124% 66,910 52,756 14,154 21,500 -7,346 148% 51,575 47,354 4,221 19,672 (3) 88% 63,699 59,366 4,333 24,450 -20,117 84% 67,534 61,195 6,339 20,611 -14,272 67% 82,281 76,361 5,920 21,815 -18,521 82% 87,726 80,728 6,998 21,116 -15,474 82% 87,726 80,728 6,998 21,116 -14,118 79% 85,803 78,090 7,710 18,327 -10,617 128% 90,000 81,500 8,500 -10,180	1995/96	153%	69,740	57,168	12,572	22,914	-10,342	-39,782
124% 66,910 52,756 14,154 21,500 -7,346 148% 51,575 47,354 4,221 19,672 (3) 88% 63,699 59,366 4,333 24,450 -20,117 84% 67,534 61,195 6,339 20,611 -14,272 82% 72,536 69,242 3,294 21,815 -18,521 67% 82,281 76,361 5,920 21,394 -15,474 82% 87,726 80,728 6,998 21,116 -14,118 79% 85,803 78,090 7,710 18,327 -10,617 128% 90,000 81,500 8,500 -10,1180	1996/97	134%	74,817	57,894	16,923	23,949	-7,026	-46,808
148% 51,575 47,354 4,221 19,672 (3) 88% 63,699 59,366 4,333 24,450 -20,117 84% 67,534 61,195 6,339 20,611 -14,272 82% 72,536 69,242 3,294 21,815 -18,521 67% 82,281 76,361 5,920 21,394 -15,474 82% 87,726 80,728 6,998 21,116 -14,118 79% 85,803 78,090 7,710 18,327 -10,617 128% 90,000 81,500 8,500 -10,180	1997/98	124%	66,910	52,756	14,154	21,500	-7,346	-54,154
88% 63,699 59,366 4,333 24,450 -20,117 84% 67,534 61,195 6,339 20,611 -14,272 82% 72,536 69,242 3,294 21,815 -18,521 67% 82,281 76,361 5,920 21,394 -15,474 82% 87,726 80,728 6,998 21,116 -14,118 79% 85,803 78,090 7,710 18,327 -10,617 128% 90,000 81,500 8,500 -10,180	1998/99	148%	51,575	47,354	4,221	19,672	(9)	-54,154
84% 67,534 61,195 6,339 20,611 -14,272 82% 72,536 69,242 3,294 21,815 -18,521 67% 82,281 76,361 5,920 21,394 -15,474 82% 87,726 80,728 6,998 21,116 -14,118 79% 85,803 78,090 7,710 18,327 -10,617 128% 90,000 81,500 8,500 18,680 -10,180	1999/00	88%	63'63	59,366	4,333	24,450	-20,117	-74,271
82% 72,536 69,242 3,294 21,815 -18,521 67% 82,281 76,361 5,920 21,394 -15,474 82% 87,726 80,728 6,998 21,116 -14,118 79% 85,803 78,090 7,710 18,327 -10,617 128% 90,000 81,500 8,500 18,680 -10,180	2000/01	84%	67,534	61,195	6,339	20,611	-14,272	-88,543
67% 82,281 76,361 5,920 21,394 -15,474 82% 87,726 80,728 6,998 21,116 -14,118 78,803 7,710 18,327 -10,617 128% 90,000 81,500 8,500 18,680 -10,180	2001/02	82%	72,536	69,242	3,294	21,815	-18,521	-107,064
82% 87,726 80,728 6,998 21,116 -14,118 79% 85,803 78,090 7,710 18,327 -10,617 1 128% 90,000 81,500 8,500 18,680 -10,180	2002/03	82%	82,281	76,361	5,920	21,394	-15,474	-122,538
7,710 18,327 -10,617 128% 90,000 81,500 8,500 18,680 -10,180	2003/04	82%	87,726	80,728	866'9	21,116	-14,118	-136,656
128% 90,000 81,500 8,500 18,680 -10,180	2004/05	79%	85,803	78,090	7,710	18,327	-10,617	-147,273
	2005/06 (2)	128%	90,000	81,500	8,500	18,680	-10,180	-157,453

^{(1) 1951-2000} average: 413,210 acre-feet(2) estimated values(3) surface water was available

Table 8 - Proposed Los Angeles Aqueduct Operations for 2005-2006 Runoff Year

Month	Owens Valley Reservoir Storage (1st of Month) (acre-feet)	Aqueduct Deliveries to LA (acre-feet)
April	155,810	35,702
May	135,395	30,744
June	142,285	29,752
July	161,941	46,116
August	168,817	46,116
September	155,461	44,628
October	137,736	33,818
November	118,269	32,727
December	113,970	30,744
January	116,071	21,521
February	123,030	20,132
March	129,713	21,521
TOTAL		393,521

Forecasted Average = 375,000 AF Runoff Year 100,000 500,000 200,000 0 600,000 400,000 300,000 Acre-Feet

Figure 9 - Los Angeles Aqueduct Exports

2005-06 is forecasted **MWD Purchases** Figure 10 – Sources of Water for the City of Los Angeles Recycled Water Runoff Year Local Groundwater LA Aquedct LOVEL WELL TO LOVE 300,000 200,000 -100,000 400,000 800,000 700,000 - 000,009 500,000 Acre-feet

Section 2 - Annual Owens Valley 2-23 Operations Plan for Runoff Year 2005-06