

## Attachment 3 Status of GWMP

The Verdugo Basin is a groundwater sub-basin of the San Fernando Valley Groundwater Basin, which is a groundwater basin defined in DWR Bulletin 118. The San Fernando Valley Groundwater Basin is part of the South Coast Hydrologic Region.

The Verdugo Basin is a groundwater basin within the adjudicated Upper Los Angeles River Area (ULARA). The District overlies much of the Verdugo Basin and is one of five parties that participate in ULARA's formalized basin-wide planning program for groundwater resources. Although no Groundwater Management Plan (GWMP) exists for the ULARA basins, groundwater resource management is coordinated through the court-appointed ULARA Watermaster with active participation of all parties to the judgment including the District.

On January 26, 1979 the Superior Court of the State of California for the County of Los Angeles rendered the Judgment in "The City of Los Angeles, Plaintiff, vs. City of San Fernando, et al., Defendants" (see Appendix A) and located on the ULARA website at <http://ularawatermaster.ladwp.com/>. The Judgment assigned specific water rights to each of the major purveyors in the four groundwater basins and physical solutions to various private pumpers who were part of the original adjudication. It also characterized basin hydrology and geology, set forth provisions and stipulations regarding storage of water and imported return water credits, and designated the appointment of a Watermaster and Administrative Committee to manage ULARA. The Watermaster serves at the pleasure of the Court.

### Key Elements of a GWMP performed by the ULARA Watermaster

The following is a list of key elements for a GWMP that are included in the ULARA Annual Report, "Watermaster Service in the Upper Los Angeles River Area, 2010-11 Water Year". (See Appendix A)

1. Basin management objectives (BMOs) for the groundwater basin
2. Components relating to the monitoring and management of groundwater levels, groundwater quality, inelastic land surface subsidence, and changes in surface flow and surface water quality that directly affect groundwater levels or quality or are caused by groundwater pumping
3. A plan by the managing entity to "involve other agencies that enables the local agency to work cooperatively with other public entities whose service area or boundary overlies the groundwater basin"
4. Adoption of monitoring protocols
5. A map showing the area of the groundwater basin as defined by DWR Bulletin 118 with the area of the local agency subject to the plan as well as the boundaries of other local agencies that overlie the basin
6. For local agencies not overlying groundwater basins, plans shall be prepared including the above listed components and using geologic and hydrologic principles appropriate to those areas

The Watermaster is responsible for administering the Judgment, managing water rights, ensuring the basin objectives of safe yield operation and managing the groundwater quality of the basin. To that end, the Watermaster provides the following services: reports information and records necessary to determine compliance or lack of compliance; collects data to verify conditions; calculates and reports annually on hydrological conditions and Watermaster activities, and works cooperatively with agencies to secure and exchange data to cooperatively manage ULARA.

The Watermaster revised the "Watermaster Service, ULARA Policies and Procedures" (Policies and Procedures) in 1998 (see Appendix C) that guides the Watermaster in performance of its duties, powers and responsibilities. The Policies and Procedures address the following:

- Administration of water rights as established by the Judgment;
- Accounting procedures for groundwater extractions and storage;
- Management of groundwater quality;
- Establishment of the Administrative Committee, and
- Reporting requirements and procedures

## **Appendix A - ULARA Judgment**

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SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF LOS ANGELES

THE CITY OF LOS ANGELES, )  
 )  
 Plaintiff, )  
 )  
 vs. )  
 )  
 CITY OF SAN FERNANDO, et al., )  
 )  
 Defendants. )  
 )

No. 650079  
JUDGMENT

There follows by consecutive paging a Table of Contents (pages i. to vi.), Recitals (page 1), Definitions and List of Attachments (pages 1 to 6), Designation of Parties (page 6), Declaration re Geology and Hydrology (pages 6 to 12), Declaration of Rights (pages 12 to 21), Injunctions (pages 21 to 23), Continuing Jurisdiction (page 23), Watermaster (pages 23 to 29), Physical Solution (pages 29 to 34), and Miscellaneous Provisions (pages 34 to 35), and Attachments (pages 36 to 46). Each and all of said several parts constitute a single integrated Judgment herein.

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1. RECITALS

This matter was originally tried before the Honorable Edmund M. Moor, without jury, commencing on March 1, 1966, and concluding with entry of Findings, Conclusions and Judgment on March 14, 1968, after more than 181 trial days. Los Angeles appealed from said judgment and the California Supreme Court, by unanimous opinion, (14 Cal. 3d 199) reversed and remanded the case; after trial of some remaining issues on remand, and consistent with the opinion of the Supreme Court, and pursuant to stipulations, the Court signed and filed Findings of Fact and Conclusions of Law. Good cause thereby appearing,

IT IS ORDERED, ADJUDGED AND DECREED:

2. DEFINITIONS AND ATTACHMENTS

2.1 Definitions of Terms. As used in this Judgment, the following terms shall have the meanings herein set forth:

[1] Basin or Ground Water Basin -- A subsurface geologic formation with defined boundary conditions, containing a ground water reservoir, which is capable of yielding a significant quantity of ground water.

[2] Burbank -- Defendant City of Burbank.

[3] Crescenta Valley -- Defendant Crescenta Valley County Water District.

[4] Colorado Aqueduct -- The aqueduct facilities and system owned and operated by MWD for the importation of water from the Colorado River to its service area.

[5] Deep Rock -- Defendant Evelyn M. Pendleton, dba Deep Rock Artesian Water Company.

1 [6] Delivered Water -- Water utilized in a water supply  
2 distribution system, including reclaimed water.

3 [7] Eagle Rock Basin -- The separate ground water basin  
4 underlying the area shown as such on Attachment "A".

5 [8] Extract or Extraction -- To produce ground water,  
6 or its production, by pumping or any other means.

7 [9] Fiscal Year -- July 1 through June 30 of the  
8 following calendar year.

9 [10] Foremost -- Defendant Foremost Foods Company,  
10 successor to defendant Sparkletts Drinking Water Corp.

11 [11] Forest Lawn -- Collectively, defendants Forest  
12 Lawn Cemetery Association, Forest Lawn Company, Forest Lawn  
13 Memorial-Park Association, and American Security and Fidelity  
14 Corporation.

15 [12] Gage F-57 -- The surface stream gaging station  
16 operated by Los Angeles County Flood Control District and  
17 situated in Los Angeles Narrows immediately upstream from the  
18 intersection of the Los Angeles River and Arroyo Seco, at  
19 which point the surface outflow from ULARA is measured.

20 [13] Glendale -- Defendant City of Glendale.

21 [14] Ground Water -- Water beneath the surface of the  
22 ground and within the zone of saturation.

23 [15] Hersch & Plumb -- Defendants David and Eleanor A.  
24 Hersch and Gerald B. and Lucille Plumb, successors to  
25 Wellesley and Duckworth defendants.

26 [16] Import Return Water -- Ground water derived from  
27 percolation attributable to delivered imported water.

28 [17] Imported Water -- Water used within ULARA, which

1 is derived from sources outside said watershed. Said term  
2 does not include inter-basin transfers wholly within ULARA.

3 [18] In Lieu Storage -- The act of accumulating ground  
4 water in a basin by intentional reduction of extractions of  
5 ground water which a party has a right to extract.

6 [19] Lockheed -- Defendant Lockheed Aircraft Corporation.

7 [20] Los Angeles -- Plaintiff City of Los Angeles,  
8 acting by and through its Department of Water and Power.

9 [21] Los Angeles Narrows -- The physiographic area  
10 northerly of Gage F-57 bounded on the east by the San Rafael  
11 and Repetto Hills and on the west by the Elysian Hills,  
12 through which all natural outflow of the San Fernando Basin  
13 and the Los Angeles River flow en route to the Pacific Ocean.

14 [22] MWD -- The Metropolitan Water District of Southern  
15 California, a public agency of the State of California.

16 [23] Native Safe Yield -- That portion of the safe  
17 yield of a basin derived from native waters.

18 [24] Native Waters -- Surface and ground waters derived  
19 from precipitation within ULARA.

20 [25] Overdraft -- A condition which exists when the  
21 total annual extractions of ground water from a basin exceed  
22 its safe yield, and when any temporary surplus has been  
23 removed.

24 [26] Owens-Mono Aqueduct -- The aqueduct facilities  
25 owned and operated by Los Angeles for importation to ULARA  
26 water from the Owens River and Mono Basin watersheds easterly  
27 of the Sierra-Nevada in Central California.

28 [27] Private Defendants -- Collectively, all of those

1 defendants who are parties, other than Glendale, Burbank, San  
2 Fernando and Crescenta Valley.

3 [28] Reclaimed Water -- Water which, as a result of  
4 processing of waste water, is made suitable for and used for  
5 a controlled beneficial use.

6 [29] Regulatory Storage Capacity -- The volume of  
7 storage capacity of San Fernando Basin which is required to  
8 regulate the safe yield of the basin, without significant  
9 loss, during any long-term base period of water supply.

10 [30] Rising Water -- The effluent from a ground water  
11 basin which appears as surface flow.

12 [31] Rising Water Outflow -- The quantity of rising  
13 water which occurs within a ground water basin and does not  
14 rejoin the ground water body or is not captured prior to  
15 flowing past a point of discharge from the basin.

16 [32] Safe Yield -- The maximum quantity of water which  
17 can be extracted annually from a ground water basin under a  
18 given set of cultural conditions and extraction patterns,  
19 based on the long-term supply, without causing a continuing  
20 reduction of water in storage.

21 [33] San Fernando -- Defendant City of San Fernando.

22 [34] San Fernando Basin -- The separate ground water  
23 basin underlying the area shown as such on Attachment "A".

24 [35] Sportsman's Lodge -- Defendant Sportsman's Lodge  
25 Banquet Association.

26 [36] Stored Water -- Ground water in a basin consisting  
27 of either (1) imported or reclaimed water which is inten-  
28 tionally spread, or (2) safe yield water which is allowed to

1 accumulate by In Lieu Storage. Said ground waters are dis-  
2 tinguished and separately accounted for in a ground water  
3 basin, notwithstanding that the same may be physically com-  
4 mingled with other waters in the basin.

5 [37] Sylmar Basin -- The separate ground water basin  
6 underlying the area indicated as such on Attachment "A".

7 [38] Temporary Surplus -- The amount of ground water  
8 which would be required to be removed from a basin in order  
9 to avoid waste under safe yield operation.

10 [39] Toluca Lake -- Defendant Toluca Lake Property  
11 Owners Association.

12 [40] ULARA or Upper Los Angeles River Area -- The Upper  
13 Los Angeles River watershed, being the surface drainage area  
14 of the Los Angeles River tributary to Gage F-57.

15 [41] Underlying Pueblo Waters -- Native ground waters  
16 in the San Fernando Basin which underlie safe yield and  
17 stored waters.

18 [42] Valhalla -- Collectively, Valhalla Properties,  
19 Valhalla Memorial Park, Valhalla Mausoleum Park.

20 [43] Van de Kamp -- Defendant Van de Kamp's Holland  
21 Dutch Bakers, Inc.

22 [44] Verdugo Basin -- The separate ground water basin  
23 underlying the area shown as such on Attachment "A".

24 [45] Water Year -- October 1 through September 30 of  
25 the following calendar year.

26 Geographic Names, not herein specifically defined, are used to  
27 refer to the places and locations thereof as shown on Attachment "A".

28 2.2 List of Attachments. There are attached hereto the .

1 following documents, which are by this reference incorporated in  
2 this Judgment and specifically referred to in the text hereof:

3 "A" -- Map entitled "Upper Los Angeles River Area",  
4 showing Separate Basins therein.

5 "B" -- List of "Dismissed Parties."

6 "C" -- List of "Defaulted Parties."

7 "D" -- List of "Disclaiming Parties."

8 "E" -- List of "Prior Stipulated Judgments."

9 "F" -- List of "Stipulated Non-Consumptive or Minimal-  
10 Consumptive Use Practices."

11 "G" -- Map entitled "Place of Use and Service Area of  
12 Private Defendants."

13 "H" -- Map entitled "Public Agency Water Service Areas."  
14

### 15 3. PARTIES

16 3.1 Defaulting and Disclaiming Defendants. Each of the  
17 defendants listed on Attachment "C" and Attachment "D" is without  
18 any right, title or interest in, or to any claim to extract ground  
19 water from ULARA or any of the separate ground water basins therein.

20 3.2 No Rights Other Than as Herein Declared. No party to  
21 this action has any rights in or to the waters of ULARA except to  
22 the extent declared herein.  
23

### 24 4. DECLARATION RE GEOLOGY AND HYDROLOGY

#### 25 4.1 Geology.

26 4.1.1 ULARA. ULARA (or Upper Los Angeles River Area),  
27 is the watershed or surface drainage area tributary to the  
28 Los Angeles River at Gage F-57. Said watershed contains a

1 total of 329,000 acres, consisting of approximately 123,000  
2 acres of valley fill area and 206,000 acres of hill and  
3 mountain area, located primarily in the County of Los Angeles,  
4 with a small portion in the County of Ventura. Its boundaries  
5 are shown on Attachment "A". The San Gabriel Mountains form  
6 the northerly portion of the watershed, and from them two  
7 major washes--the Pacoima and the Tujunga--discharge southerly  
8 Tujunga Wash traverses the valley fill in a southerly direc-  
9 tion and joins the Los Angeles River, which follows an east-  
10 erly course along the base of the Santa Monica Mountains  
11 before it turns south through the Los Angeles Narrows. The  
12 waters of Pacoima Wash as and when they flow out of Sylmar  
13 Basin are tributary to San Fernando Basin. Lesser tributary  
14 washes run from the Simi Hills and the Santa Susana Mountains  
15 in the westerly portion of the watershed. Other minor washes,  
16 including Verdugo Wash, drain the easterly portion of the  
17 watershed which consists of the Verdugo Mountains, the Elysian,  
18 San Rafael and Repetto Hills. Each of said washes is a non-  
19 perennial stream whose flood flows and rising waters are  
20 naturally tributary to the Los Angeles River. The Los Angeles  
21 River within ULARA and most of said tributary natural washes  
22 have been replaced, and in some instances relocated, by  
23 concrete-lined flood control channels. There are 85.3 miles  
24 of such channels within ULARA, 62% of which have lined con-  
25 crete bottoms.

26 4.1.2 San Fernando Basin. San Fernando Basin is the  
27 major ground water basin in ULARA. It underlies 112,047 acres  
28 and is located in the area shown as such on Attachment "A".

1 Boundary conditions of the San Fernando Basin consist on the  
2 east and northeast of alluvial contacts with non-waterbearing  
3 series along the San Rafael Hills and Verdugo Mountains and  
4 the Santa Susana Mountains and Simi Hills on the northwest and  
5 west and the Santa Monica Mountains on the south. Water-  
6 bearing material in said basin extends to at least 1000 feet  
7 below the surface. Rising water outflow from the San Fernando  
8 Basin passes its downstream and southerly boundary in the  
9 vicinity of Gage F-57, which is located in Los Angeles Narrows  
10 about 300 feet upstream from the Figueroa Street (Dayton  
11 Street) Bridge. The San Fernando Basin is separated from the  
12 Sylmar Basin on the north by the eroded south limb of the  
13 Little Tujunga Syncline which causes a break in the ground  
14 water surface of about 40 to 50 feet.

15 4.1.3 Sylmar Basin. Sylmar Basin underlies 5,565 acres  
16 and is located in the area shown as such on Attachment "A".  
17 Water-bearing material in said basin extends to depths in ex-  
18 cess of 12,000 feet below the surface. Boundary conditions of  
19 Sylmar Basin consist of the San Gabriel Mountains on the north;  
20 a topographic divide in the valley fill between the Mission  
21 Hills and San Gabriel Mountains on the west, the Mission Hills  
22 on the southwest, Upper Lopez Canyon Saugus Formation on the  
23 east, along the east bank of Pacoima Wash, and the eroded  
24 south limb of the Little Tujunga Syncline on the south.

25 4.1.4 Verdugo Basin. Verdugo Basin underlies 4,400 acres  
26 and is located in the area shown as such on Attachment "A".  
27 Boundary conditions of Verdugo Basin consist of the San  
28 Gabriel Mountains on the north, the Verdugo Mountains on the

1 south and southwest, the San Rafael Hills on the southeast and  
2 the topographic divide on the east between the drainage area  
3 that is tributary to the Tujunga Wash to the west and Verdugo  
4 Wash to the east, the ground water divide on the west between  
5 Monk Hill-Raymond Basin and the Verdugo Basin on the east and  
6 a submerged dam constructed at the mouth of Verdugo Canyon on  
7 the south.

8 4.1.5 Eagle Rock Basin. Eagle Rock Basin underlies 307  
9 acres and is located in the area shown as such on Attachment  
10 "A". Boundary conditions of Eagle Rock Basin consist of the  
11 San Rafael Hills on the north and west and the Repetto Hills  
12 on the east and south with a small alluvial area to the  
13 southeast consisting of a topographic divide.

#### 14 4.2 Hydrology.

15 4.2.1 Water Supply. The water supply of ULARA consists  
16 of native waters, derived from precipitation on the valley  
17 floor and runoff from the hill and mountain areas, and of im-  
18 ported water from outside the watershed. The major source of  
19 imported water has been from the Owens-Mono Aqueduct, but  
20 additional supplies have been and are now being imported  
21 through MWD from its Colorado Aqueduct and the State Aqueduct.

22 4.2.2 Ground Water Movement. The major water-bearing  
23 formation in ULARA is the valley fill material bounded by  
24 hills and mountains which surround it. Topographically, the  
25 valley-fill area has a generally uniform grade in a southerly  
26 and easterly direction with the slope gradually decreasing  
27 from the base of the hills and mountains to the surface  
28 drainage outlet at Gage F-57. The valley fill material is a

1 heterogeneous mixture of clays, silts, sand and gravel laid  
2 down as alluvium. The valley fill is of greatest permeability  
3 along and easterly of Pacoima and Tujunga Washes and generally  
4 throughout the eastern portion of the valley fill area,  
5 except in the vicinity of Glendale where it is of lesser  
6 permeability. Ground water occurs mainly within the valley  
7 fill, with only negligible amounts occurring in hill and  
8 mountain areas. There is no significant ground water movement  
9 from the hill and mountain formations into the valley fill.  
10 Available geologic data do not indicate that there are any  
11 sources of native ground water other than those derived from  
12 precipitation. Ground water movement in the valley fill  
13 generally follows the surface topography and drainage except  
14 where geologic or man-made impediments occur or where the  
15 natural flow has been modified by extensive pumping.

16 4.2.3 Separate Ground Water Basins. The physical and  
17 geologic characteristics of each of the ground water basins,  
18 Eagle Rock, Sylmar, Verdugo and San Fernando, cause impedi-  
19 ments to inter-basin ground water flow whereby there is  
20 created separate underground reservoirs. Each of said basins  
21 contains a common source of water supply to parties extracting  
22 ground water from each of said basins. The amount of under-  
23 flow from Sylmar Basin, Verdugo Basin and Eagle Rock Basin to  
24 San Fernando Basin is relatively small, and on the average has  
25 been approximately 540 acre feet per year from the Sylmar  
26 Basin; 80 acre feet per year from Verdugo Basin; and 50 acre  
27 feet per year from Eagle Rock Basin. Each has physiographic,  
28 geologic and hydrologic differences, one from the other, and

1 each meets the hydrologic definition of "basin." The ex-  
2 tractions of water in the respective basins affect the other  
3 water users within that basin but do not significantly or  
4 materially affect the ground water levels in any of the other  
5 basins. The underground reservoirs of Eagle Rock, Verdugo and  
6 Sylmar Basins are independent of one another and of the San  
7 Fernando Basin.

8 4.2.4 Safe Yield and Native Safe Yield. The safe yield  
9 and native safe yield, stated in acre feet, of the three  
10 largest basins for the year 1964-65 was as follows:

<u>Basin</u>	<u>Safe Yield</u>	<u>Native Safe Yield</u>
San Fernando	90,680	43,660
Sylmar	6,210	3,850
Verdugo	7,150	3,590

15 The safe yield of Eagle Rock Basin is derived from imported  
16 water delivered by Los Angeles. There is no measurable  
17 native safe yield.

18 4.2.5 Separate Basins -- Separate Rights. The rights  
19 of the parties to extract ground water within ULARA are  
20 separate and distinct as within each of the several ground  
21 water basins within said watershed.

22 4.2.6 Hydrologic Condition of Basins. The several  
23 basins within ULARA are in varying hydrologic conditions,  
24 which result in different legal consequences.

25 4.2.6.1 San Fernando Basin. The first full year  
26 of overdraft in San Fernando Basin was 1954-55. It  
27 remained in overdraft continuously until 1968, when an  
28 injunction herein became effective. Thereafter, the

1 basin was placed on safe yield operation. There is no  
2 surplus ground water available for appropriation or  
3 overlying use from San Fernando Basin.

4 4.2.6.2 Sylmar Basin. Sylmar Basin is not in  
5 overdraft. There remains safe yield over and above the  
6 present reasonable beneficial overlying uses, from which  
7 safe yield the appropriative rights of Los Angeles and  
8 San Fernando may be and have been exercised.

9 4.2.6.3 Verdugo Basin. Verdugo Basin was in  
10 overdraft for more than five consecutive years prior to  
11 1968. Said basin is not currently in overdraft, due to  
12 decreased extractions by Glendale and Crescenta Valley on  
13 account of poor water quality. However, the combined  
14 appropriative and prescriptive rights of Glendale and  
15 Crescenta Valley are equivalent to the safe yield of the  
16 Basin. No private overlying or appropriative rights  
17 exist in Verdugo Basin.

18 4.2.6.4 Eagle Rock Basin. The only measurable  
19 water supply to Eagle Rock Basin is import return water  
20 by reason of importations by Los Angeles. Extractions by  
21 Foremost and Deep Rock under the prior stipulated  
22 judgments have utilized the safe yield of Eagle Rock  
23 Basin, and have maintained hydrologic equilibrium  
24 therein.

25  
26 5. DECLARATION OF RIGHTS

27 5.1 Right to Native Waters.

28 5.1.1 Los Angeles River and San Fernando Basin.

1                   5.1.1.1 Los Angeles' Pueblo Right. Los Angeles,  
2 as the successor to all rights, claims and powers of the  
3 Spanish Pueblo de Los Angeles in regard to water rights,  
4 is the owner of a prior and paramount pueblo right to the  
5 surface waters of the Los Angeles River and the native  
6 ground waters of San Fernando Basin to meet its reason-  
7 able beneficial needs and for its inhabitants.

8                   5.1.1.2 Extent of Pueblo Right. Pursuant to said  
9 pueblo right, Los Angeles is entitled to satisfy its  
10 needs and those of its inhabitants within its boundaries  
11 as from time to time modified. Water which is in fact  
12 used for pueblo right purposes is and shall be deemed  
13 needed for such purposes.

14                   5.1.1.3 Pueblo Right -- Nature and Priority of  
15 Exercise. The pueblo right of Los Angeles is a prior and  
16 paramount right to all of the surface waters of the Los  
17 Angeles River, and native ground water in San Fernando  
18 Basin, to the extent of the reasonable needs and uses of  
19 Los Angeles and its inhabitants throughout the corporate  
20 area of Los Angeles, as its boundaries may exist from  
21 time to time. To the extent that the Basin contains  
22 native waters and imported waters, it is presumed that  
23 the first water extracted by Los Angeles in any water  
24 year is pursuant to its pueblo right, up to the amount  
25 of the native safe yield. The next extractions by Los  
26 Angeles in any year are deemed to be from import return  
27 water, followed by stored water, to the full extent of  
28 Los Angeles' right to such import return water and stored

1 water. In the event of need to meet water requirements  
2 of its inhabitants, Los Angeles has the additional right,  
3 pursuant to its pueblo right, withdraw temporarily from  
4 storage Underlying Pueblo Waters, subject to an obliga-  
5 tion to replace such water as soon as practical.

