AGREEMENT BETWEEN THE COUNTY OF INYO AND THE CITY OF LOS ANGELES DEPARTMENT OF WATER AND POWER REGARDING AN INTERIM MANAGEMENT PLAN FOR GROUNDWATER PUMPING IN THE OWENS VALLEY

RECITALS

- 1. In 1991, the City of Los Angeles Department of Water and Power ("LADWP") and the County of Inyo ("County") entered into the *Agreement Between the County of Inyo and the City of Los Angeles and its Department of Water and Power on a Long Term Groundwater Management Plan for Owens Valley and Inyo County* ("Water Agreement").
- 2. The Water Agreement provides for the management of water resources in the Owens Valley. The overall goal of the Water Agreement is to avoid certain described decreases and changes in vegetation and to cause no significant impact on the environment which cannot be acceptably mitigated while providing a reliable supply of water for export to Los Angeles and for use in the Owens Valley.
- 3. The Water Agreement and its Technical Appendix, a document called the "Green Book," contain provisions for managing the water resources of the Owens Valley in a manner that is intended to achieve the goals of the Water Agreement.
- 4. Section XXV of the Water Agreement provides that, if as a result of information gained from ongoing research or cooperative studies, or for other reasons as may be necessary to better achieve the goals of the Water Agreement, or for improving the monitoring and evaluation activities, LADWP and the County, by agreement, may modify any portion of the Green Book, or the water resource provisions of the Water Agreement.
- 5. LADWP and the County have acknowledged that there is a need to improve the management tools contained in the Water Agreement and the Green Book to better achieve the goals of the Water Agreement.
- 6. LADWP and the County acknowledge that the revision process will require substantial commitment of staff, resources, and time to develop. The work is estimated to require three (3) years.
- 7. LADWP and the County have agreed to undertake a cooperative effort that has as its primary objective the development of recommendations for revisions to the Green Book and/or the Water Agreement that will better achieve the overall goal of the Water Agreement. The cooperative effort is hereinafter referred to as the "Cooperative Study."

AGREEMENT

To provide an environment conducive to successfully performing the Cooperative Study, the County and LADWP agree to manage the water resources of the Owens Valley during the time that the Cooperative Study is being conducted (from execution of this agreement until March 31, 2010 unless terminated sooner as provided below), to provide the resources to initiate the Cooperative Study, and to the other terms of this agreement, as set forth below.

8. <u>Water Resources Management While the Cooperative Study is Being Conducted.</u> Upon discharge of the Order of the Inyo County Superior Court in Case Number S1CVCV01-29768 (the Order provides that LADWP's groundwater pumping in the Owens Valley shall not exceed 57,412 acre-feet (af) of water per runoff year), until the termination of this agreement, the water resources in the Owens Valley shall be managed as provided below.

- a. Groundwater pumping by LADWP in the Owens Valley during the 2006-2007 runoff year shall not exceed 57,412 af unless additional pumping is required for freeze protection.
- b. During the 2007-08, 2008-09 and 2009-2010 runoff years, groundwater pumping by LADWP in the Owens Valley, except in the Bishop and Lone Pine wellfields (see explanation below), will be managed with the goal of having average forecasted wellfield groundwater levels on April 1, 2008, April 1, 2009 and April 1, 2010 (wellfield target levels) at or greater than the average measured wellfield groundwater levels on April 1, 2007, subject to specific criteria as described below.
 - i. <u>Average Groundwater Level Calculations</u>

Groundwater levels are represented by measured Depth-To-Water (DTW) from ground surface. The average measured wellfield groundwater levels on April 1, 2007, April 1, 2008 and April 1, 2009 will be calculated using the measured April 1st DTW in the specific monitoring wells identified in Table 1 below. The April 1st depth-to-water will be measured during the period from April 1 through April 10 of each respective year. Bishop and Lone Pine wellfields are excluded from this calculation, as pumping on the Bishop Cone will be managed in accordance with the Hillside Decree, the Water Agreement and applicable court rulings. Lone Pine pumping will be limited to supplying the town water system and Enhancement/Mitigation project irrigation.

Well Field	Monitoring	
	well	
Laws	T436	
	T490	
	T492	
	Average	
Big Pine	T425	
	T426	
	Average	
Taboose-	T418	
Aberdeen	T419	
	T421	
	T502	
	Average	
Thibaut-	T413	
Sawmill	T415	
	Average	
Independence-	407T	
Oak	408T	
	409T	
	Average	

Owens Valley Average Groundwater Leve	l Calculation Monitoring Wells

Table 1

Symmes-	T401
Shepherd	T403
	T404
	T447
	Average
Bairs-	T398
Georges	T400
	Average

ii. <u>Pumping</u>

To achieve the goal of having average forecasted groundwater levels on April 1, 2008, April 1, 2009 and April 1, 2010 at, or greater than, the average measured wellfield groundwater levels on April 1, 2007, the pumping amounts from Owens Valley wells that will take place during each runoff year will be established annually by utilizing the regression equations specified in Exhibit A. (Wells that are in OFF status based on the current Green Book criteria will not be operated.)