6 5.1.1.4 Rights of Other Parties. No other party  
7 to this action has any right in or to the surface waters  
8 of the Los Angeles River or the native safe yield of the  
9 San Fernando Basin.

10 5.1.2 Sylmar Basin Rights.

11 5.1.2.1 No Pueblo Rights. The pueblo right of  
12 Los Angeles does not extend to or include ground waters  
13 in Sylmar Basin.

14 5.1.2.2 Overlying Rights. Defendants Moordigian  
15 and Hersch & Plumb own lands overlying Sylmar Basin and  
16 have a prior correlative right to extract native waters  
17 from said Basin for reasonable beneficial uses on their  
18 said overlying lands. Said right is appurtenant to said  
19 overlying lands and water extracted pursuant thereto may  
20 not be exported from said lands nor can said right be  
21 transferred or assigned separate and apart from said  
22 overlying lands.

23 5.1.2.3 Appropriative Rights of San Fernando  
24 and Los Angeles. San Fernando and Los Angeles own  
25 appropriative rights, of equal priority, to extract and  
26 put to reasonable beneficial use for the needs of said  
27 cities and their inhabitants, native waters of the  
28 Sylmar Basin in excess of the exercised reasonable

1 beneficial needs of overlying users. Said appropriative  
2 rights are:

3 San Fernando	3,580 acre feet
4 Los Angeles	1,560 acre feet.

5 5.1.2.4 No Prescription. The Sylmar Basin is not  
6 presently in a state of overdraft and no rights by  
7 prescription exist in said Basin against any overlying  
8 or appropriative water user.

9 5.1.2.5 Other Parties. No other party to this  
10 action owns or possesses any right to extract native  
11 ground waters from the Sylmar Basin.

12 5.1.3 Verdugo Basin Rights.

13 5.1.3.1 No Pueblo Rights. The pueblo right of  
14 Los Angeles does not extend to or include ground water  
15 in Verdugo Basin.

16 5.1.3.2 Prescriptive Rights of Glendale and  
17 Crescenta Valley. Glendale and Crescenta Valley own  
18 prescriptive rights as against each other and against  
19 all private overlying or appropriative parties in the  
20 Verdugo Basin to extract, with equal priority, the  
21 following quantities of water from the combined safe  
22 yield of native and imported waters in Verdugo Basin:

23 Glendale	3,856 acre feet
24 Crescenta Valley	3,294 acre feet.

25 5.1.3.3 Other Parties. No other party to this  
26 action owns or possesses any right to extract native  
27 ground waters from the Verdugo Basin.

1           5.1.4 Eagle Rock Basin Rights.

2                   5.1.4.1 No Pueblo Rights. The pueblo right of  
3 Los Angeles does not extend to or include ground water  
4 in Eagle Rock Basin.

5                   5.1.4.2 No Rights in Native Waters. The Eagle  
6 Rock Basin has no significant or measurable native safe  
7 yield and no parties have or assert any right or claim  
8 to native waters in said Basin.

9       5.2 Rights to Imported Waters.

10           5.2.1 San Fernando Basin Rights.

11                   5.2.1.1 Rights to Recapture Import Return Water.  
12 Los Angeles, Glendale, Burbank and San Fernando have each  
13 caused imported waters to be brought into ULARA and to be  
14 delivered to lands overlying the San Fernando Basin, with  
15 the result that percolation and return flow of such  
16 delivered water has caused imported waters to become a  
17 part of the safe yield of San Fernando Basin. Each of  
18 said parties has a right to extract from San Fernando  
19 Basin that portion of the safe yield of the Basin attri-  
20 butable to such import return waters.

21                   5.2.1.2 Rights to Store and Recapture Stored  
22 Water. Los Angeles has heretofore spread imported water  
23 directly in San Fernando Basin. Los Angeles, Glendale,  
24 Burbank and San Fernando each have rights to store water  
25 in San Fernando Basin by direct spreading or in lieu  
26 practices. To the extent of any future spreading or in  
27 lieu storage of import water or reclaimed water by Los  
28 Angeles, Glendale, Burbank or San Fernando, the party

1 causing said water to be so stored shall have a right to  
2 extract an equivalent amount of ground water from San  
3 Fernando Basin. The right to extract waters attributable  
4 to such storage practices is an undivided right to a  
5 quantity of water in San Fernando Basin equal to the  
6 amount of such Stored Water to the credit of any party,  
7 as reflected in Watermaster records.

8 5.2.1.3 Calculation of Import Return Water and  
9 Stored Water Credits. The extraction rights of Los  
10 Angeles, Glendale, Burbank and San Fernando in San  
11 Fernando Basin in any year, insofar as such rights are  
12 based upon import return water, shall only extend to the  
13 amount of any accumulated import return water credit of  
14 such party by reason of imported water delivered after  
15 September 30, 1977. The annual credit for such import  
16 return water shall be calculated by Watermaster based  
17 upon the amount of delivered water during the preceding  
18 water year, as follows:

19	Los Angeles:	20.8% of all delivered water (including reclaimed water) to 20 valley fill lands of San 21 Fernando Basin.
22	San Fernando:	26.3% of all imported and reclaimed water delivered to 23 valley-fill lands of San Fernando Basin.
24	Burbank:	20.0% of all delivered water (including reclaimed water) to 25 San Fernando Basin and its 26 tributary hill and mountain areas.

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Glendale: 20.0% of all delivered water (including reclaimed water) to San Fernando Basin and its tributary hill and mountain areas (i.e., total delivered water, [including reclaimed water], less 105% of total sales by Glendale in Verdugo Basin and its tributary hills).

In calculating Stored Water credit, by reason of direct spreading of imported or reclaimed water, Watermaster shall assume that 100% of such spread water reached the ground water in the year spread.

5.2.1.4 Cummulative Import Return Water Credits.

Any import return water which is not extracted in a given water year shall be carried over, separately accounted for, and maintained as a cummulative credit for purposes of future extractions.

5.2.1.5 Overextractions. In addition to extrac-

tions of stored water, Glendale, Burbank or San Fernando may, in any water year, extract from San Fernando Basin an amount not exceeding 10% of such party's last annual credit for import return water, subject, however, to an obligation to replace such overextraction by reduced extractions during the next succeeding water year. Any such overextraction which is not so replaced shall constitute physical solution water, which shall be deemed to have been extracted in said subsequent water year.

5.2.1.6 Private Defendant. No private defendant

is entitled to extract water from the San Fernando Basin on account of the importation of water thereto by overlying public entities.

1           5.2.2 Sylmar Basin Rights.

2                   5.2.2.1 Rights to Recapture Import Return Waters.

3           Los Angeles and San Fernando have caused imported waters  
4           to be brought into ULARA and delivered to lands overlying  
5           the Sylmar Basin with the result that percolation and re-  
6           turn flow of such delivered water has caused imported  
7           waters to become a part of the safe yield of Sylmar Basin.  
8           Los Angeles and San Fernando are entitled to recover from  
9           Sylmar Basin such imported return waters. In calculating  
10          the annual entitlement to recapture such import return  
11          water, Los Angeles and San Fernando shall be entitled to  
12          35.7% of the preceding water year's imported water de-  
13          livered by such party to lands overlying Sylmar Basin.  
14          Thus, by way of example, in 1976-77, Los Angeles was  
15          entitled to extract 2370 acre feet of ground water from  
16          Sylmar Basin, based on delivery to lands overlying said  
17          Basin of 6640 acre feet during 1975-76. The quantity of  
18          San Fernando's imported water to, and the return flow  
19          therefrom, in the Sylmar Basin in the past has been of  
20          such minimal quantities that it has not been calculated.

21                   5.2.2.2 Rights to Store and Recapture Stored

22          Water. Los Angeles and San Fernando each have the right  
23          to store water in Sylmar Basin equivalent to their rights  
24          in San Fernando Basin under paragraph 5.2.1.2 hereof.

25                   5.2.2.3 Carry Over. Said right to recapture

26          stored water, import return water and other safe yield  
27          waters to which a party is entitled, if not exercised in  
28          a given year, can be carried over for not to exceed five

1 years, if the underflow through Sylmar Notch does not  
2 exceed 400 acre feet per year.

3 5.2.2.4 Private Defendants. No private defendant  
4 is entitled to extract water from within the Sylmar Basin  
5 on account of the importation of water thereto by over-  
6 lying public entities.

7 5.2.3 Verdugo Basin Rights.

8 5.2.3.1 Glendale and Crescenta Valley. Glendale  
9 and Crescenta Valley own appropriative and prescriptive  
10 rights in and to the total safe yield of Verdugo Basin,  
11 without regard as to the portions thereof derived from  
12 native water and from delivered imported waters, notwith-  
13 standing that both of said parties have caused waters to  
14 be imported and delivered on lands overlying Verdugo  
15 Basin. Said aggregate rights are as declared in Para-  
16 graph 5.1.3.2 of these Conclusions.

17 5.2.3.2 Los Angeles. Los Angeles may have a  
18 right to recapture its import return waters by reason of  
19 delivered import water in the Basin, based upon reports  
20 during and after water year 1977-78, upon application to  
21 Watermaster not later than the year following such im-  
22 port and on subsequent order after hearing by the Court.

23 5.2.3.3 Private Defendants. No private defendant,  
24 as such, is entitled to extract water from within the  
25 Verdugo Basin on account of the importation of water  
26 thereto by overlying public entities.

27 5.2.4 Eagle Rock Basin Rights.

28 5.2.4.1 Los Angeles. Los Angeles has caused

1 imported water to be delivered for use on lands overlying  
2 Eagle Rock Basin and return flow from said delivered  
3 imported water constitutes the entire safe yield of Eagle  
4 Rock Basin. Los Angeles has the right to extract or  
5 cause to be extracted the entire safe yield of Eagle Rock  
6 Basin.

7 5.2.4.2 Private Defendants. No private defend-  
8 ants have a right to extract water from within Eagle Rock  
9 Basin, except pursuant to the physical solution herein.

10  
11 6. INJUNCTIONS

12 Each of the parties named or referred to in this Part 6, its  
13 officers, agents, employees and officials is, and they are, hereby  
14 ENJOINED and RESTRAINED from doing or causing to be done any of the  
15 acts herein specified:

16 6.1 Each and Every Defendant -- from diverting the surface  
17 waters of the Los Angeles River or extracting the native waters of  
18 SAN FERNANDO BASIN, or in any manner interfering with the prior and  
19 paramount pueblo right of Los Angeles in and to such waters,  
20 except pursuant to the physical solution herein decreed.

21 6.2 Each and Every Private Defendant -- from extracting  
22 ground water from the SAN FERNANDO, VERDUGO, or EAGLE ROCK BASINS,  
23 except pursuant to physical solution provisions hereof.

24 6.3 Defaulting and Disclaiming Parties (listed in Attachments  
25 "C" and "D") -- from diverting or extracting water within ULARA,  
26 except pursuant to the physical solution herein decreed.

27 6.4 Glendale -- from extracting ground water from SAN  
28 FERNANDO BASIN in any water year in quantities exceeding its

1 import return water credit and any stored water credit, except  
2 pursuant to the physical solution; and from extracting water from  
3 VERDUGO BASIN in excess of its appropriative and prescriptive right  
4 declared herein.

5 6.5 Burbank -- from extracting ground water from SAN FERNANDO  
6 BASIN in any water year in quantities exceeding its import return  
7 water credit and any stored water credit, except pursuant to the  
8 physical solution decreed herein.

9 6.6 San Fernando -- from extracting ground water from SAN  
10 FERNANDO BASIN in any water year in quantities exceeding its  
11 import return water credit and any stored water credit, except  
12 pursuant to the physical solution herein decreed.

13 6.7 Crescenta Valley -- from extracting ground water from  
14 VERDUGO BASIN in any year in excess of its appropriative and  
15 prescriptive right declared herein.

16 6.8 Los Angeles -- from extracting ground water from SAN  
17 FERNANDO BASIN in any year in excess of the native safe yield,  
18 plus any import return water credit and stored water credit of said  
19 city; provided, that where the needs of Los Angeles require the  
20 extraction of Underlying Pueblo Waters, Los Angeles may extract  
21 such water subject to an obligation to replace such excess as soon  
22 as practical; and from extracting ground water from VERDUGO BASIN  
23 in excess of any credit for import return water which Los Angeles  
24 may acquire by reason of delivery of imported water for use over-  
25 lying said basin, as hereinafter confirmed on application to  
26 Watermaster and by subsequent order of the Court.

27 6.9 Non-consumptive and Minimal Consumptive Use Parties.  
28 The parties listed in Attachment "F" are enjoined from extracting

1 water from San Fernando Basin, except in accordance with practices  
2 specified in Attachment "F", or pursuant to the physical solution herein decreed.

3  
4 7. CONTINUING JURISDICTION

5 7.1 Jurisdiction Reserved. Full jurisdiction, power and  
6 authority are retained by and reserved to the Court for purposes of  
7 enabling the Court upon application of any party or of the Water-  
8 master by motion and upon at least 30 days' notice thereof, and  
9 after hearing thereon, to make such further or supplemental orders  
10 or directions as may be necessary or appropriate, for interpreta-  
11 tion, enforcement or carrying out of this Judgment, and to modify,  
12 amend or amplify any of the provisions of this Judgment or to add  
13 to the provisions thereof consistent with the rights herein decreed;  
14 provided, however, that no such modification, amendment or ampli-  
15 fication shall result in a change in the provisions of Section  
16 5.2.1.3 or 9.2.1 hereof.

17  
18 8. WATERMASTER

19 8.1 Designation and Appointment.

20 8.1.1 Watermaster Qualification and Appointment. A  
21 qualified hydrologist, acceptable to all active public agency  
22 parties hereto, will be appointed by subsequent order of the  
23 Court to assist the Court in its administration and enforce-  
24 ment of the provisions of this Judgment and any subsequent  
25 orders of the Court entered pursuant to the Court's continuing  
26 jurisdiction. Such Watermaster shall serve at the pleasure of  
27 the Court, but may be removed or replaced on motion of any  
28 party after hearing and showing of good cause.

1           8.2 Powers and Duties.

2           8.2.1 Scope. Subject to the continuing supervision and  
3 control of the Court, Watermaster shall exercise the express  
4 powers, and shall perform the duties, as provided in this  
5 Judgment or hereafter ordered or authorized by the Court in  
6 the exercise of the Court's continuing jurisdiction.

7           8.2.2 Requirement for Reports, Information and Records.  
8 Watermaster may require any party to furnish such reports,  
9 information and records as may be reasonably necessary to  
10 determine compliance or lack of compliance by any party with  
11 the provisions of this Judgment.

12           8.2.3 Requirement of Measuring Devices. Watermaster  
13 shall require all parties owning or operating any facilities  
14 for extraction of ground water from ULARA to install and  
15 maintain at all times in good working order, at such party's  
16 own expense, appropriate meters or other measuring devices  
17 satisfactory to the Watermaster.

18           8.2.4 Inspection by Watermaster. Watermaster shall make  
19 inspections of (a) ground water extraction facilities and  
20 measuring devices of any party, and (b) water use practices by  
21 any party under physical solution conditions, at such times  
22 and as often as may be reasonable under the circumstances to  
23 verify reported data and practices of such party. Watermaster  
24 shall also identify and report on any new or proposed new  
25 ground water extractions by any party or non-party.

26           8.2.5 Policies and Procedures. Watermaster shall, with  
27 the advice and consent of the Administrative Committee, adopt  
28 and amend from time to time Policies and Procedures as may be

1 reasonably necessary to guide Watermaster in performance of  
2 its duties, powers and responsibilities under the provisions  
3 of this judgment.

4 8.2.6 Data Collection. Watermaster shall collect and  
5 verify data relative to conditions of ULARA and its ground  
6 water basins from the parties and one or more other govern-  
7 mental agencies. Where necessary, and upon approval of the  
8 Administrative Committee, Watermaster may develop supplemental  
9 data.

10 8.2.7 Cooperation With Other Agencies. Watermaster may  
11 act jointly or cooperate with agencies of the United States  
12 and the State of California or any political subdivisions,  
13 municipalities or districts (including any party) to secure or  
14 exchange data to the end that the purpose of this Judgment,  
15 including its physical solution, may be fully and economically  
16 carried out.

17 8.2.8 Accounting for Non-consumptive Use. Watermaster  
18 shall calculate and report annually the non-consumptive and  
19 consumptive uses of extracted ground water by each party  
20 listed in Attachment "F."

21 8.2.9 Accounting for Accumulated Import Return Water  
22 and Stored Water. Watermaster shall record and verify addi-  
23 tions, extractions and losses and maintain an annual and  
24 cumulative account of all (a) stored water and (b) import  
25 return water in San Fernando Basin. Calculation of losses  
26 attributable to Stored Water shall be approved by the Adminis-  
27 trative Committee or by subsequent order of the Court. For  
28 purposes of such accounting, extractions in any water year by

1 Glendale, Burbank or San Fernando shall be assumed to be first  
2 from accumulated import return water, second from stored  
3 water, and finally pursuant to physical solution; provided,  
4 that any such city may, by written notice of intent to Water-  
5 master, alter said priority of extractions as between import  
6 return water and stored water.

7 8.2.10 Recalculation of Safe Yield. Upon request of the  
8 Administrative Committee, or on motion of any party and sub-  
9 sequent Court order, Watermaster shall recalculate safe yield  
10 of any basin within ULARA. If there has been a material long-  
11 term change in storage over a base period (excluding any  
12 effects of stored water) in San Fernando Basin the safe yield  
13 shall be adjusted by making a corresponding change in native  
14 safe yield of the Basin.

15 8.2.11 Watermaster Report. Watermaster shall prepare  
16 annually and (after review and approval by Administrative  
17 Committee) cause to be served on all active parties, on or  
18 before May 1, a report of hydrologic conditions and Water-  
19 master activities within ULARA during the preceding water  
20 year. Watermaster's annual report shall contain such infor-  
21 mation as may be requested by the Administrative Committee,  
22 required by Watermaster Policies and Procedures or specified  
23 by subsequent order of this Court.

24 8.2.12 Active Party List. Watermaster shall maintain at  
25 all times a current list of active parties and their addresses.

26 8.3 Administrative Committee.

27 8.3.1 Committee to be Formed. An Administrative Commit-  
28 tee shall be formed to advise with, request or consent to, and

1 review actions of Watermaster. Said Administrative Committee  
2 shall be composed of one representative of each party having  
3 a right to extract ground water from ULARA, apart from the  
4 physical solution. Any such party not desiring to participate  
5 in such committee shall so advise Watermaster in writing.

6 8.3.2 Organization and Voting. The Administrative  
7 Committee shall organize and adopt appropriate rules and  
8 regulations to be included in Watermaster Policies and Pro-  
9 cedures. Action of the Administrative Committee shall be by  
10 unanimous vote of its members, or of the members affected in  
11 the case of an action which affects one or more basins but  
12 less than all of ULARA. In the event of inability of the  
13 Committee to reach a unanimous position, the matter may, at  
14 the request of Watermaster or any party, be referred to the  
15 Court for resolution by subsequent order after notice and  
16 hearing.

17 8.3.3 Function and Powers. The Administrative Committee  
18 shall be consulted by Watermaster and shall request or approve  
19 all discretionary Watermaster determinations. In the event of  
20 disagreement between Watermaster and the Administrative  
21 Committee, the matter shall be submitted to the Court for  
22 review and resolution.

23 8.4 Watermaster Budget and Assessments.

24 8.4.1 Watermaster's Proposed Budget. Watermaster  
25 shall, on or before May 1, prepare and submit to the Admin-  
26 istrative Committee a budget for the ensuing water year.  
27 The budget shall be determined for each basin separately and  
28 allocated between the separate ground water basins. The

1 total for each basin shall be allocated between the public  
2 agencies in proportion to their use of ground water from such  
3 basin during the preceding water year.

4 8.4.2 Objections and Review. Any party who objects to  
5 the proposed budget, or to such party's allocable share there-  
6 of, may apply to the Court within thirty (30) days of receipt  
7 of the proposed budget from Watermaster for review and modifi-  
8 cation. Any such objection shall be duly noticed to all in-  
9 terested parties and heard within thirty (30) days of notice.

10 8.4.3 Notice of Assessment. After thirty (30) days from  
11 delivery of Watermaster's proposed budget, or after the order  
12 of Court settling any objections thereto, Watermaster shall  
13 serve notice on all parties to be assessed of the amount of  
14 assessment and the required payment schedule.

15 8.4.4 Payment. All assessments for Watermaster expenses  
16 shall be payable on the dates designated in the notice of  
17 assessment.

18 8.5 Review of Watermaster Activities.

19 8.5.1 Review Procedures. All actions of Watermaster  
20 (other than budget and assessment matters, which are provided  
21 for in Paragraph 8.4.2) shall be subject to review by the  
22 Court on its own motion or on motion by any party, as follows:

23 8.5.1.1 Noticed Motion. Any party may, by a  
24 regularly noticed motion, apply to the Court for review  
25 of any Watermaster's action. Notice of such motion shall  
26 be served personally or mailed to Watermaster and to all  
27 active parties.

28 8.5.1.2 De Novo Nature of Proceedings. Upon the

1 filing of any such motion, the Court shall require the  
2 moving party to notify the active parties of a date for  
3 taking evidence and argument, and on the date so desig-  
4 nated shall review de novo the question at issue. Water-  
5 master's findings or decision, if any, may be received  
6 in evidence at said hearing, but shall not constitute  
7 presumptive or prima facie proof of any fact in issue.

8 8.5.1.3 Decision. The decision of the Court in  
9 such proceeding shall be an appealable supplemental order  
10 in this case. When the same is final, it shall be  
11 binding upon the Watermaster and all parties.

## 12 9. PHYSICAL SOLUTION

### 13 9.1 Circumstances Indicating Need for Physical Solution.

14 During the period between 1913 and 1955, when there existed tempor-  
15 ary surplus waters in the San Fernando Basin, overlying cities and  
16 private overlying landowners undertook to install and operate water  
17 extraction, storage and transmission facilities to utilize such  
18 temporary surplus waters. If the injunction against interference  
19 with the prior and paramount rights of Los Angeles to the waters of  
20 the San Fernando and Eagle Rock Basins were strictly enforced, the  
21 value and utility of those water systems and facilities would be  
22 lost or impaired. It is appropriate to allow continued limited  
23 extraction from the San Fernando and Eagle Rock Basins by parties  
24 other than Los Angeles, subject to assurance that Los Angeles will  
25 be compensated for any cost, expense or loss incurred as a result  
26 thereof.  
27

### 28 9.2 Prior Stipulated Judgments. Several defendants

1 heretofore entered into separate stipulated judgments herein,  
2 during the period June, 1958 to November, 1965, each of which  
3 judgments was subject to the Court's continuing jurisdiction.  
4 Without modification of the substantive terms of said prior judg-  
5 ments, the same are categorized and merged into this judgment and  
6 superseded hereby in the exercise of the Court's continuing juris-  
7 diction, as follows:

8           9.2.1 Eagle Rock Basin Parties. Stipulating defendants

9           Foremost and Deep Rock have extracted water from Eagle Rock  
10          Basin, whose entire safe yield consist of import return  
11          waters of Los Angeles. Said parties may continue to extract  
12          water from Eagle Rock Basin to supply their bottled drinking  
13          water requirements upon filing all required reports on said  
14          extraction with Watermaster and Los Angeles and paying Los  
15          Angeles annually an amount equal to \$21.78 per acre foot for  
16          the first 200 acre feet, and \$39.20 per acre foot for any  
17          additional water extracted in any water year.

18           9.2.2 Non-consumptive or Minimal-consumptive Operations.

19          Certain stipulating defendants extract water from San Fernando  
20          Basin for uses which are either non-consumptive or have a  
21          minimal consumptive impact. Each of said defendants who have  
22          a minimal consumptive impact has a connection to the City of  
23          Los Angeles water system and purchases annually an amount of  
24          water at least equivalent to the consumptive loss of extracted  
25          ground water. Said defendants are:

26                           Non-Consumptive

27                           Walt Disney Productions

28                           Sears, Roebuck & Co.



1           9.3.1 Private Defendants and Appropriate Cities. Said  
2 private defendants and the cities to which their said extrac-  
3 tions shall be charged and to which physical solution payment  
4 shall be made are:

	<u>Annual Quantities</u> <u>(acre feet)</u>
6 Los Angeles - Toluca Lake	100
7                           Sportsman's Lodge	25
8                           Van de Kamp	120
9 Glendale - Forest Lawn	400
Southern Service Co.	75
10 Burbank - Valhalla	300
Lockheed	25

11  
12 Provided that said private defendants shall not develop,  
13 install or operate new wells or other facilities which will  
14 increase existing extraction capacities.

15           9.3.2 Reports and Accounting. All extractions pursuant  
16 to this physical solution shall be subject to such reasonable  
17 reports and inspections as may be required by Watermaster.

18           9.3.3 Payment. Water extracted pursuant hereto shall  
19 be compensated for by annual payment to Los Angeles, and as  
20 agreed upon pursuant to paragraph 9.3.3.2 to Glendale and  
21 Burbank, thirty days from day of notice by Watermaster, on  
22 the following basis:

23           9.3.3.1 Los Angeles. An amount equal to what  
24 such party would have paid had water been delivered from  
25 the distribution system of Los Angeles, less the average  
26 energy cost of extraction of ground water by Los Angeles  
27 from San Fernando.

28           9.3.3.2 Glendale or Burbank. An amount equal to

1 the sum of the amount payable to Los Angeles under para-  
2 graph 9.4 hereof and any additional charges or conditions  
3 agreed upon by either such city and any private defendant.

4 9.4 Glendale and Burbank. Glendale and Burbank have each  
5 installed, during said years of temporary surplus, substantial  
6 facilities to extract and utilize waters of the San Fernando Basin.  
7 In addition to the use of such facilities to recover import return  
8 water, the distribution facilities of such cities can be most  
9 efficiently utilized by relying upon the San Fernando Basin for  
10 peaking supplies in order to reduce the need for extensive new  
11 surface storage. Glendale and Burbank may extract annual quanti-  
12 ties of ground water from the San Fernando Basin, in addition to  
13 their rights to import return water or stored water, as heretofore  
14 declared, in quantities up to:

15	Glendale	5,500 acre feet
16	Burbank	4,200 acre feet;

17 provided, that said cities shall compensate Los Angeles annually  
18 for any such excess extractions over and above their declared  
19 rights at a rate per acre foot equal to the average MWD price for  
20 municipal and industrial water delivered to Los Angeles during the  
21 fiscal year, less the average energy cost of extraction of ground  
22 water by Los Angeles from San Fernando Basin during the preceding  
23 fiscal year. Provided, further, that ground water extracted by  
24 Forest Lawn and Southern Service Co. shall be included in the  
25 amount taken by Glendale, and the amount extracted by Valhalla and  
26 Lockheed shall be included in the amount taken by Burbank. All  
27 water taken by Glendale or Burbank pursuant hereto shall be charged  
28 against Los Angeles' rights in the year of such extractions.

1 In the event of emergency, and upon stipulation or motion  
2 and subsequent order of the Court, said quantities may be enlarged  
3 in any year.

4 9.5 San Fernando. San Fernando delivers imported water on  
5 lands overlying the San Fernando Basin, by reason of which said  
6 city has a right to recover import return water. San Fernando does  
7 not have water extraction facilities in the San Fernando Basin, nor  
8 would it be economically or hydrologically useful for such facil-  
9 ities to be installed. Both San Fernando and Los Angeles have  
10 decreed appropriative rights and extraction facilities in the  
11 Sylmar Basin. San Fernando may extract ground water from the  
12 Sylmar Basin in a quantity sufficient to utilize its San Fernando  
13 Basin import return water credit, and Los Angeles shall reduce its  
14 Sylmar Basin extractions by an equivalent amount and receive an  
15 offsetting entitlement for additional San Fernando Basin extractions.

16 9.6 Effective Date. This physical solution shall be effec-  
17 tive on October 1, 1978, based upon extractions during water year  
18 1978-79.

19  
20 10. MISCELLANEOUS PROVISIONS

21 10.1 Designation of Address for Notice and Service. Each  
22 party shall designate the name and address to be used for purposes  
23 of all subsequent notices and service herein by a separate desig-  
24 nation to be filed with Watermaster within thirty (30) days after  
25 Notice of Entry of Judgment has been served. Said designation may  
26 be changed from time to time by filing a written notice of such  
27 change with the Watermaster. Any party desiring to be relieved  
28 of receiving notices of Watermaster activity may file a waiver of

1 notice on a form to be provided by Watermaster. Thereafter such  
2 party shall be removed from the Active Party list. For purposes of  
3 service on any party or active party by the Watermaster, by any  
4 other party, or by the Court, of any item required to be served  
5 upon or delivered to such party or active party under or pursuant  
6 to the Judgment, such service shall be made personally or by de-  
7 posit in the United States mail, first class, postage prepaid,  
8 addressed to the designee and at the address in the latest desig-  
9 nation filed by such party or active party.

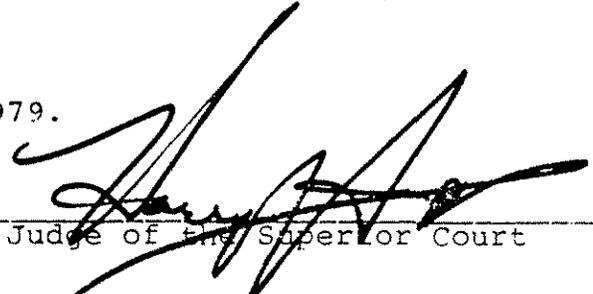
10 10.2 Notice of Change in Hydrologic Condition -- Sylmar Basin.

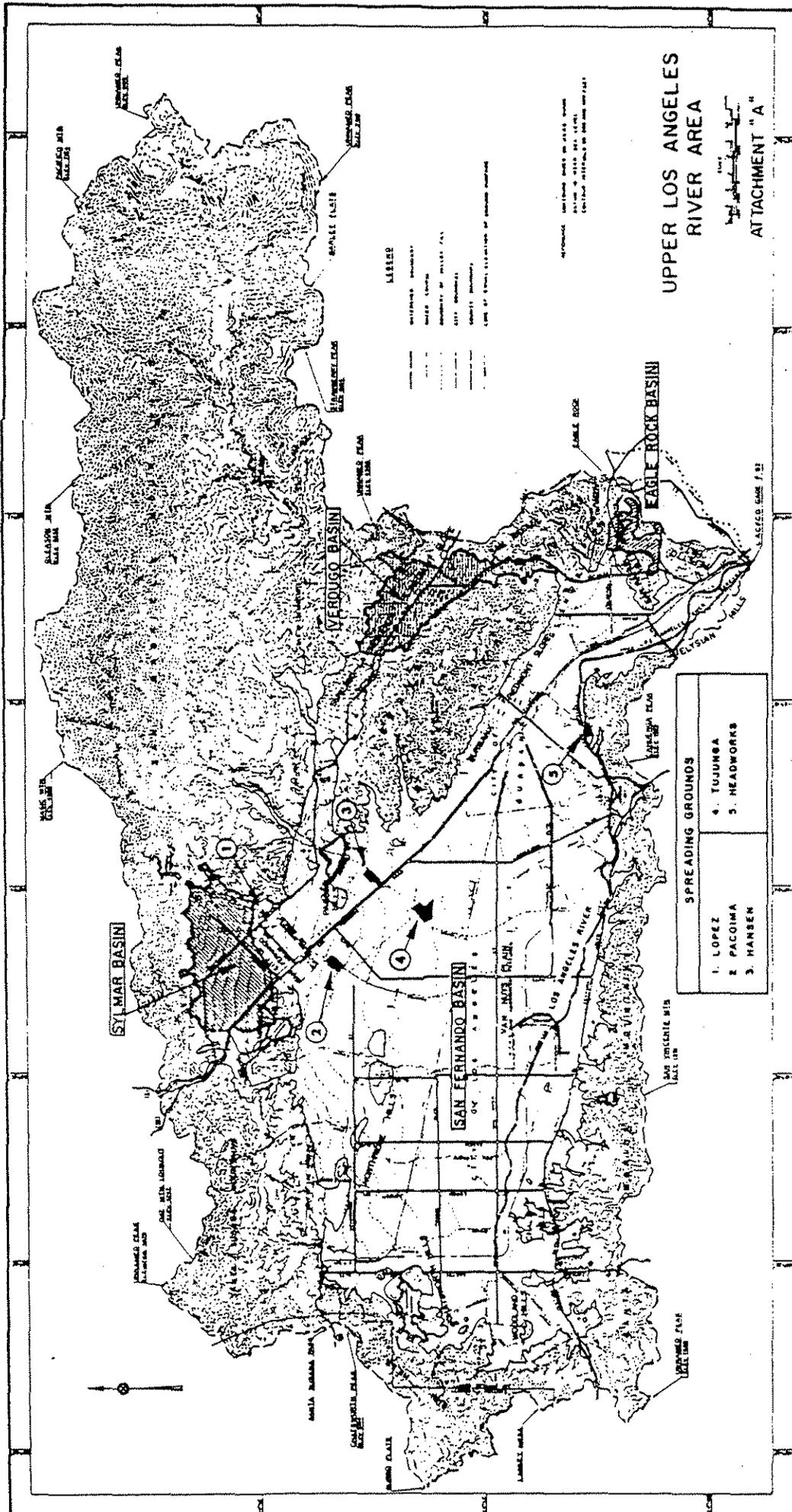
11 If Sylmar Basin shall hereafter be in a condition of overdraft due  
12 to increased or concurrent appropriations by Los Angeles and San  
13 Fernando, Watermaster shall so notify the Court and parties concern-  
14 ed, and notice of such overdraft and the adverse effect thereof on  
15 private overlying rights shall be given by said cities as prescribed  
16 by subsequent order of the Court, after notice and hearing.

17 10.3 Judgment Binding on Successors. This Judgment and all  
18 provisions thereof are applicable to and binding upon not only the  
19 parties to this action, but also upon their respective heirs,  
20 executors, administrators, successors, assigns, lessees and licen-  
21 sees and upon the agents, employees and attorneys in fact of all  
22 such persons.

23 10.4 Costs. Ordinary court costs shall be borne by each  
24 party, and reference costs shall be borne as heretofore allocated  
25 and paid.

26 DATED: Jan 26, 1979.

27  
28   
\_\_\_\_\_  
Judge of the Superior Court



UPPER LOS ANGELES  
RIVER AREA  
ATTACHMENT "A"

SPREADING GROUNDS	
1. LOPEZ	4. TUJUNGA
2. PACOIMA	5. HEADWORKS
3. HANSEN	

ATTACHMENT "B"  
LIST OF DISMISSED PARTIES

Adams, Catherine	Fitz-Patrick, Ada H.
Adair, Leo W.	Fitz-Patrick, C. C.
Anderson, Jesse E.	Frank X. Enderle, Inc., Ltd.
Anderson, Elizabeth A.	George, Florence H.
Anderson, Leland H.	George, Elton
Anderson, Bessie E.	Ghiglia, Frank P.
Bank of America, N.T. & S.A., (Trustee)	Givan, Amelia (Deceased)
Becker, Barbara	Glendale Junior College District of Los Angeles County
Beatrice Foods Company	Glendale Unified School District
Becker, Bert	Glenhaven Memorial Park, Inc.
Bishop, Elfreda M.	Griffith, Howard Barton
Bishop, William E.	Handorf, August V., Heirs of
Block, Leonard W.	Hanna, George
Block, Margery J.	Hicks, Forrest W., Executor of Estate of (California Bank)
Burbank C. U. School District	Houston-Fearless Corp., The
Busk, Rodney E.	Industrial Fuel Supply Co.
California, State of	Intervalley Savings & Loan Association
California Trust Company, (Trustee)	Julius, Adenia C.
California Trust Company, Trustee for First National Bank of Glendale	Julius, Louis A.
Citizens N.T.S. Bank of L.A., Trustee of M. M. Crenshaw	Kaesemeyer, Edna M.
Citizens National Trust & Savings Bank of Los Angeles	Karagozian, Charles
Citizens National Trust & Savings Bank of Los Angeles, Trustee, Deed of Trust 3724	Kates, Nathan as Co-Executor, Estate of Duckworth
Color Corporation of America	Kelley, June
Corporation of America	Kelley, Victor H.
Corporation of America, Trustee for Bank of America 32	Kiener, Harry, Deceased, Heirs of
Doe Corporation, 10-50	Knupp, Guy, Trustee
Doe 18-500	Landes, Clara Bartlett
Duckworth, John W., (Estate of)	Lentz, Richard
Equitable Life Assurance Society of the United States	Los Angeles County Flood Control District
Fidelity Federal Savings & Loan Association	Los Angeles Land and Water Company
	Los Angeles Trust and Savings Deposit Company (Safe)

Los Angeles Safe Deposit Company, Trustee for Security First National Bank of Los Angeles	Richardson, William L.
Los Angeles Trust and Safe Deposit Company, Trustee for H. Kiener	Security First National Bank of Los Angeles, Trustee
Lytle, Lydia L.	Security First National Bank of Los Angeles, Trustee for L. Schwaiger, etc.
Massachusetts Mutual Life Insurance Company	Smith, T. A.
Mahannah, E. E.	Smith, Sidney, Estate of, F. Small, Administrator
Mahannah, Hazel E.	Southern California Service Corp., Trustee for Verdugo Savings and Loan Association
M.C.A., Inc.	Sylmar Properties Inc.
Mangan, Blanche M.	Title Insurance and Trust Co., Trustee for Metropolitan Life Insurance Company, I. 1570
Mangan, Nicholas	Title Insurance and Trust Co., Trustee for Western Mortgage Company
McDougal, Murray	Title Guarantee & Trustee Company, Trustee
McDougal, Marian Y.	Title Insurance & Trust Company, Trustee for C. Fitz-Patrick
Mellenthin, Helen Louise	Title Insurance & Trust Company, Trustee for Intervalley Savings and Loan Association, 1114
Mellenthin, William	Title Insurance & Trust Company, for Fidelity Savings & Loan Association
Metropolitan Life Insurance Company	Title Insurance & Trust Company for Equitable Life Assurance Society, U.S.
Morgan, Kenneth H.	Union Bank & Trust Company of Los Angeles Trustee for B. Becker, et al.
Morgan, Anne	Valliant, Grace C.
Mulholland Orchard Company	Verdugo Savings & Loan Association
Mutual Life Insurance Company of New York	Warner Brothers Pictures, Inc.
Northwestern Mutual Life Insurance Company	Warner Ranch Company, Inc.
Oakmont Club	Walleck, Henry L., as Executor of the Estate of A. Givan
Oakwood Cemetery Association	Western Mortgage Company
Pasadena Savings & Loan Association	Wheeland, H. W.
Pagliai, Bruno	Wilcox, Ray C.
Pacific Lighting Corporation	Wise, Constance Julia
Pierce Brothers Mortuary	Wise, Robert Taylor
Premier Laundry Company, Inc.	Young, Donald M.
Pur-o-Spring Water Company	Young, Marcia S.
Renfrow, Mary Mildred	
Renfrow, Pleasant Thomas	
Reinert, H. C.	
Reinert, Laurotta	
Richardson, Helen I.	

ATTACHMENT "C"  
LIST OF DEFAULTED PARTIES

Aetna Life Insurance Company	Corporation of America, Trustee for Bank of America, I. 54
American Savings & Loan Association	Desco Corp.
Babikian, Helen	Diller, Michael
Bank of America, N.T. & S.A., Trustee	Erratchuo, Richard
Bannan, B. A.	Glendale Towel and Linen Supply Company
Bannan, Clotilde R.	Guyer, Irene W.
Berkemeyer, Henry W.	Herrmann, Emily Louise by Louis T. Herrmann, Successor In Interest
Berkemeyer, Hildur M.	
Bell, William M.	Hicks, Forrest W., Executor of Estate of (California Bank)
Bell, Sallie C.	
Borgia, Andrea, Estate of	Hidden Hills Corporation
Borgia, Frances	Holmgrin, Neva Bartlett
Brown, Stella M.	Hope, Lester Townes
Burns, George A.	Hope, Dolores Defina
Burns, Louise J.	Huston Homes (Doe Corporation 8)
California Bank, Trustee re Hollywood State Bank	Johnson, William Arthur, Sr. (Doe 11)
California Bank, Trustee	Johnson, Grace Luvena (Doe 12)
Citizens National Bank & Savings Bank of Los Angeles, Trust for W. Stavert	Jessup, Marguerite R., Trustee (for 6)
Citizens National Trust & Savings Bank of Los Angeles, Mort. I. 164	Jessup, Marguerite Rice
Citizens National Trust & Savings Bank of Los Angeles Trustee	Jessup, Roger
Citizens National Trust & Savings Bank of Los Angeles, Co-Trustee for Estate of A. V. Handorf	La Maida, James V. (Doe 10)
Clauson, Emma S.	La Marda, Tony (La Maida)
Continental Auxillary Company (Doe Corporation 1)	Lancaster, Paul E.
Cowlin, Josephine McC.	Lancaster, William
Cowlin, Donald G.	Land Title Insurance Company, as Trustee
Cowlin, Dorothy N.	Land Title Insurance Company
	Los Angeles Pet Cemetary
	Metropolitan Savings & Loan Association of Los Angeles
	Monteria Lake Association

Mosher, Eloise V.	Title Insurance and Trust Co., Trustee for J. McC. Cowlin
Mosher, W. E.	
Murray, Marie	Title Insurance and Trust Co., Trustee for P. E. Lancaster
Pacific Lighting and Gas Supply Co.	Title Insurance and Trust Co., Trustee T. I., Deed of Trust I. 829
Plemmons, Florence S.	
Plemmons, John R.	Title Insurance and Trust Co., Trustee for C. R. Bannan, et al.
Polar Water Company	
Pryor, Charles	Wheeland, Henry R.
Rauch, Phil	Wheeland, Elizabeth A.
Roger Jessup Farms	Woodward, E. C., Co-Trustee of the Estate of A. V. Handorf
Rushworth, Helen	Wright, Alice M.
Rushworth, Lester	Wright, J. Marion
Schwaiger, Cecil A.	Wright, Irene Evelyn
Schwaiger, Lester R.	Wright, Ralph Carver
Sealand Investment Corporation, Trustee for Metropolitan Savings & Loan Association	
Sealand Investment Corporation	
Smith, Florence S. (Plemmons)	
Southern Service Company, Ltd.	
Stavert, Walter W.	
Sun Valley National Bank of Los Angeles	
Title Insurance and Trust Co., Trustee T. I. Deed of Trust, I. 31, 32	
Title Insurance and Trust Co., Trustee for Intervalley Savings & Loan Association I. 2509	
Title Insurance & Trust Co., Trustee for Massachusetts Mutual Life Insurance Co.	
Title Insurance and Trust Co.	
Title Insurance and Trust Co., Trustee A.	
Title Insurance and Trust Co., Trustee for Sun Valley National Bank of Los Angeles	

ATTACHMENT "D"

DISCLAIMING PARTIES

Andrew Jergens Company, The

Boyar, Mark

Chace, William M.  
(dba V.P.L.C.)

DeMille, Cecil B., Estate of

Drewry Photocolor Corp.

Hayes, Hay B. (Hal)

Houston Color Film  
Laboratories, Inc.

Krown, Samuel P.

La Canada Irrigation District

Lakeside Golf Club (of Hollywood)

Lakewood Water & Power Company

Mack, Lucille

Mollin Investment Co.

Mulholland, P. & R., Trustees  
for R. Wood

Mulholland, Rose

Mulholland, Perry

Mulholland, Thomas

Mureau, Charles

Nathan, Julia N., Trustee

Oakmont Country Club

Platt, George E. Company

Richfield Oil Corporation

Riverwood Ranch Mutual Water  
Company

Smith, Benjamin B.

Southern California Edison  
Company

Spinks Realty Company

Sportsman's Lodge Banquet  
Corporation

Stetson, G. Henry

Technicolor Corporation

Valley Lawn Memorial Park

ATTACHMENT "E"

LIST OF PRIOR STIPULATED JUDGMENTS

<u>PARTY</u>	<u>DATE JUDGMENT FILED</u>
Akmdzich, Mary L.	July 24, 1959
Akmdzich, Peter J.	July 24, 1959
California Materials Company	July 24, 1959
Carnation Company	Nov. 20, 1958
Consolidated Rock Products Co.	July 24, 1959
Hidden Hills Mutual Water Company	March 11, 1965
Knickerbocker Plastic Company, Inc.	Feb. 15, 1960
Livingston Rock & Gravel Co., Inc.	July 24, 1959
Pacific Fruit Express Company	March 11, 1965
Pendleton, Evelyn M., dba Deep Rock Artesian Water Company	Nov. 1, 1965
Sears, Roebuck and Company	June 9, 1958
Southern Pacific Company	March 11, 1965
Sparkletts Drinking Water Corporation	Nov. 1, 1965
Valley Park Corporation	July 24, 1959
Walt Disney Productions	May 15, 1961
White, Constance Ray	Feb. 15, 1960
White, Leo L.	Feb. 15, 1960

1 ATTACHMENT "F"

2 STIPULATED

3 NON-CONSUMPTIVE OR MINIMAL-CONSUMPTIVE USE

4 PRACTICES

5 Non-Consumptive Uses

6  
7 Disney -- extracted ground water is used for air conditioning  
8 cooling water in a closed system, which discharges to the  
9 channel of the Los Angeles River and is subsequently spread  
10 and recharges San Fernando Basin, without measurable diminu-  
11 tion or loss.

12 Sears, Lockheed and Carnation -- extracted ground water, or a  
13 portion thereof, is used for air conditioning cooling in a  
14 closed system, which discharges to San Fernando Basin through  
15 an injection well.

16 Toluca Lake -- that portion of extracted ground water which is not  
17 consumptively used, by evaporation or otherwise, is circu-  
18 lated and passed through the lake to the channel of the Los  
19 Angeles River immediately upstream from Los Angeles' spread-  
20 ing grounds, where such water is percolated into the ground  
21 water of the Basin without measurable diminution or loss.

22 Sportsman's Lodge -- that portion of extracted ground water which  
23 is not consumptively used, by evaporation or otherwise, is  
24 circulated and passed through fish ponds and returned to  
25 channels tributary to Los Angeles River upstream from Los  
26 Angeles' spreading grounds, where such water is percolated  
27 into the ground water of the Basin without measurable loss.