During a runoff year, an exempt well identified in Exhibit B may be operated as necessary to supply the designated use and pumping from the well for this purpose will not be limited even if this operation of the well will prevent attainment of the applicable wellfield target level for the following April 1. However, during a runoff year, in a wellfield, if the operation of a well or wells identified in Exhibit B will prevent the attainment of the applicable wellfield target level, for the following April 1, no well in the wellfield, other than those identified on Exhibit B, shall be operated.

iii. Freeze Protection

Groundwater pumping is used by LADWP to provide freeze protection for the Los Angeles Aqueduct based on the ambient water and air temperatures. If necessary, a well may be operated for the purpose of freeze protection for the Aqueduct even if the operation of the well will prevent attainment of the applicable wellfield target level for the following April 1.

iv. Laws Spreading

If the forecasted runoff for a runoff year should exceed 130 percent of average, LADWP will divert a minimum of 10,000 af of water from the Owens River and will spread such water in the Laws wellfield and/or use such water to supply irrigation uses in the Laws wellfield.

v. <u>Well Testing</u>

Wells may be exempted from the provisions of Section 8(b) of this agreement for the purpose of testing if test criteria are agreed to by both Inyo County and LADWP at a Technical Group meeting.

vi Minimum and Maximum Annual Pumping

Even if the regression equations specified in Exhibit A indicate that the applicable wellfield target levels for the following April 1 will not be attained in all wellfields, not less than the lowest actual pumping for a runoff year since the 2000-01 runoff year may be pumped from the Owens Valley by LADWP in any runoff year. The maximum groundwater pumping by LADWP from the Owens Valley in any given runoff year will not be more than the highest actual pumping since the 2000-01 runoff year.

- c. For the 2007-08, 2008-09 and 2009-2010 runoff years, LADWP will propose an annual operations and groundwater pumping plan as scheduled in Water Agreement Section V.D. The proposed plan will contain the allocation of the amount of groundwater pumping, consistent with the provisions set forth in 8(b), which will take place in each wellfield in the Owens Valley during the runoff year. It is recognized that during the runoff year the actual depth-to-water levels will fluctuate above and below the measured April 1, 2007 depth-to-water level. The distribution of the groundwater pumping shall be feasible, reasonable, and in accordance with the Water Agreement and with the provisions of this agreement. Comments by the County on the proposed operations plan, a meeting of the Technical Group concerning the proposed plan, and release of the final plan by LADWP will be as provided in sections V.D.2, V.D.3 and V.D.4 of the Water Agreement.
- d. During the term of this agreement, the County will not initiate a dispute proceeding under the Water Agreement over the amount of groundwater pumping in a wellfield, provided that pumping is consistent with 8(a), 8(b), and 8(c).
- 9. <u>Drought Recovery Policy</u>. During the term of this agreement, the County will consider the Drought Recovery Policy superseded by the groundwater management provisions of this agreement, and will not initiate a dispute proceeding on the validity of the Drought Recovery Policy.
- 10. <u>Funding</u>. Except for the costs of County and LADWP staff that participate in the Cooperative Study, the County and LADWP will share the costs of conducting the Cooperative Study equally. LADWP will provide the amount of \$100,000 to the County within 60 days of the execution of this agreement. The County will place these funds in a trust account in the Inyo County Treasury. In the event that the sum of \$100,000 is determined by the General Manager of LADWP and the Inyo County Administrator to be inadequate to the cover the County's share of the costs of the Cooperative Study, LADWP will provide the amount of extra funding determined to be necessary to the County and the funds will be placed into the trust account.

The principal and interest in the trust account will only be used for the purposes of paying the costs of the Cooperative Study. Funds in the trust account will be used to pay the County's share of the costs for facilitators, peer reviewers, consultants, contractors, and other expenses that directly relate to the work covered under the Cooperative Study. The County and LADWP will, unless otherwise agreed by the General Manager of LADWP and the Inyo County Administrator, jointly contract with facilitators, peer reviewers, consultants, consultants, consultants, contractors, and others whose services are required to conduct the Cooperative Study and

will, jointly administer such contracts. The exception to this is that LADWP will pay the costs of any consultants who participate in the Cooperative Study who are currently under contract to LADWP, provided the existing contract is not in conflict with the Cooperative Study.