28 - - - - -

MINIMAL-CONSUMPTIVE USES

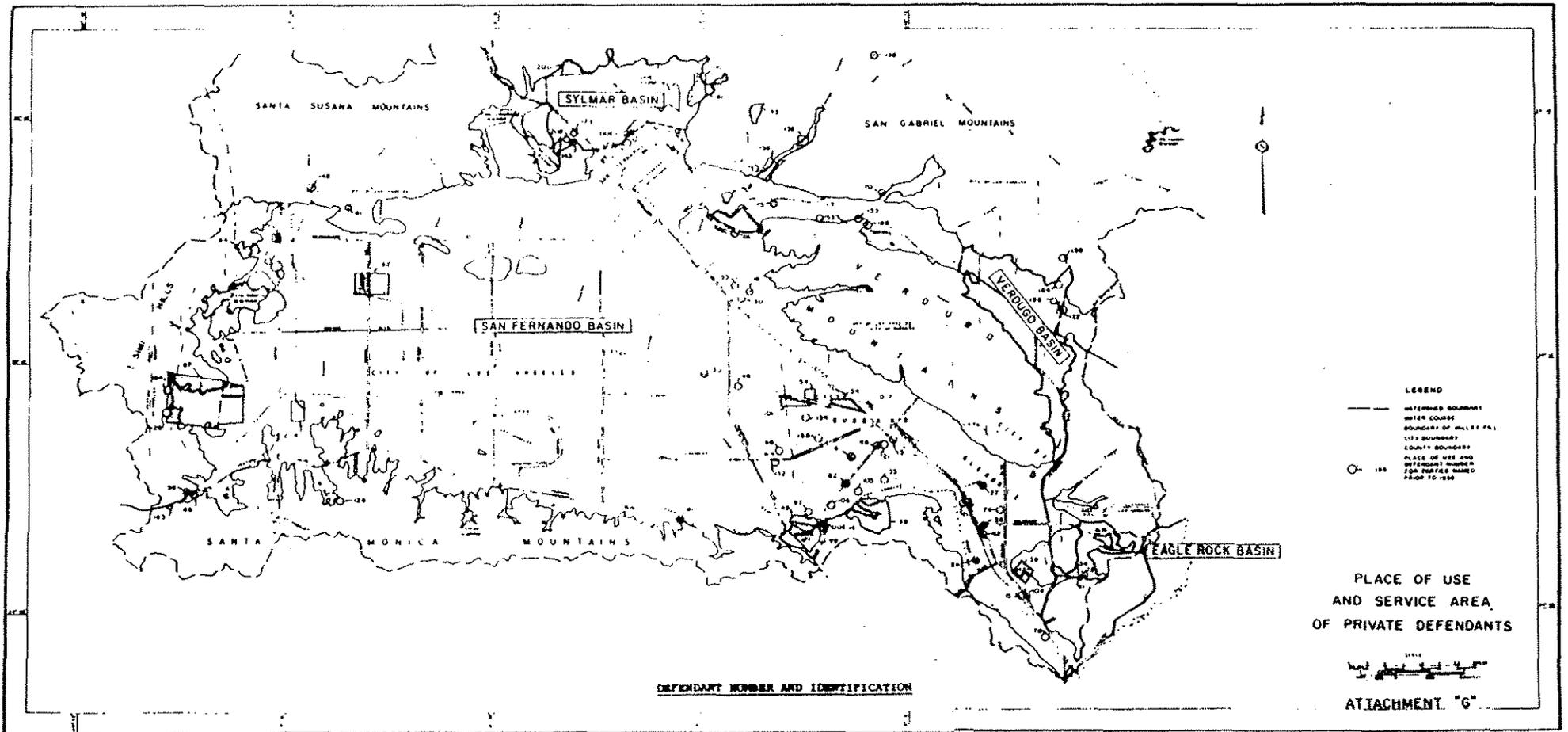
1  
2 Conrock

3 &

4 Livingston

-- extracted ground water is used in rock, sand and gravel, and ready-mix concrete operations with net consumptive use of 10%, with the remaining 90% returning to the ground water. Each party purchases surface water from Los Angeles in amounts at least equivalent to such consumptive losses.

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4	BURBANK UNIFIED SCHOOL DIST.	48	KWICKENBOCKER PLASTIC CO., INC.	76	SOUTHERN PACIFIC RAILROAD CO.	127	STELLA M. BROWN	188	FLORENCE S. FLEMINGS
6	L.A.C.F.C.D.	49	LAKESIDE GOLF CLUB OF HOLLYWOOD	77	SOUTHERN SERVICE CO., LTD.	128	MARK BOYAR	194	LESTER RUSHWORTH
13	THE ANDREW JENKINS CO.	53	LIVINGSTON ROCK & GRAVEL CO.	78	SPARKLETT'S DRINKING WATER COMP.	128	GEORGE A. BURNS	195	LESTER R. SCHWAIGER
15	BEATRICE POORE CO.	54	LOCKHEED AIRCRAFT CORP.	79	SPINGS REALTY CO.	132	WILLIAM M. CHACE	196	SIDNEY SMITH
18	CALIFORNIA MATERIALS CO.	56	LOS ANGELES PET CEMETERY	80	SPORTSMAN'S LODGE, INC.	134	EMMA L. CLAUSON	200	G. HENRY SYSTEM
21	CARMATION CO.	61	MONTERRIA LAKE ASSOC.	82	TACHICOLOR CORP.	138	CECIL B. DEMILLE	204	A. N. WARNER
30	CONSOLIDATED ROCK PROD. CO.	62	MULHOLLAND ORCHARD CO.	97	TOLUCA LAKE PROP. OWNERS ASSOC.	141	MAXINE DUCKWORTH	205	ELIZABETH A. WHEELAND
34	DEEP ROCK ARTESIAN WATER CO.	64	OSWOOD CEMETERY ASSOC.	99	UNIVERSAL PICTURES CO.	143	RICHARD ERRATCHUO	211	ALICE M. WRIGHT
35	DESDO CORP.	66	PACIFIC LIGHTING & GAS SUPPLY CO.	101	VALHALLA MEMORIAL PARK	148	HOWARD BARTON GRIFFITH	DOE CORP 4	MOLLIN INVESTMENT CORP.
36	DRENEY PHOTOCOLOR CORP.	67	GEORGE B. FLATT CO.	104	VAN DE KAMPS DUTCH BAKERS INC.	153	NEVA BARTLETT	DOE 1	EMILY LOUIS BERGGREN
39	FOREST LAWN CO.	68	POLAR WATER CO.	105	WALT DISNEY PRODUCTIONS	164	E. E. MAHANNAR	DOE 14	LESTER TOMES HOPE
41	FRESHFORD WATER CO.	70	RIVERWOOD RANCH MUTUAL WATER CO.	106	WARNER BROS. PICTURES, INC.	168	CELESTE LOUISE MCCABE		
42	GLENDALE TOWEL & LINEN SUPPLY CO.	71	ROGER JESSUP FARMS	117	WILLIAM O. BARTHOLOMAUS	173	KISAG MOORDICIAN		
43	GLENHAVEN MEMORIAL PARK, INC.	74	BEANS, ROEBUCK & CO.	120	HENRY M. BERKEMEYER	181	JOHN E. MULLIN		
46	HOUSTON COLOR FILM LAB, INC.	75	SOUTHERN CAL. EDISON CO.	122	KLFRIDA M. BISHOP	183	CHARLES MURKAO		

**Appendix B - ULARA Watermaster Annual Report, 2010-11**



# ANNUAL REPORT

## Upper Los Angeles River Area Watermaster

Re: City of Los Angeles vs. City of San Fernando, et al.  
Superior Court Case No. 650079 – County of Los Angeles

### WATERMASTER SERVICE IN THE UPPER LOS ANGELES RIVER AREA LOS ANGELES COUNTY, CALIFORNIA

2009-10 WATER YEAR

OCTOBER 1, 2009 – SEPTEMBER 30, 2010



MAY 2011

**ANNUAL REPORT**  
**UPPER LOS ANGELES RIVER AREA WATERMASTER**

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RE: CITY OF LOS ANGELES VS. CITY OF SAN FERNANDO, ET AL.  
CASE NO. 650079 - COUNTY OF LOS ANGELES

**WATERMASTER SERVICE**  
**IN THE**  
**UPPER LOS ANGELES RIVER AREA (ULARA)**  
**LOS ANGELES COUNTY, CALIFORNIA**

**2009-10 WATER YEAR**  
**OCTOBER 1, 2009 - SEPTEMBER 30, 2010**

**ULARA WATERMASTER**

Richard C. Slade, P.G.  
Richard C. Slade & Associates LLC

**GROUNDWATER HYDROLOGY/MODELING STAFF**

Hadi Jonny, P.E.  
LADWP

**WATERMASTER STAFF**

Anthony Hicke, CHG	Assistant to the Watermaster
Gregory Reed, P.E.	Civil Engineering Associate
Fatema Akhter	Civil Engineering Associate
Araceli Carrillo	Management Analyst
Billie Washington	Clerk Typist

Copies of this report may be viewed and downloaded from the ULARA Watermaster website  
located at <http://ularawatermaster.ladwp.com/>

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MAY 2011

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# **1. INTRODUCTION**

## 1. INTRODUCTION

### 1.1 Background

The Upper Los Angeles River Area (ULARA) encompasses the entire watershed of the Los Angeles River and its tributaries above (north of) a point in the river designated by the Los Angeles County Department of Public Works (LACDPW) as Gaging Station F-57C-R; this gage lies near the junction of the Los Angeles River and the Arroyo Seco (see Plate 1, "ULARA Location Map"). This ULARA watershed encompasses an approximate total of 328,500 acres of hill and mountain areas and intervening valley fill areas. Of this total watershed area, there are approximately 122,800 acres valley fill that comprise the four groundwater basins), whereas the remaining 205,700 acres are comprised by the tributary hills and mountains in the watershed. ULARA is bounded on the north and northwest by the Santa Susana Mountains; on the north and northeast by the San Gabriel Mountains; on the east by the San Rafael Hills, which separate ULARA from the San Gabriel Groundwater Basin; on the south by the Santa Monica Mountains, which separate ULARA from the Los Angeles Coastal Plain; and on the west by the Simi Hills.

Four distinct groundwater basins have been identified within the valley fill areas of ULARA: the San Fernando, Sylmar, Verdugo and Eagle Rock basins (refer to Plate 1). The groundwater reservoir comprising each of these basins is separated from the others and is considered to be replenished by the following sources: deep percolation from direct rainfall; infiltration of surface water runoff; and infiltration of a portion of the water that is delivered for use within these basins. Artificial recharge also occurs in the San Fernando Basin via the use of spreading basins whenever excess rainfall and runoff are available.

For this report, a groundwater basin is generally defined as a three-dimensional region that has reasonably-definable surface and subsurface boundaries and that contains layers and lenses of potentially water-bearing sediments which are capable of yielding groundwater in useable quantities and of acceptable quality for beneficial use. In short, a groundwater basin could be considered to represent an area underlain by permeable sediments capable of storing and yielding a substantial supply of potable groundwater to water-supply wells. For the four ULARA groundwater basins, the potentially water-bearing sediments are comprised by various young and old alluvial fan-type deposits. In the San Fernando and Sylmar basins, the potentially water-bearing sediments also

include various strata within the Saugus Formation that underlie the geologically younger and older alluvial-type deposits beneath the floor of the San Fernando Valley..

Exposed at ground surface in all of the hill and mountain watershed areas of ULARA, and also known to directly underlie all potentially water-bearing sediments within the four ULARA groundwater basins, are geologically older sedimentary rocks and even older metamorphic and crystalline rocks. These geologically older rocks are either well-lithified, cemented and/or crystalline in nature, and as such, they are considered to display only secondary porosity; their permeability is low to very low. Because of their lithified and/or cemented and/or crystalline character, these rocks do not contain water in the interstices between the individual sand or gravel grains, but rather the groundwater is contained within fractures, joints, and/or along bedding planes in the rocks. Hence, the groundwater storage capacity of these rocks is low and their long-term sustained yield is unpredictable; only limited quantities of water can be yielded to wells. For these reasons, these rocks are classified as nonwater-bearing for municipal-supply purposes in ULARA, and none of these older formations or rocks are considered part of the four ULARA groundwater basins.

The four ULARA groundwater basins are briefly described as follows:

THE SAN FERNANDO BASIN (SFB), the largest of the four basins, consists of 112,000 acres and comprises 91.2 percent of the total valley-fill area in ULARA. It is bounded on the east and northeast by the San Rafael Hills, Verdugo Mountains, and San Gabriel Mountains; on the north by the San Gabriel Mountains and the eroded south limb of the Little Tujunga syncline which separates it from the Sylmar Basin on the north; on the northwest and west by the Santa Susana Mountains and Simi Hills; and on the south by the Santa Monica Mountains. Plate 1A, "San Fernando Groundwater Basin Map," illustrates the boundaries of the SFB and the general locations of key wellfields in this basin that are owned by the cities of Burbank, Glendale and Los Angeles.

THE SYLMAR BASIN, which lies in the north-central portion of ULARA, consists of 5,600 acres and comprises 4.6 percent of the total valley fill in ULARA. It is bounded on the north and east by the San Gabriel Mountains; on the west by a topographic divide in the valley fill between the Mission Hills and the San Gabriel Mountains; on the southwest by the Mission Hills; on the east by the Saugus Formation along the

east bank of the Pacoima Wash; and on the south by the eroded south limb of the Little Tujunga syncline, which separates it from the SFB on the south. Plate 1B, "Sylmar Groundwater Basin Map," illustrates the boundaries of Sylmar Basin and the approximate locations of wells owned by the cities of Los Angeles and San Fernando.

THE VERDUGO BASIN, which lies north and east of the Verdugo Mountains, consists of approximately 4,400 acres and comprises 3.6 percent of the total valley fill in ULARA. It is bounded on the north by the San Gabriel Mountains; on the east by a groundwater divide separating it from the Monk Hill Subarea of the Raymond Groundwater Basin; on the southeast by the San Rafael Hills; and on the south and southwest by the Verdugo Mountains in ULARA. Plate 1C, "Verdugo Groundwater Basin Map," shows the boundaries of Verdugo Basin and the approximate locations of water wells owned by the City of Glendale and the Crescenta Valley Water District.

THE EAGLE ROCK BASIN, the smallest of the four ULARA groundwater basins, is in the extreme southeast corner of ULARA. It consists of approximately 800 acres and comprises only 0.6 percent of the total valley fill in ULARA. The boundaries of this small basin are shown on Plate 1D, "Eagle Rock Groundwater Basin Map"; note that there are no municipal-supply water wells in this basin.

## 1.2 History of Adjudication

Water rights in ULARA were established by the JUDGMENT AFTER TRIAL BY COURT in Los Angeles County Superior Court Case No. 650079, entitled The City of Los Angeles, a Municipal Corporation, Plaintiff, vs. City of San Fernando, et al., Defendants, signed March 14, 1968, by the Honorable Edmund M. Moor, Judge of the Superior Court. Numerous pre-trial conferences were held subsequent to the filing of the action by the City of Los Angeles in 1955 and also before the trial commenced on March 1, 1966.

On March 19, 1958, an Interim Order of Reference was entered by the Court directing the State Water Rights Board (now known as the State Water Resources Control Board, SWRCB) to study the availability of all public and private records, documents, reports, and data relating to a proposed Order of Reference in the case. On June 11, 1958, the

Court subsequently entered an "Order of Reference to State Water Rights Board to Investigate and Report upon the Physical Facts (Section 2001, Water Code)".

A Final Report of Referee was approved on July 27, 1962 and filed with the Court. The Report of Referee provided the results of a study of the surface and subsurface geology, the occurrence and movement of groundwater, aquifer characteristics, and the surface hydrology. In addition, investigations were made of the history of: channels of the Los Angeles River and its tributaries; the general directions of groundwater flow within the area; the groundwater quality and the historic extractions of groundwater in the four basins; and all sources of water, whether they be diverted, extracted, imported, etc within the ULARA basins. The Report of Referee served as the principal basis for the geological, hydrogeological and hydrological facts for the original Trial Court Judgment in 1968, the Decision of the Supreme Court in 1975 (14 Cal 3d 199, 123 Cal Rept 1), and the Trial Court Final Judgment on remand on January 26, 1979.

The Trial Court issued its opinion on March 15, 1968. The City of Los Angeles filed an appeal from the Judgment of the Trial Court with the Court of Appeal, whereafter the City of Los Angeles participated in a hearing on November 9, 1972 conducted by the Court of Appeal. The opinion prepared by Judge Compton, was issued on November 22, 1972, and was concurred with by Judges Roth and Fleming. It provided a reversal, with direction, of the original Judgment handed down by Judge Moor on March 14, 1968. In essence, this reversed opinion gave rights to the City of Los Angeles for all water in ULARA, including the use of the groundwater in the local groundwater basins, along with some limited entitlements to others. The defendants, however, were given the right to capture "import return water", which was considered to be that portion of the treated surface water purchased from (and imported to the area by) the Metropolitan Water District of Southern California (MWD) that percolates back into the local groundwater basin.

A petition for rehearing was filed on December 7, 1972, but this petition was denied by the Court of Appeal. On January 2, 1973, the defendants filed a petition for hearing with the State Supreme Court. The State Supreme Court, on March 2, 1973, advised the parties it would hear the case, and the appeals hearing began on January 14, 1975.

On May 12, 1975, the California Supreme Court filed its opinion on the then-current 20 year-long San Fernando Groundwater Basin litigation. This opinion, which became final on August 1, 1975, upheld the Pueblo Water Rights of the City of Los Angeles to all

groundwater in the SFB derived from precipitation (infiltration of direct rainfall plus surface water runoff) within ULARA. The Pueblo Water Rights of Los Angeles were not allowed to extend to and/or include the groundwater in the Sylmar, Verdugo or Eagle Rock basins. However, all surface and groundwater underflows from these adjoining groundwater basins were considered to be a part of the Pueblo Water Rights of the City of Los Angeles.

The California Superior Court opinion also provided the City of Los Angeles with rights to all groundwater in the SFB that was derived from water imported by the City from outside ULARA that was eventually spread or delivered within the SFB. The Cities of Glendale and Burbank were also given rights to all SFB groundwater derived from water that each imports from outside ULARA and delivered within ULARA. Because the City of San Fernando was not a member of MWD until the end of 1971, and because that city had never imported any water from outside ULARA prior to 1971, the City of San Fernando was given no return flow rights based on a March 22, 1984 stipulation between the cities of Los Angeles and San Fernando.

The California Supreme Court reversed the principal judgment of the March 15, 1968 Trial Court opinion and remanded the case back to the Superior Court for further proceedings consistent with the Supreme Court's opinion. On remand, the case was assigned to the Honorable Harry L. Hupp, Judge of the Superior Court of Los Angeles County. The Final Judgment (Judgment), signed by Judge Hupp, was entered on January 26, 1979; copies of this Judgment are available from the ULARA Watermaster. Importantly, the water rights set forth in the Judgment are generally consistent with the opinion of the Supreme Court as described above, with the exception of a provision regarding the calculation of Import Return Credit. That is, contrary to the Supreme Court opinion, the cities of Burbank, Glendale and Los Angeles in 1978 agreed to use all delivered water, instead of only imported water, in the calculation of Import Return Credit. This agreement among these cities has had a significant adverse impact on groundwater storage in the San Fernando Basin, as discussed later in this report.

In addition, the January 26, 1979 Judgment includes provisions and stipulations regarding water rights, storage of water, stored water credits, and arrangements for physical solution water for certain parties as recommended by the Supreme Court.

A separate stipulation was filed in Superior Court on January 26, 1979 appointing Mr. Melvin L. Blevins as the original ULARA Watermaster under the Judgment in this case. On September 1, 2003, Mr. Mark G. Mackowski was appointed ULARA Watermaster by the Superior Court, succeeding Mr. Blevins after his 24 years of service. On January 1, 2009, Mr. Richard C. Slade of Richard C. Slade and Associates LLC, Consulting Groundwater Geologists, was appointed as the first completely independent ULARA Watermaster, thereby succeeding Mr. Mark Mackowski after his 5 years of service.

On August 26, 1983, the original ULARA Watermaster (Mr. Blevins) reported to the Court, pursuant to Section 10.2 of the Judgment, that the Sylmar Basin was in a condition of overdraft. In response to the Watermaster's letter and a Minute Order of the Court, the cities of Los Angeles and San Fernando responded by letter to the Court, agreeing with the Watermaster's report on overdraft in the Sylmar Basin. On March 22, 1984, Judge Hupp signed a stipulation ordering, effective October 1, 1984, that the cities of Los Angeles and San Fernando would be limited in their pumping from the Sylmar Basin in order to bring their total groundwater extractions within the safe yield of this basin, including any rights exercised by private parties.

Pursuant to Judgment Section 8.2.10, the Watermaster increased the safe yield of the Sylmar Basin on a temporary basis in 1996, from 6,210 acre-feet per year (AF/y) to 6,510 AF/y. On October 1, 2005 this temporary increase expired, and the Watermaster again re-evaluated the safe yield of the Sylmar Basin. Based on that re-evaluation, a recommendation was made in 2006 to increase the total safe yield of this basin to 6,810 AF/y (3,405 AF/y each for the cities of Los Angeles and San Fernando), subject to certain conditions and requirements, including the possible construction of four groundwater monitoring wells to help determine groundwater outflow from the Sylmar Basin into the San Fernando Basin to the south. The Court approved the new stipulation after its hearing on December 13, 2006. Another re-evaluation of the safe yield of this basin by the Watermaster is required in December, 2011.

In September 2007, the cities of Burbank, Glendale, and Los Angeles entered into a 10-year Stipulated Agreement to address the long-term decline in stored groundwater in the San Fernando Basin (see Section 2.9 of this report and Appendix G). This 10-year interim agreement restricts the pumping of Stored Water Credits, helps account for basin losses, and provides for the support of Los Angeles for enhancing the recharge of native water within this basin. It also provided for a re-evaluation of the safe yield of the San

Fernando Basin. A draft of the report prepared by a private engineering company retained by the ULARA Administrative Committee was provided in late-2009. Based on review of the Draft report, the Technical Committee, Mr. Blevins, and the Watermaster recommended to the Administrative Committee to not finalize the document.

Table 1-1, "Judges of Record," lists the judges (and their respective date of appointment) who have succeeded the original Superior Court Judge (Judge Hupp); it was Judge Hupp who signed the Final Judgment in this case as Judge of Record for the San Fernando Judgment in 1979.

**TABLE 1-1: JUDGES OF RECORD**

<b>Judge</b>	<b>Date Appointed</b>
Vernon G. Foster	April 30, 1985
Miriam Vogel	January 16, 1990
Sally Disco	May 25, 1990
Jerold A. Krieger	April 16, 1991
Gary Klausner	December 9, 1991
Ricardo A. Torres	January 1, 1993
Susan Bryant-Deason	January 1, 1999

### 1.3 Extraction Rights

The extraction rights under the January 26, 1979 Judgment and the separate August 26, 1983 Sylmar Basin Stipulation are as follows:

#### 1.3A San Fernando Basin

##### Native Water

The City of Los Angeles has an exclusive right to extract and utilize all the native safe yield water in the San Fernando Basin; refer to Plate 1A for the boundaries of this basin. This native safe yield, which was originally determined to be an average of 43,660 AF/y, represents the Pueblo Water Right of the City of Los Angeles under the Final Judgment dated January 26, 1979.

##### Import Return Water

The cities of, Burbank, Glendale, and Los Angeles each have a right to extract the following amounts of groundwater from the SFB.

Burbank: 20.0 percent of all delivered water, including recycled water, to the valley fill land of the SFB and all of its tributary hill and mountain areas.

Glendale: 20.0 percent of all delivered water, including recycled water, to the valley fill land of the SFB and all of its tributary hill and mountain areas.

Los Angeles: 20.8 percent of all delivered water, including recycled water, to the valley fill land of the SFB and all of its tributary hill and mountain areas.

##### Physical Solution Water

Several parties are granted limited entitlement to extract groundwater chargeable to the rights of others upon payment of specified charges. Table 1-2 "Physical Solution Parties," lists the various pumping parties and their maximum physical solution pumping volumes in units of acre feet per year (AF/y).

**TABLE 1-2: PHYSICAL SOLUTION PARTIES**

<b>Chargeable Party</b>	<b>Pumping Party</b>	<b>Allowable Pumping (acre-feet)</b>
City of Burbank	Valhalla	300
	Lockheed-Martin	25
City of Glendale	Forest Lawn	400
	Angelica Healthcare <sup>2</sup>	75
City of Los Angeles	City of Glendale	5,500
	City of Burbank	4,200
	Middle Ranch	50
	Hathaway	60
	Van de Kamp <sup>1</sup>	120
	Toluca Lake	100
	Sportsmen’s Lodge	25
	Water Licenses	83

1. Van de Kamp has never pumped its physical solution right.
2. Angelica Healthcare no longer pumps its physical solution rights.

Stored Water

Each of the cities of Burbank, Glendale, and Los Angeles has a right to store groundwater and the right to extract equivalent amounts of groundwater from the SFB.

**1.3B Sylmar Groundwater Basin**

Native Water

The March 22, 1984 Stipulation assigned the cities of Los Angeles and San Fernando equal rights to the total safe yield of the Sylmar Basin (see basin boundaries on Plate 1B). On the recommendation of the original Watermaster, and on July 16, 1996, the Administrative Committee approved a temporary increase in the safe yield of this basin from 6,210 AF/y to 6,510 AF/y for a 10-year period. The temporary 10-year period ended on October 1, 2005, and triggered a re-evaluation of the safe yield of this basin by the original Watermaster. The Watermaster conducted the safe yield re-evaluation consistent

with Section 8.2.10 of the Judgment. Another Stipulation approved by the Court on December 13, 2006 permitted a temporary increase in the safe yield of the Sylmar Basin to 6,810 AF/Y, beginning October 1, 2006. This Stipulation provides that the safe yield of the Sylmar Basin shall be re-evaluated within five years of its adoption (i.e., by December 13, 2011).

The only potentially active private party with overlying rights within the Sylmar Basin is Santiago Estates, a successor to Meurer Engineering, M.H.C. Inc. Any pumping by Santiago Estates is deducted from the safe yield of this basin and the cities of Los Angeles and San Fernando are permitted to equally divide the remainder of the safe yield value of basin. However, Santiago Estates has not pumped any groundwater since the 1998-99 Water Year.

#### Stored Water

Each of the cities of Los Angeles and San Fernando has a right to store groundwater by in-lieu practices and a right to extract equivalent amounts of groundwater from the Sylmar Basin.

### **1.3C Verdugo Groundwater Basin**

#### Native Water

The City of Glendale and the Crescenta Valley Water District (CVWD) have appropriative and prescriptive rights to extract 3,856 and 3,294 AF/y of groundwater, respectively, from Verdugo Basin; refer to Plate 1C for the boundaries of this basin.

#### Import Return Water

The City of Los Angeles may have a right to recapture delivered imported water in this basin upon application to the Watermaster and on subsequent order after a hearing by the Court pursuant to Section 5.2.3.2 of the Judgment.

#### Stored Water

There are no storage rights for any party in the Verdugo Basin based on the Judgment.

### **1.3D Eagle Rock Basin**

#### Native Water

The Eagle Rock Basin has only a limited native safe yield. Plate 1D provides the approximate boundaries of this small groundwater basin.

#### Imported Return Water

The City of Los Angeles delivers imported water to lands overlying this groundwater basin, and return flow from this delivered water is considered to constitute the majority of the safe yield of the basin. Los Angeles has the right to extract, or to allow to be extracted, the entire safe yield of this groundwater basin.

#### Physical Solution Water

DS Waters (successor to Sparkletts and Deep Rock water companies) has a physical solution right to extract groundwater from Eagle Rock Basin pursuant to a stipulation with the City of Los Angeles, and as provided for in Section 9.2.1 of the Judgment.

#### Stored Water

There are no storage rights for any party in the Eagle Rock Basin, based on the Judgment, dated January 26, 1979.

### **1.4 Watermaster Service and Administrative Committee**

In preparing this Annual Watermaster Report, the Watermaster support staff at the Los Angeles Department of Water and Power (LADWP) continued to collect and record a large amount of information affecting and relating to the water supply, water use and disposal, groundwater levels, water quality, and the ownership and location of all new water-supply wells within ULARA. Groundwater pumpers are required to report their extractions on a monthly basis to the Watermaster. This allows the Watermaster staff at LADWP to update the Watermaster water production accounts on a monthly basis, from which the allowable pumping by each party for the remainder of the year is determined.

Section 8.3 of the Judgment established an Administrative Committee for the purpose of advising the Watermaster in the administration of his duties. The current duly appointed members of the Committee are:

CITY OF BURBANK

Bill Mace (Committee Chair)

Matt Elsner (Alternate)

CITY OF GLENDALE

Peter Kavounas (Committee Vice-Chair)

Patrick Hayes (Alternate)

CITY OF SAN FERNANDO

Ron Ruiz

Robert Braden (Alternate)

CITY OF LOS ANGELES

Mark Aldrian

Milad Taghavi (Alternate)

CRESCENTA VALLEY WATER DISTRICT

Dennis Erdman

David Gould (Alternate)

The Watermaster may convene the Administrative Committee at any time in order to seek its advice. Each year the Administrative Committee is also responsible for reviewing and approving the proposed annual report prepared by the Watermaster. The Administrative Committee met on January 20, April 21, and September 15, 2010 of the 2009-10 Water Year; no July meeting was held due to scheduling conflicts. The Administrative Committee approved the 2009-10 Watermaster Report on May 2, 2011.

### **1.5 Significant Events through April 2011**

*Groundwater System Improvement Study (GSIS)*

In February 2009, the Los Angeles Department of Water and Power (LADWP) began a six year, approximately \$19 million GSIS in the San Fernando Basin to evaluate the groundwater quality near its major wellfields and to recommend treatment options that will enable Los Angeles to fully recover the full use of its groundwater supply. The LADWP plans to begin drilling a network of 26 groundwater monitoring wells in this basin by summer 2011 and these wells will provide vital water quality information necessary for the study.

LADWP is also pursuing other efforts to study groundwater treatment alternatives and to develop projects that will expedite its groundwater recovery goals. These efforts include evaluating the use of bio-remediation and advanced oxidation for groundwater treatment and testing these methods on a pilot scale implementation.

#### Burbank Operable Unit (BOU)

The BOU, operated by Burbank under a contract with APT, Inc., and funded by Lockheed-Martin, removes volatile organic compounds (VOCs) from groundwater. The City of Burbank, in cooperation with the United States Environmental Protection Agency (USEPA) and Lockheed-Martin, continued with design improvements and operational changes to make the facility mechanically more reliable at its design capacity of 9,000 gallons per minute (gpm). During the 2009-10 Water Year, a total of 10,043 AF of groundwater were treated at the BOU; this volume is about 255 AF greater than the volume treated in the prior year. As a requirement of the Consent Decree, Burbank also reduces the levels of nitrate through its blending facility using imported supplies from MWD before delivery to the City of Burbank.

In 2004-05, the USEPA gave approval to modify the vapor-phase granular activated carbon (GAC) vessels at the BOU. Modifications to the vapor-phase GAC vessels were completed in 2008, resulting in the increased production and reliability noted above.

Montgomery Watson Harza (MWH) was retained by Burbank to perform a Well Field Performance Attainment Study that evaluated the well field and related facilities in an effort to increase groundwater extractions to 9,000 gpm. As a part of this work, a 60-day "stress test" was requested by the EPA. A total discharge rate of 9,000 gpm was pumped from six BOU wells for a period of 60 days. Because air temperatures in the month of July when the test was performed were not unusually warm, water demand was not high, and therefore, the BOU pumping rate was reduced to about 8,700 gpm for a portion of the test. In addition, declining water levels in the BOU wells also necessitated the reduction of the pumping rates. Based on the results of this pumping test, the possibility of deflating the existing packers in the BOU wells is now under discussion.

### Glendale Operable Unit (GOU)

The GOU removes VOCs and has the capability of treating up to a total of 5,000 gpm from the Glendale North and South Operable Unit well fields. Treated water is blended with imported MWD supplies to reduce nitrate and hexavalent chromium levels. The GOU treated 7,933.2 AF during the 2009-10 Water Year.

As reported by Glendale, one of the biggest challenges in operating the GOU is maintaining the capacities of the wells. While the wells are intended to run full-time (i.e., 24 hours a day, 365 days a year), they are in their 11th year of operation and each of the wells are in need of re-development to restore their original capacities. Also, issues with power and communications reliability in the GOU wellfield have resulted in additional interruptions to well production.

In an effort to control hexavalent chromium levels, the GOU operates under a modified pumping plan approved by the USEPA that varies from the original Consent Decree. The modified pumping plan allows reduced pumping from high-chromium wells, and increased pumping from low-chromium wells.

Glendale has continued to pursue an aggressive research program to identify viable treatment technologies for the removal of hexavalent chromium. The wellhead treatment system at Well GS-3, known as the WBA Chromium Removal Demonstration (WBA-CRD) facility, has been effective at removing chromium to below 5 ppb.

### North Hollywood Operable Unit (NHOU)

The NHOU, funded in part by a Consent Decree from the United States Environmental Protection Agency (USEPA), was designed to remove volatile organic compounds (VOCs) at a groundwater pumping rate of 2,000 gpm using a system of seven extraction wells and an air-stripping tower. The 15-year Consent Decree expired on December 31, 2004. The USEPA has stated that there are sufficient funds to continue operation and maintenance of the NHOU into 2012. However, the NHOU did not preclude the continued migration of the VOC plume as expected, and some VOCs have been detected at nearby LADWP municipal-supply well fields.

In September 2009, USEPA issued its Record of Decision (ROD) for the NHOU Second Interim Remedy (NHOU IR2). To increase the effectiveness of plume containment and contaminant removal, the plan provides for deepening of several of the existing

extraction wells, and constructing new wells and a treatment facility in order to treat VOCs, chromium, 1,4 dioxane and other contaminants of concern.

Hexavalent chromium levels have increased significantly, forcing LADWP to discontinue operating one of its NHOU wells. Under a Cleanup and Abatement Order issued by the Los Angeles Regional Water Quality Control Board (LARWQCB), Honeywell began operating this well to treat and discharge the effluent to the sewer while remedial alternatives are being evaluated. Honeywell has also constructed 28 groundwater monitoring wells to further characterize the water quality and hydrogeology of the area, and may install additional wells in the near future.

At this time, LADWP is limited in operating its other NHOU wells and pumping rates for these wells have dropped below the design flow due to a decline in the groundwater table. Two other wells were shutdown, also due to this decline. A total of 1,177 AF of groundwater were treated during the 2009-10 Water Year.

#### Pollock Wells Treatment Plant

LADWP's Pollock Wells Treatment Plant treats groundwater pumped from two Pollock wells utilizing four liquid-phase granular activated carbon (GAC) vessels at a total design flow of 3,000 gpm. The Pollock Wells Treatment Plant was designed to absorb trichloroethylene (TCE) and perchloroethylene (PCE), but the unexpected occurrence of 1,1-dichloroethene is exhausting the GAC before TCE or PCE is detected at the mid-point of the GAC vessel. The primary purpose of the facility is to prevent the loss of groundwater through the Los Angeles River Narrows due to rising groundwater outflow. An evaluation of the Pollock area was performed in 1990 and revealed that an average of approximately 2,000 AF/y of excess rising groundwater was occurring in the Los Angeles River Narrows as a result of delivered water, precipitation, and percolation along the unlined portion of the river within the Narrows area. This is part of Los Angeles' water right, and much of it is lost from the SFB when the Pollock wells are not being pumped. During Water Year 2009-10, a total of 3,119 AF of groundwater was pumped for treatment at this site.

### Tujunga Well Field Liquid-Phase Granular Activated Carbon Project

The Temporary Tujunga Well Field Treatment Study Project has restored the use of two of the 12 water wells in this wellfield and approximately 12,000 AF/y of pumping capacity that were unavailable due to water quality constraints.

The project included the installation of liquid-phase GAC vessels on Well Nos. 6 and 7 to process pumped groundwater and remove VOCs such as TCE, PCE, carbon tetrachloride, and 1,1 dichloroethene (DCE).

Operational testing began in November 2009 with the test water being conserved by discharging the effluent to the Tujunga Spreading Grounds under a General Waste Discharge Requirement (WDR) permit issued by the LARWQCB. A total of 7,509 AF of groundwater was discharged to the spreading grounds during the operational test work. The permit was received from the California Department of Public Health (CDPH) and the treated groundwater began to be discharged into the distribution system in May 2010.

### Verdugo Park Water Treatment Plant

The City of Glendale Verdugo Park Water Treatment Plant (VPWTP) treats groundwater pumped from the Verdugo Basin for turbidity and bacteria, and is operating significantly below its expected rate of 700 gpm. Methods to increase the treatment rate are being investigated. The City is not able to attain the treatment capacity for its VPWTP due to the lack of production capacity from its two Verdugo wells that were constructed in 1990. A total of 507 AF was treated at the VPWTP in the 2009-10 Water Year.

### Glenwood Nitrate Removal Plant

CVWD's Glenwood Nitrate Removal Plant uses ion exchange to remove nitrate from groundwater. The facility treated 410 AF of groundwater during the 2009-10 Water Year.

### CVWD Over-Pumping in the Verdugo Basin during Water Year 2006-07

During Water Year 2006-07, CVWD pumped 12 AF above its entitlement without Glendale's consent or approval by the former Watermaster. CVWD had also extracted in excess of its right during Water Years 2004-05 and 2005-06, but with the permission of Glendale and the approval of the Watermaster. In December 2006, the over pumping in 2004-05 and 2005-06 was settled between CVWD and Glendale. In April 2011, CVWD

announced Board approval for compensating Glendale for the over pumping in the basin. The issue is expected to be resolved in 2011.

During the 2009-10 Water Year, CVWD under-pumped its annual right from the Verdugo Basin by 641 AF.

#### *Proposed Increase in Glendale's Pumping Capacity in the Verdugo Basin*

Glendale has never pumped its full water right of 3,856 AF/y from the Verdugo Basin. In recent years, Glendale has been actively trying to identify possible new well sites to increase its groundwater production capacity from the Verdugo Basin. Currently, a majority of Glendale's pumping is from its 8 GOU wells in SFB. However, 5 wells in the Verdugo Basin are shared with CVWD. In 2007, Glendale drilled two pilot boreholes in the basin and conducted isolated aquifer zone testing in each borehole. Due to the poor results of the zone tests (i.e., the low flow rates), one of the boreholes was permanently destroyed in March 2008. Glendale also drilled a third pilot hole in the Montrose area in February 2009. In October 2007, Glendale began the rehabilitation of the Foothill Well. Rehabilitation of the Foothill Well continued in 2010. Bidding and construction of a new well at the Rockhaven Sanitarium site began in 2010, with an expected completion of the new well in 2012. The Watermaster appreciates Glendale's effort in drilling and testing exploratory boreholes and in rehabilitating existing wells to increase its pumping from the Verdugo Basin.

#### *City of San Fernando Nitrate Removal*

Elevated nitrate concentrations are a problem in the wells operated by the City of San Fernando in Sylmar Basin. As of September 2010, two of its four wells were offline due to elevated nitrate concentrations. The City of San Fernando issued an RFP to help select a consultant to design a nitrate removal system and a transmission line. Current projections include placing the treatment system online in 2011.

#### *Mission Wellfield Rehabilitation*

LADWP has accrued 12,821 AF of Stored Water Credits in the Sylmar Basin as of October 1, 2010. In March 2006 the former Watermaster, Mark Mackowski, expressed concern over the accumulation of a large amount of Stored Water Credits in this basin, and recommended that LADWP begin pumping those credits.

In response to the Watermaster, LADWP expedited a project to construct a new water storage tank and three new municipal-supply wells at its Mission Wellfield in Sylmar Basin. The project also includes rehabilitation of the existing booster pump station. Once completed, this project should enable LADWP to pump its full annual entitlement and a portion of its stored water credits each year. Phase 1 construction of the water storage tank has been completed and the tank may be in service as early as March 2011 after the new control systems are in operation.

Phase 2, which includes construction of three new water-supply wells and rehabilitation of the existing booster pump station is currently in the planning phase. It is expected that construction for the new supply wells will begin in December 2011.

#### *Pacoima B-6, MWD Foothill Feeder Replenishment Project*

The new MWD Foothill Feeder connection enables the City of Burbank to import surplus water from the State Water Project into the San Fernando Basin for artificial recharge at the Pacoima Spreading Grounds. On April 26, 2010, the first delivery of MWD water occurred through the new Pacoima B-6 MWD connection, during which 33.6 AF of water were delivered for groundwater recharge in the Pacoima Spreading Grounds. This new source of water offers Burbank flexibility to purchase MWD water for spreading as opposed to purchasing physical solution water.

#### *Water Recycling Programs in the San Fernando Valley*

The LADWP's Recycled Water Master Plan is in the development phase and will identify potential projects city-wide where recycled water can be delivered to customers for their non-potable uses. The Groundwater Replenishment project in the SFB will provide recycled water for conjunctive use, and this project is also under development by this master plan, which is anticipated to be completed by early-2011. The Watermaster has been invited to and attended numerous workshops hosted by the LADWP for the Recycled Water Master Plan, providing input regarding possible local uses of recycled water and possible additional methods of recharging it into the SFB.

Construction of pipelines to supply Valley Presbyterian Hospital and Van Nuys High School with recycled water was completed in February 2010. In late-2010, LADWP began supplying recycled water to the Van Nuys High School for irrigation-supply purposes to meet an expected demand of 30 AF/y, while staff continues to work with

Valley Presbyterian Hospital personnel on their on-site conversion. Distribution facilities are also being designed to deliver approximately 500 AF/y of recycled water to the Hansen Dam Golf Course. It is expected that these facilities will be constructed and in service by October 2012.

By 2015, LADWP expects to deliver as much as 19,350 AF of recycled water annually within the City of Los Angeles, which includes an estimated 5,000 AF/y of delivery within the SFB. The water supply goals set forth by City of Los Angeles Supply Action Plan provide that by 2028 as much as 50,000 AF of recycled water will be delivered city-wide each year for non-potable reuse and conjunctive use.

Los Angeles has entered into agreements with the City of Burbank to provide groundwater storage credits in exchange for recycled water delivery from Burbank. These agreements include expanding Burbank's recycled water distribution system to service meters at three locations along the city boundary where Los Angeles will receive the recycled water for distribution to potential recycled water customers. It is estimated that Burbank may deliver up to 1,500 AF/y of recycled water to Los Angeles, if all proposed infrastructure improvements are completed.

#### Headworks Reservoir Project

The former Headworks Spreading Grounds is the site of a multi-objective project to improve water quality, provide the community with an opportunity for passive recreation, and restore a portion of the wetlands along the nearby portion of the Los Angeles River. As part of this project, LADWP approved the Final Environmental Impact Report which enables LADWP to comply with the Long Term 2 Enhanced Surface Water Treatment Rule and the Stage 2 Disinfectants and Disinfection Byproducts Rule (these regulations were recently promulgated by the USEPA).

LADWP's Silver Lake and Ivanhoe reservoirs (located within the Central Groundwater Basin) will be removed from service to its distribution system and the regulatory storage provided by these reservoirs will be replaced by buried reservoirs located at the former Headworks Spreading Grounds site; the new reservoirs are to have a storage capacity of 110-million gallons. The new underground facilities have been divided into two east and west reservoirs, and are currently in the design phase. The east reservoir is scheduled to begin operation by as early as November 2014.

The Headworks Reservoir Project includes a hydroelectric power plant that will generate approximately four megawatts of green power. LADWP is also working jointly with the United States Army Corps of Engineers to develop wetlands on a portion of the site.

#### *Projects to Enhance Recharge Capacity in the San Fernando Groundwater Basin*

LADWP along with the Los Angeles County Flood Control District (LACFCD) and the City of Los Angeles' Bureau of Sanitation (BOS) and Bureau of Engineering (BOE) are cooperating on several projects to enhance recharge of native water at existing spreading grounds along the eastern side of the SFB. These projects include: Big Tujunga Dam Seismic Retrofit Project; enlargement and modernization of the Hansen Spreading Grounds; the Tujunga Spreading Grounds Enhancement Project; the Pacoima Spreading Grounds Enhancement Project; the Sheldon-Arleta Project–Cesar Chavez Recreational Complex Project (Phase I); and other distributed recharge efforts to implement non-traditional flood control measures that provide the added benefit of stormwater capture and groundwater recharge. The following paragraphs provide additional discussion of each of the above-mentioned projects.

#### *Big Tujunga Dam Seismic Retrofit Project*

This project was developed to seismically retrofit the dam and increase its spillway capacity. In addition to preventing flood damage and impacts to public safety associated with a dam failure, the project provides for the conjunctive management of stormwater runoff at the dam and is expected to increase average stormwater capture by 4,500 AF/y, to a total of 10,000 AF/y.

LADWP and LACFCD entered into a cooperative agreement in September 2007, with LADWP providing \$9 million of funding towards construction of the \$100 million project. The project is under construction and scheduled to be completed by late-summer 2011.

#### *Hansen Spreading Grounds Enhancement Project*

The Hansen Spreading Grounds is a 156-acre parcel located adjacent to the Tujunga Wash Channel and just downstream from the Hansen Dam. Phase I, basin reconstruction to enlarge and deepen the spreading basins, was completed in November 2009. Phase II will retrofit and automate the existing intake structure on Tujunga Wash and is scheduled to begin construction in the summer of 2011. LADWP and LACFCD share equally in the \$15 million cost for constructing this project, and it is expected that

the project will increase average stormwater capture by 1,200 AF/y, to a total of 3,000 AF/y.

#### *Tujunga Spreading Grounds Enhancement Project*

The Tujunga Spreading Grounds, owned by LADWP and operated by LACFCD, is a 188-acre parcel located along Tujunga Wash Channel at its confluence with Pacoima Wash Channel. Plans are underway to enhance the facility by relocating and automating the current intake structure on Tujunga Wash, installing a second automated intake to receive flows from the Pacoima Wash, and reconfiguring the existing spreading basins. Other enhancements include construction and/or improving recreational walking trails, native habitat, and educational facilities on land not needed for the primary function of stormwater capture. These improvements will greatly increase stormwater capture and subsequent groundwater recharge while improving flood protection, water quality, and open space attributes.

Design of this project is scheduled to be completed by early-2011, whereas construction is to occur from 2012 through 2014. It is expected that this project will increase annual stormwater capture by 4,000 AF/y to a total of 8,000 AF/y.

#### *Pacoima Spreading Grounds Enhancement Project*

The 169-acre Pacoima Spreading Grounds, owned and operated by LACFCD, is located on both sides of the old Pacoima Wash Channel, downstream of the Pacoima Dam and Reservoir. LADWP and LACFCD are currently working cooperatively to improve stormwater capture by upgrading and automating the intake facility and revitalizing the recharge basins.