The County will provide LADWP with a monthly accounting pertaining to the account. reflecting the balance and itemized debits. This monthly accounting shall be submitted to LADWP on or before the 10th calendar day of each month. Each accounting shall itemize the expenditures during the previous month and report the cumulative expenditures from the trust fund. At any time within three years after the completion or termination of a contract entered into to assist in conducting the Cooperative Study, LADWP shall have the right to conduct an audit of the monthly expenditures associated with that contract itemized in the monthly reports by providing 30 days calendar notice to the County. The County shall provide LADWP with an office to conduct this audit along with all requested documents and information at no cost to LADWP. Funds from the trust account shall not be used to reimburse the County or LADWP for any charges or costs associated with audit proceedings. LADWP shall promptly conduct and complete the audit and shall notify the County in writing of any expenditures that LADWP believes are improper. The County shall promptly respond to any claim of an improper expenditure in writing. If the County and LADWP are in disagreement over whether an expenditure was improper, the matter will be submitted to an impartial arbitrator selected by LADWP and County for resolution. LADWP and the County shall each pay one-half of the costs of the arbitrator. Any expenditure deemed to be improper shall be refunded into the trust account by the County within 60 days from the date of such determination.

The County's administration charges associated with the trust account and Cooperative Study shall be at the County's sole expense. The County, at the termination of this agreement, shall the return the balance of the funds remaining in the trust account (including any interest) to LADWP within 60 calendar days.

- 11. <u>Owens Lake Groundwater Study</u>. Inyo County will work with LADWP to develop and conduct a joint study to explore the feasibility of utilizing groundwater beneath Owens Lake to assist in the dust mitigation measures. Details of this study will be worked out in a separate agreement.
- 12. <u>Ownership of Materials</u>. All data, analyses, work product, reports or other materials developed as part of the Cooperative Study will be provided to both LADWP and the County and will be jointly owned by both agencies. Upon completion of the Cooperative Study and/or termination of the Cooperative Study, all equipment, computers, and software and licenses acquired during this Cooperative Study shall be returned to LADWP and shall be owned by LADWP.
- 13. <u>Amendment</u>. This agreement may only be modified, amended or extended by written agreement of LADWP and the County.
- 14. <u>Enforcement</u>. In the event that a party to this agreement believes that the other party has breached this agreement, the party shall give written notice of the alleged breach to the other party. The written notice shall state with specificity the alleged breach, the detailed facts supporting the allegation, and the cure the party is seeking. The other party shall respond to

the alleging party within twenty days of receiving the written allegation notice. The response shall set forth with specificity the facts refuting the allegation or what steps the breaching party will take to cure the breach if it agrees such a breach exists. Any disputes that are not resolved through this procedure will be submitted to an impartial arbitrator selected by LADWP and the County for resolution. LADWP and the County shall each pay one half of the cost of the arbitrator.

- 15. <u>Term</u>. This agreement shall be in full force and effect upon execution by both LADWP and the County. This agreement shall terminate on March 31, 2010, but may be terminated at the option of either party by giving a written notice of termination to the other party that the agreement will terminate effective April 1, 2008 or April 1, 2009. To terminate the agreement effective April 1, 2008, the written notice must be delivered by March 1, 2008, and to terminate effective April 1, 2009, the written notice must be delivered by March 1, 2009. If a written notice is not delivered as specified, the agreement will remain in full force and effect. If, at the termination of this agreement, the County and LADWP have agreed to implement methodologies that replace or improve the tools for achieving the goals of the Water Agreement, management of the water resources of the Owens Valley shall be in accordance with such modifications. To the extent that such modifications have not been agreed to, upon termination of this agreement, management of the water resources of the Owens Valley, including the preparation of an Annual Operations and Groundwater Pumping Plan, shall revert to the existing provisions of the Water Agreement and the Green Book.
- 16. <u>Non-Precedence</u>. The parties recognize that the groundwater pumping maximums and minimums set forth herein do not establish, are not intended to establish, and will not be argued to have established, either a floor or a ceiling for future pumping amounts or for establishing a pumping formula/methodology under any revisions to the Green Book.
- 17. Notices. Any notification required by this Agreement shall be made as follows:

To the County:

Inyo County Administrator P.O. Drawer N Independence, California 93526 Email: rjuliff@qnet.com

Director, Inyo County Water Department 163 May Street Bishop, California 93514 Email: mail@inyowater.org

To LADWP:

Director of Water Resources P.O. Box 51111, Room 1460 Los Angeles, California 90051-5700 Email: Thomas.Erb@water.ladwp.com

Manager, Aqueduct Business Group 300 Mandich Street Bishop, California 93514

gene.coufal@water.ladwp.com

<u>City of Los Angeles</u> Department of Water and Power

Dated: _____

County of Inyo

By:

Dated: _____

By:

Exhibit A Identification of Regression Analysis Formulae to be used in Developing Annual Operations Plans