This project is expected to increase average annual stormwater capture by 1,500 AF/y, to a total of 3,000 AF/y. Final concepts and designs are scheduled to be completed by the end of 2012, and are to be followed by construction in 2013 through 2015.

#### *Sheldon-Arleta Project – Cesar Chavez Recreational Complex Project (Phase I)*

The Sheldon-Arleta Project is located at the Sheldon-Arleta Landfill adjacent to the Tujunga Spreading Grounds. During stormwater spreading operations at the Tujunga Spreading Grounds, the potential exists for the recharged water to displace the methane gas produced within the nearby landfill. In recent years, methane gas has migrated offsite and caused elevated levels at a nearby school. To avoid such occurrences,

limitations have been placed on the amount of stormwater that can be spread at the Tujunga Spreading Grounds. These limitations have reduced the capacity of the spreading grounds to approximately 20 percent of its original capacity.

To mitigate the displacement of methane gas, LADWP, BOS and BOE collaborated to replace the existing methane gas collection system at the Sheldon-Arleta Landfill with a new gas collection system. This system will enhance the containment of the methane gas within the landfill and restore the historic spreading flow capacity of 250 cubic feet per second, as well as bring some of the spreading basins closest to the landfill back into operation. Construction was substantially completed in 2009 and an evaluation to determine the maximum recharge capacity of the improved facility is currently underway. It is expected that the project will increase average annual stormwater capture by 3,000 AF/y, to a total of 5,000 AF/y.

#### LADWP's Distributed Recharge Efforts

Across the San Fernando Valley, urban stormwater runoff from impervious surfaces enters the storm drain system and eventually flows into the ocean. LADWP is exploring partnerships, projects, and programs that promote infiltration of rainfall runoff close to its point of origin. Several partnerships that LADWP continues to develop are with the City of Los Angeles Department of Public Works, the LACFCD, MWD, Tree People, and the Los Angeles and San Gabriel Rivers Watershed Council. Some of the projects and programs being developed include facility retrofits, neighborhood retrofits, and local recharge projects such as along medians, power line easements, and parkways.

#### Standard Urban Stormwater Mitigation Plan (SUSMP)

Resulting from the municipal stormwater National Pollution Discharge Elimination System Permit (NPDES Permit No. CAS004001) issued by the LARWQCB on December 13, 2001, the County of Los Angeles and 84 cities that are subject to the region-wide permit developed and adopted Standard Urban Stormwater Mitigation Plan (SUSMP) policies or ordinances within their respective jurisdictions to address stormwater.. Under SUSMP all new development and redevelopment projects in the private sector may be required to implement certain Best Management Practices and/or stormwater mitigation measures to contain or treat the first  $\frac{3}{4}$ - inch of rainfall runoff from every storm, and to implement on-site stormwater infiltration. The City of Los Angeles-Watershed Protection Division refers projects to the Watermaster that are undergoing a SUSMP evaluation within the City-portion of the San Fernando Basin. The Watermaster

reviews the SUSMP mitigation measures and provides his approval or denial of the infiltration portion of each SUSMP based on site specific conditions at each development or redevelopment site. The Watermaster encourages infiltration of collected stormwater whenever feasible, but is concerned about encouraging local recharge in areas having shallow groundwater and/or subsurface contamination.

### Integrated Resources Plan (IRP)

The IRP of the City of Los Angeles is a plan to integrate its wastewater, storm water, potable water, and reclaimed water programs for the next 20 years. The IRP uses a broader “watershed” approach to promote more efficient use of all water within Los Angeles.

Strategies adopted as a result of the IRP process include a facilities plan that identified immediate upgrades, capital improvements triggered by targeted changes in demographics, and a set of 25 policies covering the four areas of recycled water, conservation, dry-weather runoff, and wet-weather runoff.

Several of the approximately 25 to 30 “go” projects identified as immediate upgrades are being implemented in the field. Also identified in the adopted strategies is a study of the feasibility of using recycled water for groundwater replenishment. LADWP is the lead agency for this strategy component and has hired a consultant to produce a study as well as facilitate the involvement of public and private stakeholders.

### Dewaterers

Groundwater levels in portions of the SFB are near ground surface. As a result, permanent dewatering is common for certain types of building foundations or structures with deep underground parking and dewatering helps to artificially lower and maintain groundwater levels at depths that are several feet below the building foundations or subterranean parking structure. Wherever such dewatering is needed, the building owner (i.e., the “dewaterer”) is required to meter the extracted groundwater (i.e., the rates and volumes of discharge), report the extractions to the Watermaster, and enter into an agreement with the affected party for payment for this extraction. The Watermaster requires and receives groundwater production reports from several dewaterers in the SFB (see Table 2-5).

For one recent case in the SFB, dewatering was initiated on a temporary basis in April, 2009, during the construction of an underground parking garage for a new building along Ventura Blvd in Encino. Dewatering at this site was ceased in November, 2010, after the “battleship” design for the deep foundation and construction of the subterranean garage had been completed.

The Watermaster recently became aware of a second new structure along the same portion of Ventura Blvd in Encino. The property owners were made aware of the necessity of monitoring groundwater discharges from this new construction site. The Watermaster will follow-up with the owners of this property to determine the volume of groundwater dewatered from this site.

### Water Licenses

Portions of ULARA located in unincorporated Los Angeles County are without water service. Working in cooperation with the County Department of Public Health and the County Planning Department, prior Watermasters and LADWP have developed a process to identify and monitor water usage through a water license agreement (see Table 2-5). The agreements allow the use of groundwater on overlying property until a water service becomes available to the property owner. The agreements also establish maximum annual groundwater usage, and require the monthly reporting of groundwater production to the Watermaster and annual payment to the City of Los Angeles (the owner of the water rights in these unincorporated areas).

### Glendale Request for Stored Water Credit Adjustment

In August 2007, Glendale submitted a letter requesting a groundwater pumping adjustment of 3,053 AF in the SFB due to an over-reporting of groundwater extraction at the Grayson Power Plant. On November 13, 2007, the prior Watermaster and Glendale met to discuss the issue and concluded that further investigation was necessary. On April 8, 2008, Glendale submitted a letter of conclusion of findings to the Watermaster in regards to the groundwater pumping adjustment. Former Watermaster, Mr. Mark Mackowski, disagreed with the data analysis provided by Glendale and therefore denied the requested adjustment on June 26, 2008. Glendale submitted additional analysis and met with the current Watermaster on January 12, 2010 concerning reconsideration of the requested adjustment. The City of Glendale, based on that meeting, provided new, more detailed data and figures to the Watermaster in mid-February 2010 for his review. A

presentation by Glendale to the ULARA Administrative Committee (AC) was made at the April 21, 2010 meeting. The AC was asked to review Glendale's request. In addition, the Watermaster requested and subsequently received additional data from Glendale to help document its request. Upon review of this additional documentation, the credit was granted by the Watermaster, and is accounted for herein.

## **1.6 Summary of Water Operations in ULARA**

Highlights of all elements of water operations within ULARA for the 2008-09 and 2009-10 Water Years are summarized in Table 1-3. Details of the 2009-10 operations and hydrologic conditions are provided in Section 2. Locations of the groundwater basins, water service areas of the parties and individual producers, and other pertinent hydrologic facilities that measure precipitation, runoff, and water levels are shown on Plates 1 through 8.

### Average Rainfall

Average precipitation determined for all listed raingages (stations) on all valley floor areas during the 2009-10 Water Year in ULARA was 19.08 inches; this value represents 116 percent of the calculated 100-year mean (16.48 inches) for all of these stations. Average precipitation for all listed stations in the hill and mountain areas within ULARA in the 2009-10 Water Year was 21.48 inches; this value is 99 percent of the calculated 100-year mean (21.76 inches) for all of these stations. The weighted average of 20.55 inches of all precipitation throughout ULARA was 64 percent of the 100-year mean (19.64 inches).

### Spreading Operations

A total of 47,047 AF of water was spread in 2009-10. The average annual spreading of native water during the period 1968 through 2010 is 31,901 AF.

### Groundwater Extractions

Total groundwater extractions in 2009-10 in all four groundwater basins were 91,113 AF. Specific extractions were: 80,492 AF in San Fernando Basin; 5,687 AF in Sylmar Basin; 4,788 AF in Verdugo Basin; and 166 AF in Eagle Rock Basin. This current total represents an increase of 9,261 AF over the total extractions in 2008-09, but is less than the long-term (1968-2010) average of 100,834 AF. Of the total production for the 2009-10 Water Year, 1,249 AF of groundwater were pumped for non-consumptive use. The

Groundwater Extractions Report provided in Appendix A summarizes the groundwater extractions for the 2009-10 Water Year by all pumpers.

### Imports

Gross imports (including pass-through water) for 2009-10 totaled 469,010 AF; this represents a decrease of 47,824 AF from the 2008-09 total. Net imports used within ULARA in 2009-10 amounted to 258,787 AF (a decrease of 31,611 AF from the volume in 2008-09).

### Exports

A total of 267,400 AF was exported from ULARA. Of the total exports, 57,177 AF were from groundwater extractions, whereas the remaining 210,223 AF were from imported supplies (pass-through water).

### Treated Wastewater

A total of 84,821 AF of wastewater was treated in ULARA in 2009-10. The majority of the treated water, 52,378 AF, was discharged to the Los Angeles River. A portion of this treated water was exported from ULARA and delivered to the Hyperion Treatment Plant located in Playa Del Rey. The remaining 14 percent of this amount, approximately 12,242 AF, was used as recycled water as discussed below.

### Recycled Water

Total recycled water used in 2009-10 in ULARA was 12,242 AF. This represents an increase of 2,238 AF from the 2008-09 value. The recycled water is used for landscape irrigation, golf course irrigation, in-plant use, power plant use (i.e. cooling), and other industrial uses.

### Groundwater Storage

Groundwater storage in the SFB increased during Water Year 2009-10 by 17,856 AF, primarily due to an increase in the average rainfall and recharge during the year. Compared to the groundwater in storage in 2008-09, the estimated increases in groundwater storage for the Sylmar, Verdugo, and Eagle Rock basins were 373 AF, 1,528 AF, and 16 AF, respectively, for 2009-10.

### Water Wells

During the 2009-10 Water Year, the Rockhaven Well for the City of Glendale (in the Verdugo Basin) was the only new municipal-supply water well that was to be bid and constructed. Construction and final well testing will not be completed until 2012. No wells were destroyed during this same period in any of the four groundwater basins in ULARA.

**TABLE 1-3: SUMMARY OF OPERATIONS IN ULARA**

Item	Water Year 2008-09	Water Year 2009-10
Active Pumpers (parties and nonparties)	36	36
Inactive Pumpers (parties) <sup>1</sup>	7	7
Annual Weighted Average Rainfall, in inches		
Valley Floor	11.64	19.08
Mountain Area	13.18	21.48
Total ULARA	12.58	20.55
Spreading Operations, in acre-feet	9,940	47,047
Extractions, in acre-feet	81,852	91,113
Gross Imports, in acre-feet		
Los Angeles Aqueduct Water	104,676	241,734
MWD Water	412,158	227,276
<b>Total</b>	<b>516,834</b>	<b>469,010</b>
Exports, in acre-feet		
Los Angeles Aqueduct Water	45,690	109,220
MWD Water	180,746	101,003
Groundwater	50,534	57,177
<b>Total</b>	<b>276,970</b>	<b>267,400</b>
Net Groundwater Used in ULARA, in acre-feet	31,318	33,936
Net Imports Used in ULARA, in acre-feet	290,398	258,787
Recycled Water Used, in acre-feet	10,004	12,303
Total Water Used in ULARA, in acre-feet <sup>2</sup>	331,720	305,026
Treated Wastewater, in acre-feet <sup>3</sup>	84,408	84,821

1. The seven inactive pumpers are Van de Kamp, Disney, Angelica, Santiago Estates, Greeff, Sears, and Waste Management.

2. Extractions used in ULARA plus Net Imports and Recycled Water.

3. Most treated wastewater is discharged to the Los Angeles River, whereas a portion is delivered to the Hyperion Plant or to other locations utilizing recycled water.

## 1.7 Allowable Pumping for the Forthcoming 2010-11 Water Year

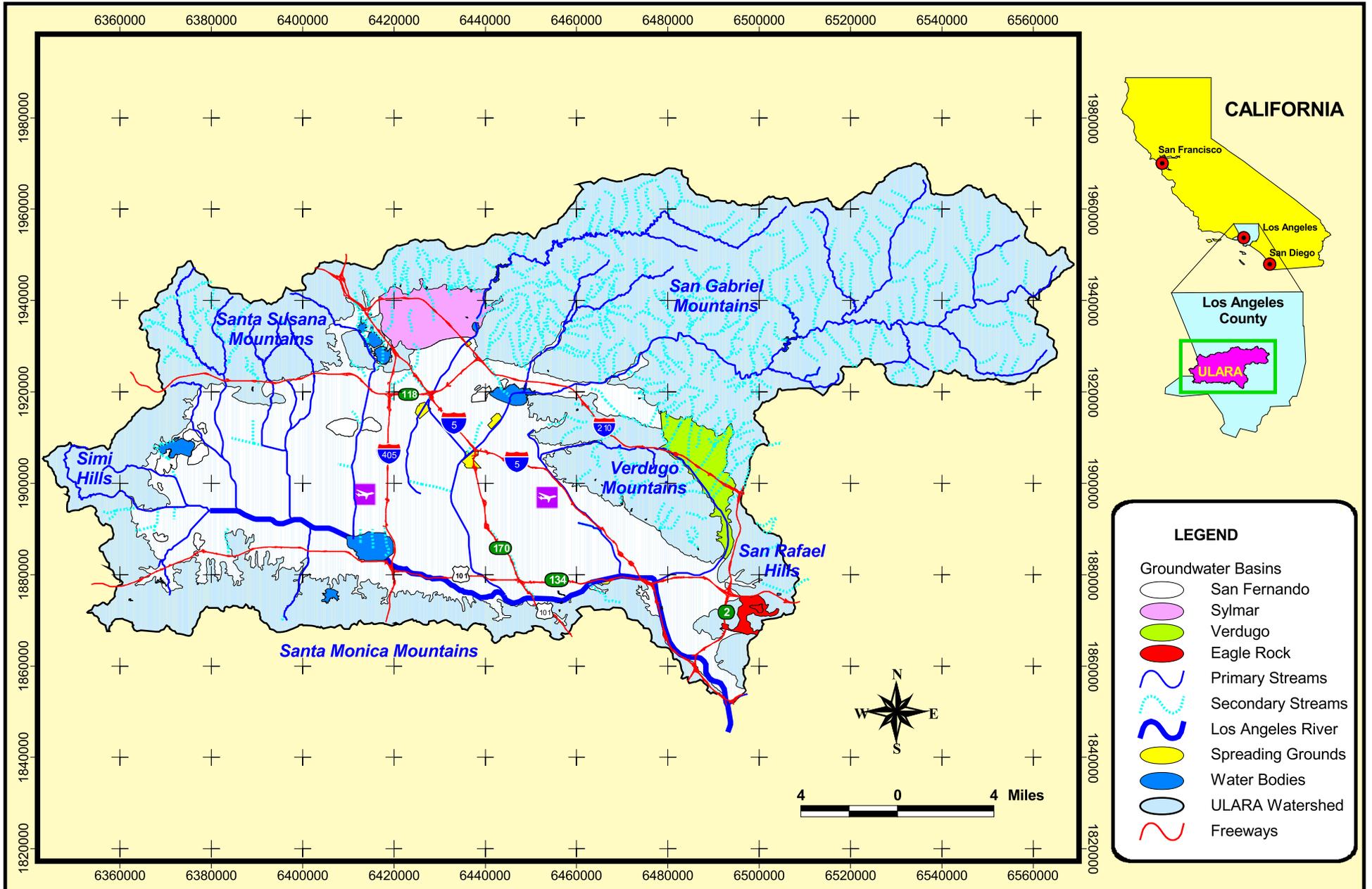
Table 1-4 provides a summary of the groundwater extraction rights in each of the three major groundwater basins in ULARA for the forthcoming 2010-11 Water Year and the Stored Water Credit (as of October 1, 2010), for the cities of Los Angeles, Burbank, Glendale, and San Fernando, and for the CVWD. The determination of these values is provided in more detail in Section 2.

**TABLE 1-4: ALLOWABLE GROUNDWATER EXTRACTION RIGHTS  
2010-11 WATER YEAR - ULARA**  
(acre-feet)

	Native Safe Yield Credit <sup>1</sup>	Import Return Credit <sup>2</sup>	Total Native + Import	Available Stored Water Credit <sup>3,4</sup> (as of Oct. 1, 2010)	Allowable Pumping 2010-11 Water Year
<b>San Fernando Basin</b>					
City of Burbank	---	4,103	4,103	3,662	7,765
City of Glendale	---	4,871	4,871	14,922	19,793
City of Los Angeles	43,660	36,362	80,022	126,464	206,486
<b>Total</b>	43,660	45,336	88,996	145,048	234,044
<b>Sylmar Basin</b>					
City of Los Angeles	3,405	---	3,405	12,821	16,226
City of San Fernando	3,405	---	3,405	1,177	4,582
<b>Total</b>	6,810	---	6,810	13,998	20,808
<b>Verdugo Basin</b>					
CVWD	3,294	---	3,294	---	3,294
City of Glendale	3,856	---	3,856	---	3,856
<b>Total</b>	7,150	---	7,150	---	7,150

- 1) Native Safe Yield extraction right per page 11 of the Judgment.
- 2) Import Return extraction right per page 17 of the Judgment.
- 3) There is no Stored Water Credit assigned in Verdugo Basin.
- 4) See Table 2-11A for calculation of SFB Totals and Stored Water Credits in reserve.

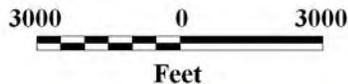
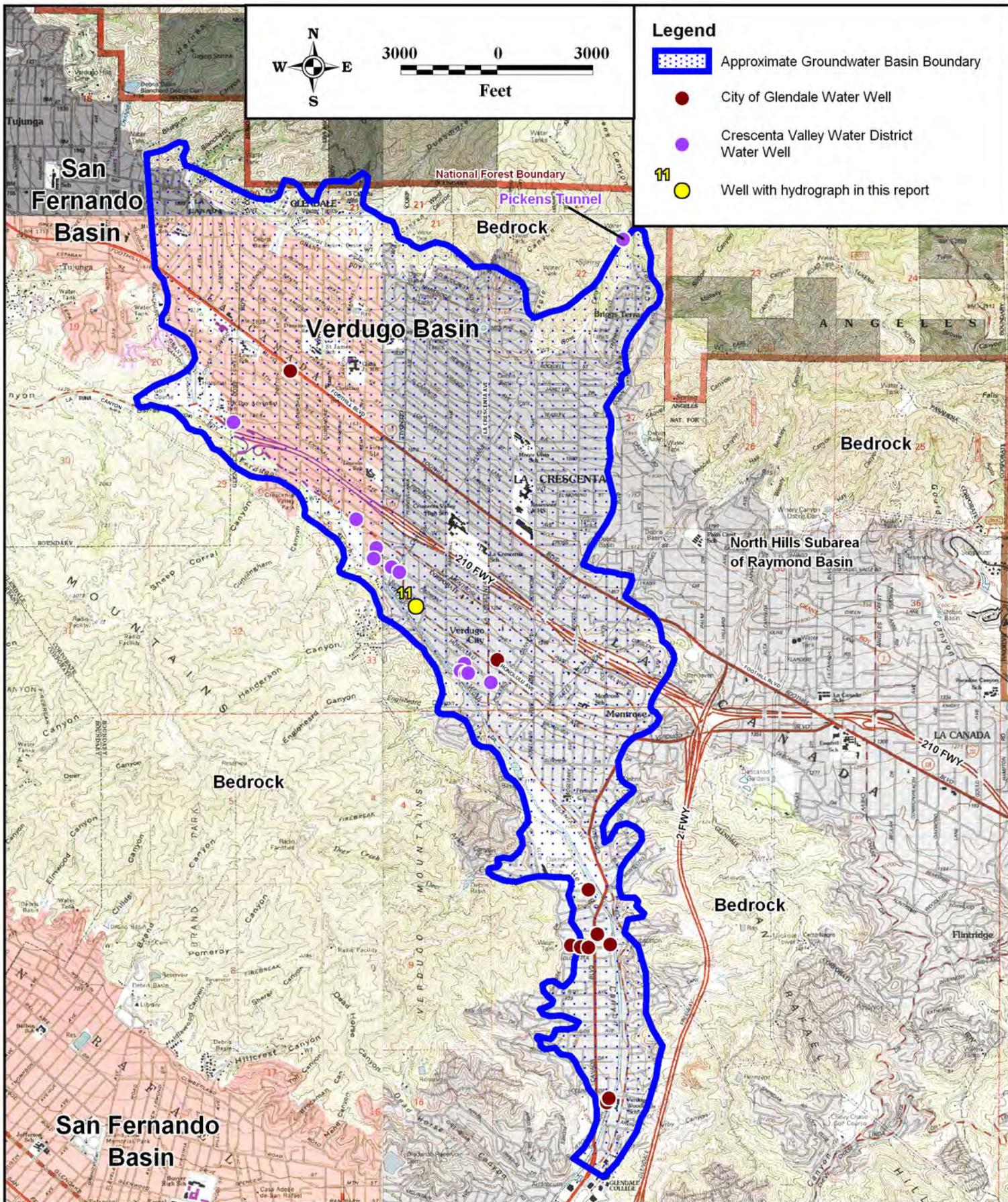
## PLATES



**2009-10 Water Year  
ULARA Watermaster  
Report**

**Upper Los Angeles River Area:  
Vicinity and Location Map**

**PLATE  
1**



**APPENDIX I**  
**ACTION ITEMS 2009-10 WATER YEAR**

## **ACTION ITEMS**

### **WATERMASTER ACTIVITIES FOR 2010-11 WATER YEAR**

1. Continue to work with the Parties to implement a meter calibration program to verify the accuracy of the flowmeter at each of their active pumping wells within ULARA. This program will include the replacement of meters that cannot be re-calibrated or properly repaired.
2. Continue to support ways to maximize the spreading of native water and increase the infiltration of urban runoff in the SFB.
3. Begin to work with the California Department of Public Health and other regulators to assess the feasibility of either the direct recharge or the spreading of recycled water into the ULARA groundwater basins, via the use of ASR wells and/or artificial spreading basins, respectively.
4. Begin the work needed for the four ULARA groundwater basins to be in conformance with the new DWR regulations regarding the California Groundwater Elevation Monitoring (CASGEM) program.
5. Continue to accumulate groundwater level data from various sources for the Sylmar Basin in order to quantify basin underflow and begin the re-calculation of the safe yield of this basin.
6. Continue to work with the City of Los Angeles Department of Water and Power--Watershed Protection Division and their Standard Urban Stormwater Mitigation Program (SUSMP) for the proposed development and/or the re-development of properties within the City portion of the San Fernando Valley.
7. Collect, organize, convert to electronic format, and correlate the driller's logs, geologic logs and electric logs for new water wells and groundwater monitoring wells in the ULARA groundwater basins.
8. Collect, organize, convert to electronic format, and correlate electric logs of wildcat and/or producing oil wells in the San Fernando and Sylmar groundwater basins.
9. Continue to work with the Parties and regulatory agencies, such as the USEPA and RWQCB, to enforce chromium cleanup in the SFB.
10. Continue to support the City of Burbank in its effort to purchase imported supplies from MWD for spreading and recharging in the SFB.
11. Continue to assess groundwater extractions by private pumpers in the hill and mountain areas within ULARA.
12. Continue to attend meetings of technical groups, such as the Association of Groundwater Agencies (AGWA) and the Groundwater Resources Association (GRA), to exchange ideas and information regarding water quality and groundwater basin management.

13. Conduct field visits to selected contamination sites and meet with regulators and site owners and/or their consultants to help accelerate the time schedules and effectiveness of cleanup activities at these sites.



## **Appendix C - Watermaster Service, ULARA Policies and Procedures**

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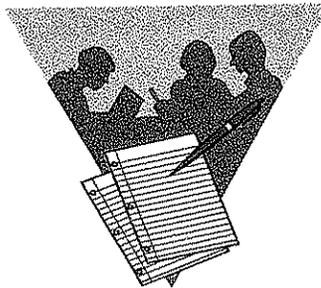


# WATERMASTER SERVICE



## UPPER LOS ANGELES RIVER AREA

### POLICIES AND PROCEDURES



**FEBRUARY 1998**

# UPPER LOS ANGELES RIVER AREA WATERMASTER

CITY OF LOS ANGELES VS. CITY OF SAN FERNANDO, ET AL  
CASE NO. 650079 -- COUNTY OF LOS ANGELES

## WATERMASTER SERVICE

UPPER LOS ANGELES RIVER AREA (ULARA)

### POLICIES AND PROCEDURES

February 10, 1998

#### ULARA WATERMASTER

Melvin L. Blevins, P.E.

#### ASSISTANT WATERMASTER

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# UPPER LOS ANGELES RIVER AREA WATERMASTER

CITY OF LOS ANGELES VS. CITY OF SAN FERNANDO, ET AL  
CASE NO. 650079 -- COUNTY OF LOS ANGELES

WATERMASTER SERVICE

UPPER LOS ANGELES RIVER AREA (ULARA)

## POLICIES AND PROCEDURES

February 10, 1998

### ULARA WATERMASTER

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These ULARA Watermaster Policies and Procedures setting forth provisions and intent of the ULARA Judgment (January 26, 1979 and March 21, 1984), have been reviewed and approved by the ULARA Watermaster and the Administrative Committee.

DATED: February 10, 1998

APPROVED:

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Fred Lantz, Assistant General Manager  
The City of Burbank

Vice-President

By Donald R. Froelich  
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## 1.0 INTRODUCTION

It is the purpose and function of the ULARA Watermaster's Policies and Procedures to set forth a summary of the decreed extraction rights within the Upper Los Angeles River Area (ULARA), and a clear picture of overall groundwater management, together with a detailed statement amplifying the rules for the ULARA Watermaster (Watermaster) and Administrative Committee's activities

The Watermaster Service, Upper Los Angeles River Area - Policies and Procedures (Policies and Procedures) consists of specific provisions for the Watermaster to administer the Judgment addressing the following:

- Summary of water rights as established in the Judgment and its amendments.
- Accounting procedures for groundwater extractions and storage.
- Management of groundwater quality.
- Establishment of the ULARA Administrative Committee.
- Reporting requirements and procedures.

Where provisions of these Policies and Procedures are derived from or interpretive of specific provisions of the Judgment, they are annotated by a reference to the applicable Judgment provision, i.e., (Section No. of the Judgment). The intent of the Watermaster's Policies and Procedures is to be consistent with the provisions and intent of the Judgment and the Stipulation and Order regarding the Sylmar Basin (Stipulation), dated 22, 1984. Refer to Appendix A for maps of the ULARA and Appendix C for the Judgment, January 26, 1979, Appendix D for the Stipulation, March 22, 1984. Appendix E contains "Guidelines for Groundwater Storage." Appendix F provides a status report on the safe yield of each of the four basins located within the ULARA and Appendix G provides background data and facts for each of the basins.

For brevity and simplicity, defined terms are used herein in the sense in which they are defined and used in the ULARA Judgment (Section 2.1 of the Judgment).

## **2.0 SUMMARY OF PUMPING AND GROUNDWATER STORAGE RIGHTS**

The rights to pump and store groundwater in the four basins within the San Fernando Valley (SFV) are separately summarized by basin for purposes of providing a clear description of those rights. For more detailed specifications and intent of the rights of the parties under the terms of the Judgment, reference is made to Sections 1 through 10 of the Judgment, which are attached hereto as Appendix C. Appendix C also includes, for ease of reference, the full table of contents of the Judgment.

### **2.1 SAN FERNANDO BASIN RIGHTS**

Although the waters in the San Fernando Basin (SFB) constitute a single physical body of groundwater, they are divided into four major categories (native waters, import return water, stored water, and physical solution water) for legal purposes. The rights of the parties to extract groundwater depend upon their rights and entitlements to each of the categories. The Watermaster records will account for the total allowable pumping and will also maintain records in the separate categories.

#### **2.1.1 NATIVE WATER RIGHTS**

Los Angeles has Pueblo rights to all native water which constitute a part of the surface flow of the Los Angeles River or groundwater within the SFB. No other party has any rights to such native waters. The Native Safe Yield is 43,660 acre-feet per year (AF/yr.) - (Sections 4.2.4 and 5.1.1.1 of the Judgment).

2.1.2 IMPORT RETURN WATER RIGHTS (Recharge of Delivered Water) - (Section 5.2.1 of the Judgment)

Los Angeles, Glendale and Burbank each has rights to extract from the SFB its import return (recharge of delivered water), i.e., the groundwater derived from percolation attributable to delivered imported water. The credit for such import return water shall be accrued and accounted for by the ULARA Watermaster, as follows:

2.1.2.1 Los Angeles

20.8 percent of all delivered water (including reclaimed water) to the valley fill lands of the SFB. (Section 5.2.1.3 of the Judgment)

2.1.2.2 Glendale

20.0 percent of all delivered water (including reclaimed water) to the SFB and its tributary hill and mountain areas (i.e., total delivered water [including reclaimed water], less 105 percent of total sales by Glendale in the Verdugo Basin and its tributary hills). (Section 5.2.1.3 of the Judgment)

2.1.2.3 Burbank

20.0 percent of all delivered water (including reclaimed water) to the SFB and its tributary hill and mountain areas. (Section 5.2.1.3 of the Judgment)

2.1.2.4 San Fernando

San Fernando no longer receives credit for import return water in the San Fernando Basin due to special credits provided in

the Sylmar Basin Stipulation of March 22, 1984. San Fernando receives up to one-half of the the Sylmar Basin's total safe yield. (6,510 AF/yr. - July 16, 1996)

2.1.2.5 Los Angeles, Glendale and Burbank - Carry Over Credit

The credit for groundwater and Import Return Water (recharge of all delivered water) not extracted in a given water year will be carried over, separately accounted for, and maintained as a cumulative credit, under the category of stored water, by the Watermaster for future extractions. (Section 5.2.1.4 of the Judgment)

2.1.3 STORED WATER RIGHTS

Los Angeles, Glendale, and Burbank, each, has the right to store water in the SFB by direct spreading of imported water and reclaimed water or in lieu practices, and each party has the right to extract equivalent amounts. All such storage shall be reported to the Watermaster. (Section 5.2.1.2 of the Judgment). Guidelines for the storage of water in the SFB are available in Appendix E.

2.1.4 PHYSICAL SOLUTION WATER RIGHTS

2.1.4.1 Los Angeles' Physical Solution Water

Under Section 9 of the Judgment, several parties other than Los Angeles are entitled to extract physical solution water chargeable to the rights of Los Angeles upon payment of specified

amounts of money to Los Angeles. Parties that are entitled to physical solution water rights can apply for such water from Los Angeles to be used after they have used their import return water credit. The parties and their maximum physical solution quantities are as follows:

Glendale

5,500 AF/yr. (Section 9.4 of the Judgment)

Burbank

4,200 AF/yr. (Section 9.4 of the Judgment)

Van de Kamp's

120 AF/yr. (Section 9.3.1 of the Judgment)

Toluca Lake

100 AF/yr. (Section 9.3.1 of the Judgment)

Sportsmen's Lodge, Inc.

25 AF/yr. (Section 9.3.1 of the Judgment)

2.1.4.2 Glendale's Physical Solution Water

Glendale may furnish physical solution water out of its share of Los Angeles' physical solution water to the following parties in accordance with the provisions in Section 9.3.1 of the Judgment:

Forest Lawn 400 AF/yr.

Environmentals, Inc. 75 AF/yr.

(Now Angelica Healthcare Services - formerly Southern Services Co.)

2.1.4.3 Burbank's Physical Solution Water

Burbank may furnish physical solution water out of its share of Los Angeles' physical solution water to the following parties in accordance with the provisions in Section 9.3.1 of the Judgment:

Valhalla	300 AF/yr.
Lockheed	25 AF/yr.

2.1.5 OTHER CATEGORIES OF WATER RIGHTS

2.1.5.1 Over-Extractions

2.1.5.1.1 Burbank and Glendale

a. Ten Percent Over-Extraction

In addition to current extractions of import return water, stored water, and physical solution rights, Burbank and Glendale may each in any water year extract from the SFB an amount not to exceed ten percent (10%) of its last annual credit for import return water. This over-extraction may occur without additional approval of the Watermaster. There is the obligation however to replace such over-extraction by reduced extractions during the next water year. Any such over-extraction, which if not replaced in the next water year will be deemed physical solution water extracted

in the subsequent water year (Section 5.2.1.5 of the Judgment).

b. Emergency Condition

In the event that the 10% over-extraction right is also exhausted and either Burbank or Glendale, or both of these parties is required to pump additional groundwater for cleanup purposes, each party may request to enter into an emergency condition provision. A written request for the impacted water year is to be submitted to the Watermaster for approval. This over-extraction under an emergency condition, if approved, is subject to payment to Los Angeles, the party whose water right is affected. The rate for this water will be subject to agreement with Los Angeles. The emergency condition provision provided in Section 9.4 of the Judgment follows:

In the event of emergency, and upon stipulation or motion and subsequent order of the Court, said quantities (Physical solution extractions) may be enlarged in any year.

This emergency condition need is satisfied by the Watermaster's approval, as stated above.

#### 2.1.5.1.2 Los Angeles

Whenever the needs of Los Angeles require the extraction of groundwater in excess of the native safe yield, plus any import return water credit and stored water credit, Los Angeles may extract from the Underlying Pueblo Waters, subject to an obligation to replace such excess as soon as practical (Section 6.8 of the Judgment).

### 2.1.6 OTHER GROUNDWATER PUMPING ACTIVITIES

#### 2.1.6.1 Pumping for Dewatering

##### 2.1.6.1.1 Within Los Angeles

###### a. Proposed Facilities

Within certain areas of the SFB in the City of Los Angeles (see Map - Appendix A - Water Service Areas), buildings or building modifications that are proposed may require dewatering facilities that can affect SFB storage and Los Angeles' water rights. Thus, the building permit applications for these proposed buildings or modifications that are submitted to the Los Angeles Department of Building and Safety (DBS) are to be referred to the Office of the Watermaster for review and approval with regard to dewatering plans. If the Watermaster determines that Los Angeles' water rights are affected by the dewatering, an agreement

must be established and approved by the Watermaster and the Los Angeles Department of Water and Power (DWP) with the party responsible for the dewatering activity before the issuance of a Certificate of Occupancy by the DBS.

b. Existing Facilities

For existing dewatering facilities within the SFB in Los Angeles that were not reviewed and approved by the Watermaster, the Watermaster has the authority to investigate the dewatering activity and to evaluate its impact on SFB storage and Los Angeles' water rights. The Watermaster is responsible for notifying the appropriate parties and establishing any agreements between such parties, the Watermaster, and Los Angeles.

In either case, if the dewatering party requests to discharge the groundwater to a storm drain or to use the groundwater in a consumptive manner, the dewatering party would be required to pay Los Angeles for the amount of water being discharged or used. Further, the dewatering party is also required to meter and report to the Watermaster the amount of groundwater being discharged or used on a monthly basis.

#### 2.1.6.1.2 Outside Los Angeles

For buildings or building modifications that are proposed within the SFB and not in the City of Los Angeles that may require dewatering facilities, procedures to provide Watermaster review and approval regarding proposed dewatering plans have not been established. Thus, the dewatering parties and the affected parties with water rights are to establish agreements, as required, that are subject to review and approval by the Watermaster. Again, the dewatering parties are required to meter and report the amount of groundwater being discharged or used on a monthly basis to the Watermaster.

#### 2.1.6.2 Provisions For Charging to Basin Account - SFB

##### 2.1.6.2.1 Temporary Losses

Any party or non-party may request that they be permitted to pump groundwater on a temporary basis, with the amount being charged to the Basin Account. Thus, they would be exempted from water right charges to any party. A written request must be submitted to the Watermaster stating the purpose and the estimated volume of the pumping. At the discretion of the Watermaster, a recommendation may be made

to the ULARA Administrative Committee that the temporary pumping be allowed and be charged to the Basin Account. The Watermaster will also recommend the conditions on the time, volume, manner, method of reporting, and similar circumstances of the pumping. The ULARA Administrative Committee, by unanimous vote, may then approve the request as recommended.

In determining whether to recommend that temporary pumping be charged to the Basin Account, the Watermaster shall consider the stated purpose of the pumping, which can include, but not be limited to, the following:

- Groundwater studies for aquifer characterization
- Plume definition
- Groundwater treatment facility testing and startup
- Temporary dewatering for construction purposes

The Watermaster shall also consider whether the temporary groundwater pumping is consistent with the purposes served by the Judgment and is for the benefit of the basin.

2.1.6.2.2 Operational Losses for Groundwater Treatment Facilities

It is recognized that treatment facilities established for groundwater cleanup may need to pump groundwater for special back-

washing and facility system development. In such cases, the pumping can be charged to the Basin Account under this section. The plant operator must meter and report all well production amounts and the reason for the operational losses of groundwater to the municipal water purveyor and the Watermaster. The municipal water purveyor shall then meter and report to the Watermaster the amount of treated groundwater actually received from the operator and the reported reason for the loss to be considered for assignment to the Basin Account. If the Watermaster agrees that the loss falls within the scope of the Basin Account, approval will be granted to charge the loss to the Basin Account. Any amount charged to the Basin Account will be exempted from being charged to any party's water rights.

The Watermaster will be responsible for accounting and reporting of pumping under this section.

## 2.2 SYLMAR BASIN RIGHTS

### 2.2.1 STIPULATION

On August 26, 1983, the ULARA Watermaster reported to the Court pursuant to Section 10.2 of the Judgment that the Sylmar Basin was in a condition of overdraft (see Appendix D). In response to the Watermaster's letter and a Minute Order of the California Superior Court, the Cities of Los Angeles and San Fernando responded by a letter

to the Court, agreeing with the Watermaster's finding on overdraft. On March 22, 1984, Judge Harry L. Hupp of the Superior Court signed the Stipulation, effective October 1, 1984, stipulating the following:

The Cities of Los Angeles and San Fernando shall be limited in their pumping to bring the total pumping within the safe yield of the basin, less any rights exercised by the private parties. Los Angeles and San Fernando were established to each have rights of 3,105 AF/Yr.

Based on the recommendation of the Watermaster and by unanimous vote of the Administrative Committee on July 16, 1996, Los Angeles' and San Fernando's pumping rights were each increased up to 3,255 AF/yr. This increase is subject to continued evaluation by the Watermaster with final approval by the ULARA Administrative Committee for a period up to 10 years with an opportunity for earlier review.

## 2.2.2 PRIVATE PARTY RIGHTS

### 2.2.2.1 Moordigian and Meurer Engineering

The Judgment recognized two parties with water rights. Moordigian no longer has water rights. No pumping has taken place since 1957 and the lands have been sold. Meurer Engineering (now Santiago Estates) was estimated to have pumped less than 0.5 AF/yr. since 1975-76, with no anticipated increase in the future. Even though

Santiago Estates' pumping has been less than one AF/yr., provision for their rights pursuant to Section 5.1.2.2 of the Judgment was established in the Stipulation. The pumping that occurs pursuant to the overlying rights of the Santiago Estates must be subtracted from the safe yield of the Sylmar Basin (which is presently 6,510 AF/yr.). Los Angeles and San Fernando are each entitled to one-half of the remainder.

2.2.2.2 Other Party Rights - No other party owns any right to extract native or import return waters from the Sylmar Basin.

#### 2.2.3 STORED WATER RIGHTS

Los Angeles and San Fernando each have the right to store water in the Sylmar Basin in accordance with procedures set forth in Section 2.1.3, and are subject to the same accounting procedures as are applicable in the SFB. These stored water rights were assigned to Los Angeles and San Fernando under the Stipulation, Paragraph 4.

#### 2.2.4 OVER-EXTRACTION

It is recognized that unusual circumstances, including weather conditions or water system operational problems, may result in water shortages. Los Angeles and San Fernando shall have the right to request the Watermaster for authority to over-extract from the Sylmar Basin an amount not to exceed ten per cent (10%) of their annual entitlement plus stored water credit. The request shall identify the unusual circumstances and shall justify the need for over-extractions. At the

discretion of the Watermaster each request for over-extraction shall be reviewed and shall be approved, modified, or denied. The over-extraction may be approved from year to year while the unusual circumstances continue, so long as the total amount of water extracted by either Los Angeles or San Fernando does not exceed 1,000 AF.

When the unusual circumstances cease, notification of the cessation and a plan for the replacement of the over-extracted amount must be submitted to the Watermaster. The Watermaster shall at his discretion approve the plan or order that it be resubmitted. The plan must provide at a minimum that all water over-extracted be replaced within six years by under-pumping, except that under-pumping will not be required to exceed ten percent of the annual allowed pumping of the party. (Refer to Stipulation, Paragraph 2).

## **2.3 VERDUGO BASIN RIGHTS**

### **2.3.1 GLENDALE AND THE CRESCENTA VALLEY WATER DISTRICT**

Glendale and Crescenta Valley Water District (Crescenta Valley) own appropriative and prescriptive rights in the Verdugo Basin to extract, with equal priority, the following quantities of groundwater: (Section 5.1.3.2 of Judgment).

Glendale	3,856 AF/yr.
Crescenta Valley	3,294 AF/yr.

#### 2.3.2 PRIVATE DEFENDANT RIGHTS

No private defendant, as such, is entitled to extract groundwater from Verdugo Basin.  
(Section 5.1.3.2 of the Judgment)

#### 2.3.3 STORAGE RIGHTS

Glendale and Crescenta Valley do not have a right to store water. The Verdugo Basin is too steep and shallow to implement storage activities.

#### 2.3.4 MODIFICATION OF ANNUAL PUMPING RIGHTS

With approval of the Watermaster, either Glendale or the Crescenta Valley may pump the unused portion of the other party's annual pumping allocation, so long as, the total amount pumped is within the total safe yield of 7,150 AF/Yr. The modification of the groundwater pumping shall be reviewed by the Watermaster annually.

### 2.4 EAGLE ROCK BASIN RIGHTS

#### 2.4.1 NATIVE WATER

The Eagle Rock Basin has no significant or measurable native safe yield and no parties have rights to native waters in this Basin. The Pueblo Right of Los Angeles does not extend to this basin.  
(Section 5.1.4 of the Judgment)

#### 2.4.2 IMPORT RETURN WATER

Los Angeles has caused imported water to be delivered for use on lands overlying Eagle Rock Basin. Return flow from such water constitutes the entire safe yield of Eagle Rock Basin. Los Angeles has the right to extract or cause to be extracted the entire safe yield of the Eagle Rock Basin. (Section 5.2.4 of the Judgment)

#### 2.4.3 PHYSICAL SOLUTION WATER

Foremost (now McKesson/Sparkletts) and Deep Rock (now Hinkle-Schmidt) have physical solution rights to extract Los Angeles' water from Eagle Rock Basin (Section 9.2.1 of the Judgment). These parties pay Los Angeles for all water extracted. Each party may extract up to 500 AF/Yr. pursuant to stipulations filed on November 1, 1965 to the Judgment. However, the estimated recharge from delivered water (safe-yield) is up to 300 AF/Yr. for the entire basin. It would not be possible for each party to pump 500 AF/Yr.

#### 2.4.4 STORAGE RIGHTS

Los Angeles and the Physical Solution parties have no storage rights in the Eagle Rock Basin.

### 3.0 WATERMASTER ACCOUNTING OF GROUNDWATER PUMPING AND STORAGE

The Watermaster is responsible for the accounting of each party's annual extraction right.

#### 3.1 BURBANK AND GLENDALE (SAN FERNANDO BASIN)

In the San Fernando Basin annual accounting for these parties will be performed in the following manner: Import Return water credit will be taken first, followed by all or a portion of either physical solution water or stored water credits. At the end of each water year, each party will notify the Watermaster, in writing, of their election as to whether water in excess of import return water credit will be debited from physical solution water or stored water credits, or a portion of both

Glendale (Verdugo Basin)

In the Verdugo Basin Glendale only will first take its annual allowable right. There is no storage right. With the approval of the Watermaster, Glendale or Crescenta Valley may pump the unused portion of the other party's annual pumping allocation, so long as, the total amount pumped is within the total safe yield of 7,150 AF/Yr.

Each party must file monthly, semi-annual, and annual reports as detailed in Section 7.0 of the Policies and Procedures.

**3.2 LOS ANGELES**

San Fernando Basin

In the San Fernando Basin native safe yield water will be taken first, followed by import return water credit, and finally, stored water credits. In the event all of these rights are exhausted, Los Angeles may initiate provisions under Section 6.8 of the Judgment.

Sylmar Basin

In the Sylmar Basin the amount allowed by the Stipulation annually will be taken first, followed by any stored water credits. In the event all of these rights are exhausted, Los Angeles may initiate provisions under the Stipulation.

Los Angeles must file monthly, semi-annual, and annual reports as detailed in Section 7.0 of the Policies and Procedures.

**3.3 SAN FERNANDO (SYLMAR BASIN)**

The amount allowed by the Stipulation annually will be taken first, followed by any stored water credits. In the event all of these rights are exhausted, San Fernando may initiate provisions under the Stipulation.

San Fernando must file monthly, semi-annual, and annual reports as detailed in Section 7.0 of the Policies and Procedures.

#### **3.4 CRESCENTA VALLEY WATER DISTRICT**

In the Verdugo Basin Crescenta Valley will first take its annual extraction right. There is no storage right. With the approval of the Watermaster, Glendale or Crescenta Valley may pump the unused portion of the other party's annual pumping allocation, so long as, the total amount pumped is within the total safe yield of 7,150 AF/Yr.

Each party must file monthly, semi-annual, and annual reports as detailed in Section 7.0 of the Policies and Procedures.

#### **3.5 OTHER PARTIES AND NON-PARTIES**

Other parties and non-parties pumping or discharging groundwater from the ULARA including dewaterers and those involved with groundwater cleanup programs must file monthly production reports and any associated water quality reports with the Watermaster. Refer to Appendix B-1, for a sample of a type of Monthly Production Form.

#### **3.6 METERING REQUIREMENTS**

##### **3.6.1 WATER-MEASURING DEVICES**

The amount of water pumped by each well or well field must be determined by a procedure acceptable to the Watermaster. All production wells must be equipped with a positive displacement, velocity impeller, Venturi or orifice-type meter with a totalizer. The totalizer should be susceptible to correction by, and only by, changing mechanical gear equipment.

### **3.6.2 METER TEST PROGRAM**

Each party is required to check the production from all water wells operated by or for such party. The metering device measuring well production shall be tested for accuracy at least once within each three to five - year period and the results filed with the Watermaster. Costs of such testing will be at each party's expense and may be performed by a party's own qualified personnel.