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WELL FIELD	Monitoring Well	C ₁ Int.	C₂ DTWi	C ₃ Pump	C4 RO	r
LAWS	436T	-3.66544	0.63206	-1.40006E-04	1.57582E-04	0.97
	492T	-16.05701	0.47850	-5.47813E-04	3.04580E-04	0.96
	490T	-4.13469	0.75176	-5.86753E-05	1.17751E-04	0.96
BIG PINE	425T	-4.16964	0.80007	-1.37884E-04	9.29178E-06	0.99
	426T	-2.76976	0.83830	-7.97650E-05	6.05729E-06	0.99
TABOOSE/	418T	-2.01786	0.83938	-1.06922E-04	3.75313E-06	0.99
ABERDEEN	419T	-2.29503	0.75478	-2.54269E-04	6.74057E-06	0.99
	421T	-14.23799	0.66074	-2.53462E-04	1.01994E-05	0.99
	502T	-6.71824	0.61350	-8.13415E-05	8.58613E-06	0.96
THIBAUT/	415T	1.44799	0.66421	-9.00967E-04	1.06910E-05	0.98
SAWMILL	413T	-3.51622	0.81959	-1.45979E-04	6.80216E-06	0.92
IND. / OAK	407T	-0.96332	0.78882	-2.85860E-04	1.93703E-06	0.96
	408T	-0.01017	0.83094	-1.81722E-04	1.75810E-06	0.96
	409T	-5.80440	0.81649	-3.62343E-04	1.86903E-05	0.94
SYMMES/	401T	-12.04609	0.54085	-5.42485E-04	1.01642E-05	0.89
SHEPHERD	403T	-1.69845	0.75212	-3.15097E-04	2.76822E-06	0.99
	404T	-0.91079	0.78663	-1.09247E-04	7.78062E-07	0.93
	447T	-8.98506	0.82095	-6.94419E-04	1.35517E-05	0.98
BAIRS/	398T	-2.86863	0.42374	-1.13932E-03	3.37512E-06	0.98
GEORGES	400T	-2.40528	0.49098	-2.40854E-04	2.31391E-07	0.94

Coefficients of the Regression Equations for Calculating DTW

Notes:

The equation for calculating DTW is: $DTW_{i+1} = C_1 + C_2 * DTW_i + C_3 * Pump + C_4 * RO$

Where:C1, C2, C3, C4 are regression coefficients
DTWi: Depth to water from ground surface in April of current year
DTWi+1: Depth to water from ground surface in April of next year
Pump: Wellfield pumping for the year in acre-feet
RO.: Forecasted Owens Valley runoff in acre-feet
For Laws Wellfield, use McNally Canal flow instead of Owens Valley Runoff

Exhibit B

WELL NUMBER	WELL FIELD	REASON		
354 ¹	Laws	Town Supply		
413 ²	Laws	Town Supply and Laws Museum E/M Project Irrigation Well		
236	Laws	Irrigation Water (to supplement irrigation water supply from Well 365 when necessary)		
341 ¹	Big Pine	Town Supply		
352 ²	Big Pine	Town Supply		
415 ^{2, 3}	Big Pine	Town Supply and water supply for Big Pine Ditch System Project		
357 ¹	Independence-Oak	Town Supply		
384 ²	Independence-Oak	Town Supply		
344 ¹	Lone Pine	Town Supply		
346 ²	Lone Pine	Town Supply		
330	Big Pine	Fish Spring Hatchery		
332	Big Pine	Fish Spring Hatchery		
351	Thibaut-Sawmill	Blackrock Fish Hatchery		
356	Thibaut-Sawmill	Blackrock Fish Hatchery		
401	Independence-Oak	Water for Irrigation in Independence-Oak Wellfield		
59	Independence-Oak	Water for Irrigation in Independence-Oak Wellfield		
60	Independence-Oak	Water for Irrigation in Independence-Oak Wellfield		
65	Independence-Oak	Water for Irrigation in Independence-Oak Wellfield		
383E/M	Independence-Oak	Water for Irrigation in Independence-Oak Wellfield		
384E/M	Independence-Oak	Water for Irrigation in Independence-Oak Wellfield		
61	Independence-Oak	Water for Irrigation in Independence-Oak Wellfield		
365	Laws	Water for Irrigation in Laws Wellfield		
245	Laws	Water for Irrigation in Laws Wellfield		
387	Laws	Water for Irrigation in Laws Wellfield		
388	Laws	Water for Irrigation in Laws Wellfield		
402E/M	Symmes-Shepherd	Water for E/M Project in Symmes-Shepherd Wellfield		
390E/M	Lone Pine	Water for E/M Projects in Lone Pine Wellfield		
343	Bairs-Georges	Irrigation Water in Bairs-Georges Wellfield in Below Average Runoff Years		

Note 1: Primary town supply well Note 2: Backup town supply well

Note 3: Usage for the Big Pine Ditch system to be consistent with evaluation and approval of such use by the Technical Group