### **3.7 INSPECTION**

The Watermaster has the right to verify, upon prior request, the production and metering of any well or wells owned by any party or non-party, and shall have the right of reasonable field inspection for such purpose.

### **4.0 WATERMASTER AUTHORITY ON WATER RIGHTS**

If a field inspection or investigation by the Watermaster reveals that a party or non-party without water rights is extracting groundwater from the ULARA, the Watermaster has the authorization of the California Superior Court to enforce the provisions of the Judgment by taking one or more of the following actions:

- Advising the party or non-party of the provisions of the Judgment and the role of the Watermaster in administering the Judgment of the California Superior Court.
- Advising the party or non-party of their water rights, if any, in accordance with the Judgment and their responsibilities for metering and reporting.
- Notifying the applicable ULARA parties that are affected with regards to water rights.
- If appropriate, notifying the party or non-party without water rights to cease their groundwater

extractions from the ULARA and to destroy their wells that are used for pumping groundwater.

- If necessary, arranging for a hearing before the California Superior Court between the party or non-party and the Watermaster to resolve any ULARA water rights issues.

The party or non-party will also meet with the ULARA party that is affected with regard to water rights to discuss this matter.

#### **5.0 WATERMASTER MANAGEMENT OF GROUNDWATER QUALITY**

In addition to the Watermaster's responsibilities to administer the Judgment, manage water rights, ensure the basin objectives of a safe yield operation, the Watermaster is also responsible for managing the groundwater quality of the basin. This added responsibility of groundwater quality management is to ensure that the objectives of the California Regional Water Quality Control Board (RWQCB) are met with regard to their anti-degradation policy for groundwater.

Management of groundwater quality is an essential activity of the Watermaster due to the potential impact to each party's ability to utilize its water right.

Groundwater quality management of the basin consists of characterizing areas of groundwater contamination and its movement. The Watermaster coordinates with various agencies and parties to ensure that basin groundwater quality is protected and managed through activities that include, but are not limited to, the following:

- Investigation of sources of contamination.
- Periodic sampling and analysis of wells to monitor groundwater quality.

- Periodic measurement of groundwater elevations in wells to determine groundwater gradients and flow directions in the basin.
- Evaluation of groundwater gradients and flow directions to assess basin response to pumping and spreading activities.
- Reporting of current and projected pumping and spreading activities.
- Computer model simulations of projected pumping and spreading activities to assess the basin response to future operations.
- Review and evaluation of the effectiveness of the groundwater basin remediation projects to contain and remove contaminant plumes from the basin with a pump-and-treat technology.
- Review and evaluation of the effects of projects involving the spreading of reclaimed water to recharge the basin.
- Review and evaluation of proposed conjunctive use projects involving the spreading, storage, and future extraction of imported supplies.

#### **5.1 COORDINATED RESPONSE FOR GROUNDWATER CLEANUP AND CONTROL**

The Watermaster and the ULARA Administrative Committee (representing all parties within the ULARA) affirm their commitment to participate in a coordinated response to cleanup and control the spread of existing contamination of groundwater supplies within the SFB.

The ULARA Administrative Committee designates the Watermaster as the entity to coordinate party and non-party involvement in the effort to preserve and restore the quality of groundwater within ULARA. This anticipates that new or significantly increased extractions from existing SFB well fields to meet water supply demands may

include blending or treatment of groundwaters removed from areas of high-level degradation or contamination.

The Watermaster will also coordinate with other agencies for the following purposes:

- RWOCE  
To investigate sources or potential sources of groundwater contamination and to regulate surface water discharges including the spreading of reclaimed water to increase the water recharge to groundwater basins.
- California Department of Toxic Substance Control (DTSC)  
To investigate sources or potential sources of groundwater contamination.
- U. S. Environmental Protection Agency (EPA)  
To develop groundwater remediation projects and to conduct independent groundwater investigations.
- California Department of Health Services (DHS)  
To regulate groundwater production wells and treatment plants that produce a potable water supply for distribution by the water purveyor.

An important part of exercising these additional responsibilities and coordinating responses to contamination of the SFB water supplies is the collection, compilation and evaluation of essential data from producers within ULARA along with the distribution of such data to the proper state and federal agencies for review and comment.

## 5.2 **WELLS**

Each party or non-party shall provide to the Watermaster, for review and comment, plans and drawings for the following:

- Construction of any new well or well field.
- Deepening of any existing well.
- Modification of the perforations of the casing of any existing well.
- Plans for increasing or decreasing the effective extraction capacity of any existing well.
- Abandonment of any existing well.
- Data and other information that will enable the ULARA Watermaster to evaluate the potential impacts on groundwater pollution containment and cleanup.

These items will be reviewed by the Watermaster and evaluated as to whether significant adverse groundwater contaminant migration would be anticipated and to recommend alternatives as may be needed.

Factors and data included in the evaluation and modeling procedure may include the following:

- Groundwater quality data (i.e., historical and present).
- Water table elevations.
- Analysis of groundwater contaminant migration and flow patterns based on changes involving new wells, increased extraction, etc.

## 5.3 **OPERATING PRINCIPLES - SAN FERNANDO BASIN**

Any plans for new or significantly increased extraction by a producer in the SFB to meet water supply needs shall be submitted to the Watermaster for review and comment. The

proposed extraction activity will be evaluated to the extent feasible against good basin management objectives for maintaining and improving water quality, while operating the basin for water supply purposes.

The San Fernando Basin Groundwater Flow Model (Flow Model), developed as a part of the Remedial Investigation of Groundwater Contamination in the San Fernando Valley (RI), dated December 1992, will be utilized to evaluate that such new or increased extractions will not contribute significantly to the spread of groundwater contaminants. The evaluation will be completed using the Flow Model, which will be updated as new data and new modeling procedures become available. The accuracy of the Flow Model over time in predicting groundwater gradient patterns and the possible associated migration of contaminants will be discussed with the RWQCB and other interested agencies as needed, when requested.

#### 5.4 GROUNDWATER PUMPING AND SPREADING PLAN FOR THE UPPER LOS ANGELES RIVER AREA

To assess the basin response to pumping and spreading operations by all the parties with regard to contaminant migration, all parties and non-parties who pump groundwater are required to submit annual reports by May 1 to the Watermaster that include the following:

- A 5-year projection of annual groundwater pumping rates and volumes.
- A 5-year projection of annual spreading rates and volumes.
- The most recent water quality data for each well.

After receiving the aforementioned annual reports, the Watermaster will prepare the annual Groundwater Pumping

and Spreading Plan for the Upper Los Angeles River Area (Pumping and Spreading Plan) by July 1. The intent of this plan is for the Watermaster to look into the future and evaluate the impact from the projected pumping and spreading by all the ULARA parties as it relates to the implementation of the Judgment, and to make recommendations for inclusion into the Pumping and Spreading Plan. The ULARA Administrative Committee will review and approve the final report prior to its release. This annual Pumping and Spreading Plan will be made available to the RWQCB and other interested agencies.

The Pumping and Spreading Plan provides a yearly assessment of the basin response to the 5-year basin operation by all parties and non-parties with regard to changes in groundwater quality. The data and projections provided by the parties and non-parties are used as data input for the Flow Model to perform the simulations that are used to evaluate the basin response.

In reviewing the assessment, the Watermaster may include recommendations regarding projected operations in the Pumping and Spreading report and advise the applicable parties and non-parties of the recommendations.

The following information and data should be considered in developing the Watermaster's Pumping and Spreading Plan:

- Ownership, location and construction details for relevant wells, both active and inactive.
- Capacity of producing wells, 5-year projected pumping volumes, and a monitoring program.

- The name and location of each groundwater producer's wells operated during the previous water year (as reported in the Annual Watermaster Service in the Upper Los Angeles Area Report - filed on May 1 of each year in the California Superior Court).
- The quantity data for groundwater pumped from each well.
- If available, chemical analysis for all groundwater in wells tested during the previous water year, including data for volatile organic compounds (VOCs).
- Groundwater level data for wells monitored during the previous water year.
- An annual status report on production wells as to pumping during the previous water year.
- Significant changes in groundwater pumping during the previous water year, including resulting water level changes (as provided in the ULARA Watermaster's Annual Report).
- A summary of groundwater treatment plant operations and amounts of groundwater treated.
- Planned construction and a time schedule for new water supply and monitoring wells, if any.
- Planned modifications and a time schedule for modification or abandonment of existing wells, if any.
- Planned groundwater treatment facilities and construction time schedule.
- Maps showing locations of existing and proposed wells, treatment and water supply distribution systems.

## 5.5 GROUNDWATER TREATMENT FACILITIES

As permanent groundwater treatment facilities provide for increased pumping capacity in the ULARA, all pumping is to be conducted under the basin objectives of safe yield operation - to preserve a long-term balance of inflow and outflow and to preserve the groundwater storage credits of the parties. Thus, the Watermaster is required to account for all cleanup groundwater, the amount pumped, and its use or disposition. Groundwater consumptively used or discharged from ULARA by a party or non-party must be charged to a party's pumping right. Also, if the treated groundwater is returned to groundwater storage, the initial pumping of the groundwater would be considered non-consumptive, and not charged to a party's entitlement. However, in the event that this does not restore a party's pumping, returning groundwater to storage or discharging the groundwater to a storm drain is not consistent with the intent of the Judgment, and the Watermaster will not approve it.

### 5.5.1 TREATED GROUNDWATER DELIVERED FOR CONSUMPTIVE USE

If the treated groundwater is delivered for direct consumptive use, either on site or off site, the cleanup pumper must establish an agreement with the Watermaster and the party whose pumping rights may be affected to ensure that all potentially impacted parties are made whole. If the groundwater is used on site, the cleanup pumper would be required to financially compensate the party whose pumping right is affected. If the treated groundwater is used off site, an agreement would have to be established between the cleanup pumper and the water purveyor responsible for supplying water to that area.

#### 5.5.2 TREATED WATER DISCHARGED TO A STORM DRAIN

If the treated groundwater is discharged to a storm drain, it is presumed wasted from the ULARA as surface flow. Before such a method of disposal will be considered, the cleanup pumper would have to receive approval from the Watermaster and secure an agreement with the party with water rights within the ULARA in which the treated groundwater is delivered for consumptive use. Also, the approval of the Los Angeles Regional Water Quality Control Board would be required to discharge the treated groundwater to the storm drain.

#### 5.5.3 MONTHLY REPORTING OF METERED AMOUNTS

Consistent with Section 6.0 of these Policies and Procedures, each cleanup pumper is required to report monthly to the ULARA Watermaster the metered amounts of the following:

- Groundwater pumped.
- Treated groundwater returned to groundwater storage by re-injection.
- Treated groundwater discharged to the storm drains or elsewhere.
- Treated groundwater delivered for direct consumptive use.
- The amounts of water spread in spreading facilities.

#### 5.5.4 NOTIFICATION OF PROPOSED GROUNDWATER TREATMENT FACILITIES

During the initial stages of planning all parties and nonparties will notify the Watermaster of their intent to construct any facility to remove

volatile organic compounds (VOCs) or any other contaminant from groundwater produced from the SFV. This notice will include the following information:

- The intended location and a description of the facility (type of treatment).
- The capacity in gallons per minute.
- The expected concentration of all identified contaminants in the groundwater to be treated.
- The intended disposition of all water to be treated.
- The expected start-up date and potential period of time over which the treatment facility will operate.

All operators of treatment facilities for wells in the ULARA will report to the Watermaster, annually, the following information:

- Name (or other designation) of the treatment facility;
- Type of treatment;
- Quantity of groundwater treated during the year;
- Quality of groundwater before treatment, and after treatment, ie., influent quality and effluent quality, at the beginning and at the end of the reporting period and/or treatment process;
- Proposed disposal of treated groundwater;
- Quantities of contaminants removed from the groundwater during the year; and
- Record any correction or modification made to the extraction and treatment system.

## **6.0 ULARA WATERMASTER AND ADMINISTRATIVE COMMITTEE RULES**

### **6.1 FUNCTION AND PURPOSE OF ADMINISTRATIVE COMMITTEE**

An Administrative Committee composed of representatives from the five major parties has been formed to advise with, request, consent to, and review actions of the ULARA Watermaster. In performing said functions, the ULARA Administrative Committee shall be consulted by the ULARA Watermaster and shall approve all discretionary ULARA Watermaster determinations. In the event of disagreement between the ULARA Watermaster and the ULARA Administrative Committee, the matter shall be submitted to the Court for review and resolution.

### **6.2 MEMBERSHIP OF ADMINISTRATIVE COMMITTEE**

#### **6.2.1 MEMBERSHIP**

Members of the ULARA Administrative Committee shall be designated in writing and filed with the ULARA Watermaster by each party having a right to extract groundwater from the ULARA. The ULARA Watermaster shall maintain and periodically circulate a list of all ULARA Administrative Committee members, the party represented, and the appropriate names, addresses and telephone numbers of ULARA Participants for purposes of notice or other communication.

#### **6.2.2 ALTERNATES**

Any appointing party may designate an alternate to act on the ULARA Administrative Committee in the absence of the regular member.

### 6.2.3 TERM

Each member or alternate of the ULARA Administrative Committee shall serve at the will of the appointing party and may be removed or replaced by a written notice from such party to the ULARA Watermaster.

### 6.2.4 NONPARTICIPATION

Any eligible party may, by written advice to the ULARA Watermaster, elect not to participate in the ULARA Administrative Committee. While such election not to participate is in effect, such party shall not participate in any vote affecting the basin or basins in which it has a right. Such nonparticipation shall not prejudice or impair the rights of such party under the ULARA Judgment.

## 6.3 OFFICERS OF ADMINISTRATIVE COMMITTEE

### 6.3.1 OFFICERS AND DUTIES

The ULARA Administrative Committee shall elect at its annual April meeting, from its membership, a chairman and vice chairman. The ULARA Watermaster shall act as secretary. Said officers shall perform the duties usual to their office.

## 6.4 MEETINGS OF THE ADMINISTRATIVE COMMITTEE

### 6.4.1 ANNUAL MEETING

An Annual April Meeting of the ULARA Administrative Committee shall be held at the ULARA Watermaster's offices at 9:30 a.m. in April of each year or at such other convenient time as may be set by the ULARA Watermaster. At such meeting, the agenda

shall include election of officers and approval of the ULARA Watermaster Report.

#### 6.4.2 MONTHLY MEETINGS

Monthly meetings shall be held at the call of the ULARA Watermaster, at a time and place designated in the call. Fifteen days' notice by FAX or in writing shall be given of any such monthly meeting and shall contain a proposed agenda describing the monthly meeting. No ULARA Watermaster discretionary action shall be authorized or approved at such meeting except as to agenda items set forth in the notice of such meeting.

#### 6.4.3 WAIVER OF NOTICE

Notice of meeting may be waived in writing by each member entitled to act on matters considered thereat, and in such event, said meeting shall be valid as though duly noticed.

#### 6.4.4 VOTING AND ACTION

Each member of the ULARA Administrative Committee, or his alternate in event of his absence, shall have one vote. Action of the ULARA Administrative Committee shall be by unanimous vote of the members who represent the five major parties in the basin or basins affected by such action (Section 8.3.2 of the Judgment). The following parties shall be deemed affected by actions in the respective basins:

Los Angeles

San Fernando, Sylmar, and Eagle Rock Basins

Glendale

## San Fernando and Verdugo Basins

### Burbank

San Fernando Basin

### San Fernando

Sylmar Basin

### Crescenta Valley

Verdugo Basin

Santiago Estates (formerly Meurer Engineering)  
Sylmar Basin - Meurer Engineering notified the  
Watermaster that they would relinquish  
participation in the ULARA Administrative  
Committee, and thus their voting right.

#### **6.4.5 ACTION WITHOUT MEETING**

Any action which could be taken at a meeting of the  
ULARA Administrative Committee may be taken without  
a meeting if assent thereto in writing is executed  
by all parties entitled to vote on such matters and  
said assent is filed with the ULARA Watermaster.

#### **6.5 ULARA WATERMASTER RULES AND GUIDELINES**

The "Policies and Procedures of the ULARA Watermaster"  
serve as the rules and guidelines of the Watermaster in  
protecting the groundwater basins of ULARA.

#### **7.0 REPORTS TO THE ULARA WATERMASTER**

##### **7.1 MONTHLY REPORTS**

##### **7.1.1 FORM OF REPORTS**

The ULARA Watermaster will provide to each party and non-party producing groundwater, current Monthly Water Production Report forms (refer to sample of forms in Appendix B herein).

#### **7.1.2 SPECIFICATIONS IN REPORT**

Those receiving such Monthly Water Production Report shall list extractions, by individual wells, for the full calendar month. To the extent that any party and non-party shall have optional bases for extractions, such report shall designate the category of water to which the ULARA Watermaster is to charge or credit each such extraction. Such categories may include "import return water"; "native waters"; "physical solution water"; "stored water"; (in the case of Los Angeles) "underlying Pueblo water"; "dewatering pumping"; and "pumping for groundwater cleanup".

#### **7.1.3 CHANGE IN WELL STATUS**

Any changes in well status (water wells drilled, capped, destroyed, or wells having meter problems) shall be noted on said Monthly Water Production Reports.

#### **7.1.4 FILING AND COPIES**

Each party and non-party extracting groundwater shall file its Monthly Water Production Report with the ULARA Watermaster. Each private party and non-party extracting groundwater under the physical solution (including nonconsumptive water users in the SFB) and pumping for groundwater cleanup, shall file its Monthly Production Reports with the ULARA Watermaster, and furnish a copy of the report to the appropriate City (Los Angeles, Burbank or

Glendale) chargeable for such water use. All of the Monthly Reports shall be filed on or before the 15th of the month following.

#### **7.2 SEMIANNUAL REPORTS WATER LEVEL MEASUREMENTS**

Semiannual water level measurements of all wells shall be taken by each party, during the months April and October of each year, and shall be reported to the ULARA Watermaster in following June and December. Monthly and bi-monthly water level measurements should be made by parties and non-parties (as needed), dealing with groundwater cleanup in the San Fernando Basin. Other items may be added to these reports at the discretion of the ULARA Watermaster.

#### **7.3 ANNUAL REPORTS**

Each party shall file an Annual Report with the ULARA Watermaster on or before February 15 for the preceding Water Year. Said annual reports shall contain aggregate reports for such party by months, separately for each basin, showing:

- Delivered Water.
- Total Amount of Reclaimed Water Treated.
- Total Amount of Reclaimed Water Delivered for Use.
- Imported Water.
- Exported Water.
- Sewage Exported.
- Other items of Data (Inflow and outflow to the basins of ULARA).

#### **8.0. REPORTS BY THE ULARA WATERMASTER**

##### **8.1 MONTHLY REPORTS - ULARA WATERMASTER**

**8.1.1 ULARA WATERMASTER SHALL PROVIDE MONTHLY REPORTS TO PARTIES**

The ULARA Watermaster shall provide to each party having extraction rights, a Monthly ULARA Watermaster Report (refer to attached forms - Appendix B) showing the production for the previous month, and the cumulative production for the water year for each well, and an accounting for each water account (safe yield water, stored water, and physical solution water) showing the amount of pumping credit, debit, and the balance available for extraction.

**8.1.2 ULARA WATERMASTER SHALL PROVIDE MONTHLY REPORTS TO PRIVATE PARTIES AND NON-PARTIES**

The ULARA Watermaster shall provide to each private party and nonparty extracting groundwater under the physical solution, nonconsumptive water users, and groundwater pumpers dealing with groundwater contamination in the SFB a monthly report (Attached Form W/M-2) and furnish a copy of such reports to the appropriate City (Los Angeles, Burbank, or Glendale) held chargeable for such water use.

**8.2 ANNUAL REPORTS - ULARA Watermaster**

**8.2.1 ULARA WATERMASTER SHALL PROVIDE AN ANNUAL REPORT**

The ULARA Watermaster shall, on or about May 1 of each year, prepare and provide each party and the Los Angeles Superior Court with an Annual ULARA Watermaster Report for the preceding water year on hydrologic conditions and ULARA Watermaster activities. This report shall contain data and information on the following items:

Water Supply, Operations, and Hydrologic  
Conditions

- Precipitation.
- Runoff and Outflow from ULARA.
- Components of Surface Flow.
- Groundwater Recharge.
- Groundwater Extractions.
- Imports and Exports of Water.
- Water Reclamation.
- Water Level Elevations.
- Groundwater Storage.
- Water Supply and Disposal - Basin.
- Extraction Rights and Stored Water Credit  
- Basin Summaries.

Water Quality, Treatment, and Remedial  
Investigation Activities

- Water Quality.
- Groundwater Quality Management Plan.
- Underground Tanks, Sumps, and Pipelines.
- Private Sewage Disposal Systems (PSDS).
- Landfills.
- San Fernando Valley Remedial  
Investigation.
- (RI) and Related Activities.
- Water Treatment.
- Groundwater Quality Investigations.

Ownership and Location of New Wells

8.2.2 DRAFT ANNUAL REPORT TO ULARA ADMINISTRATIVE  
COMMITTEE

The ULARA Administrative Committee members shall receive draft copies on or about March 15 to assure review and approval of the Annual ULARA Watermaster Report prior to its release.

**8.2.3 DRAFT ANNUAL GROUNDWATER PUMPING AND SPREADING PLAN TO ULARA ADMINISTRATIVE COMMITTEE**

The ULARA Administrative Committee members shall receive draft copies on or about June 15 to assure review and approval of the Annual ULARA Groundwater Pumping and Spreading Plan prior to its release.

**8.2.4 DATA FOR INVOICE OF PHYSICAL SOLUTION AND GROUNDWATER CLEANUP WATER**

The ULARA Watermaster shall, at the end of each water year, prepare and forward data sufficient for invoicing all physical solution and groundwater cleanup water extracted.

**9.0 INFORMATION AVAILABLE RELATED TO PUMPING AND BASIN MANAGEMENT - SAN FERNANDO VALLEY**

As a part of each City's or agency's (Los Angeles, Glendale, Burbank, San Fernando and CVWD) water utility activities, three categories of information are available and will be made available to the LARWQCB and other interested agencies related to groundwater pumping and basin management, upon request. These categories include: basic data, review documents and additional items of information. A listing of the type of information included is as follows:

**9.1 BASIC DATA - SAN FERNANDO VALLEY**

- Water quality data.
- Groundwater Pumping - assigned water rights and physical solutions rights.
- Reclaimed water use and general operation data.
- Five-year proposed plans for pumping.
- Capital plans - production and treatment.
- Information on projected spreading projects.

## 9.2 REVIEW DOCUMENTS - SAN FERNANDO VALLEY

- All California Environmental Quality Act (CEQA) documents should be available to the ULARA Watermaster and the LARWQCB, and other interested agencies.
- Plans that parties and non-parties have for groundwater production regarding capital projects, included should be alternatives considered in addition to the recommended projects.
- Fact sheets regarding project costs and time schedules.
- Special studies made - aquifer tests and water quality evaluation.
- All other data and information provided to ULARA Watermaster.

## 9.3 ADDITIONAL ITEMS OF INFORMATION - SAN FERNANDO VALLEY

- ULARA Watermaster reports dealing with groundwater production and the impact on the various basins through evaluation and/or modeling. This would include anticipated water level and groundwater quality changes.
- All reports and documents related to the implementation of projects should be made available for review to the LARWQCB and other interested parties.
- Annual ULARA Watermaster Report (May 1 - each year).
- ULARA Watermaster meeting announcements and recorded minutes.
- Other special reports of the ULARA Watermaster and Parties related to pumping activities should be made available for review to the LARWQCB and other interested parties.