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REGIONAL WATER SUPPLY ASPECTS OF SAN GABRIEL BASIN SUPERFUND PROCESS

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UNCOVERING THE HIDDEN RESOURCE:
GROUNDWATER LAW, HYDROLOGY AND POLICY LAW
IN THE 1990s

Natural Resources Law Center
University of Colorado
School of Law
Boulder, Colorado

June 15-17, 1992

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I. Regional Water Supply Role

A. The Metropolitan Water District of Southern California (MWDSC) is the principal regional water supplier for augmenting local water supplies in the San Gabriel Valley area. It is a municipal corporation formed under California's Metropolitan Water District Act (Stats. 1969, ch. 209, as amended) to provide imported water supplies for a 6-county, 5,100 square mile region which includes most of the Southern California coastal plain. (Attachment 1.)

B. MWDSC obtains its water from the Colorado River (through the federal Boulder Canyon Project) and Northern California (through the State Water Project (SWP)). It provides about half of the area's water supply, with most of the remainder provided by local groundwater basins such as the San Gabriel Basin.

C. MWDSC consists of 27-member public agencies directed by a 51-member Board of Directors from those agencies which agencies include scores of cities and other communities containing half of California's people. Three of those agencies lie overlie San Gabriel Basin (Upper San Gabriel Valley MWD, Three Valleys MWD, City of San Marino), and five overlie downstream groundwater basins of the same (San Gabriel River) system (Cities of Compton, Long Beach, and Torrance; Central Basin MWD; and West Basin MWD). (Attachment 2.)

D. Serious developing restrictions on imported water supplies of MWDSC and the City of Los Angeles, one of its member agencies (Arizona v. California (1963) 373 U.S. 546

[reduction of Colorado River supplies]; state inability to complete SWP; pending State Water Resources Control Board San Francisco Bay Estuary proceedings on SWP instream flow requirements; National Audubon Society v. Superior Court (1983) 33 Cal.3d 419; California Trout v. State Water Resources Control Board (1989) 207 Cal.App.3d 585 (Reduction of Los Angeles' imported water supplies).

II. Regional Water Quantity/Quality Linkage

A. Resulting urgency for increasing protection of local groundwater basins from contamination, assisting member agencies in rehabilitating contaminated water, and optimizing use of groundwater basin storage and distribution capabilities.

B. MWDSC is accordingly enhancing its groundwater protection, recovery and storage programs with its member agencies through a variety of efforts, including funding assistance for local denitrification and other groundwater recovery projects, assistance in landfill regulation proceedings, and expanded groundwater storage studies.

III. San Gabriel Valley Illustration

A. The Main San Gabriel Basin is one of the largest basins in MWDSC's service area and is centrally located within the MWDSC distribution system. (Attachments 3 & 4.)

B. MWDSC has stored imported water in the basin for 17 years under storage agreements with the basin watermaster, for subsequent sale to an overlying MWDSC member agency (Upper San Gabriel Valley Municipal Water District) to offset local groundwater overpumping. MWDSC has recently entered into a

similar agreement for one other member agency overlying the basin (Three Valleys Municipal Water District).

C. The basin has an extensive groundwater management program established as a result of a comprehensive water rights adjudication several years ago (Upper San Gabriel Valley MWD v. City of Alhambra et al. (1973) Los Angeles Superior Court No. 924 128).

1. In addition to allocating water rights for the overdrafted basin and its related watershed, the adjudication imposed a physical solution to provide the most economic, long-term, conjunctive utilization of surface, groundwater, supplemental water, and groundwater storage capacity to meet the needs and requirements of the basin and its relevant watershed.

2. The court established a nine-person watermaster to administration the adjudication and the physical solution, and retained continuing jurisdiction. The court's continuing physical solution authority stems from article X, section 2 of the California Constitution (City of Los Angeles v. City of San Fernando et al. (1975) 14 Cal.3d 199, 287, 292; Niles Sand & Gravel Co. v. Alameda County Water District (1974) 37 Cal.App.3d 924, 935-937). That section prohibits waste or unreasonable use of water resources. (National Audubon Society v. Superior Court (1983) 33 Cal.3d 419, 443.)

D. MWDSC is nearing completion of a multi-year study with local agencies to develop a broader regional groundwater storage element to the existing storage program, so that

stored water could be recovered for surface distribution to areas outside of the basin, with safeguards to protect basin rights and meet basin needs.

E. Basin contamination from volatile organic chemicals, nitrates, and other materials has forced closure of many groundwater wells and is seriously threatening the groundwater supply as well as basin storage and distribution capabilities and downstream groundwater basins. The USEPA placed four broad areas of the basin on its superfund priority list in 1984.

F. The overlying communities have been very active in attempting to address the contamination problem.

1. After extensive meetings among the State Water Resources Control Board, other Cal EPA agencies, the watermaster, MWDSC, and others, local water agencies have established a joint-powers water quality authority (WQA) to develop and implement a basin cleanup plan in cooperation with USEPA and others.

2. Legislation (SB 1679) is pending in the California Legislature to define the WQA role more specifically, broaden its community base, and provide more flexible funding capabilities.

3. The court supervising the basin adjudication has modified the judgment's physical solution to require the watermaster to comply with basin cleanup plans developed by USEPA, Cal EPA, and local public agencies with groundwater cleanup responsibility.

G. USEPA is nearing completion of its CERCLA remedial investigation/feasibility study (RI/FS) for the central portion of the basin, and is evaluating a MWDSC regional storage program as one of the remedial action alternatives. The proposed RI/FS report is expected to be available for public comment this summer.

IV. Remaining Issues

A. Formal documentation of basin cleanup plan which the watermaster must utilize in managing the basin under the adjudication judgment.

B. Funding for the cleanup plan.

1. PRP participation.

2. Federal and state contributions.

3. Local water supplier, water user participation.

4. Integration of MWDSC water supply participation.

C. CERCLA cost recovery process.

1. Settlement/litigation potential for delaying or disrupting cleanup and water supply operations.

2. Liability exposure.

(a) Water supply operations (replenishment, storage, extraction).

(b) Cleanup facilities and operations.

D. Implementation of MWDSC regional water storage program.

1. Execution of groundwater storage/extraction agreement with watermaster and approval by court.

2. Compliance with state and federal environmental documentation requirements.

3. MWDSC Board approval.

4. Permit approval for disposal of extraction byproducts.

5. Groundwater treatment standards and operational reliability for meeting MWDSC water distribution system requirements.

6. Coordinated use of facilities for water supply and basin cleanup with appropriate operating agreements and cost allocations.

7. Indemnification for potential CERCLA liability exposure.

8. Identification and valuation of basin natural resources damages, particularly damages to aquifer storage, distribution and filtration capabilities, as a result of contamination caused by hazardous substance releases, as provided under CERCLA Section 107(f).

V. The Impact of Cleanup Efforts on MWDSC

A. The cleanup efforts impact MWDSC in several important respects, including:

1. Supporting efforts to preserve the areas' native annual drinking water supply of approximating 200,000 AF, enough to support most of the needs of the million people living in the San Gabriel Valley. Impairment of that supply puts increasing demands on MWDSC's imported water supplies which are already under severe stress;

2. Protecting MWDSC's existing storage of imported water for replacing basin extractions that exceed the basin's operating safe yield and its ability to exercise the full 167,000 AF of storage rights provided by its present cyclic storage contracts with the watermaster;

3. Assisting MWDSC efforts to encourage its member agencies to increase their use of groundwater storage to improve both local and regional water supply reliability;

4. Providing an opportunity for expanding MWDSC's present storage program and improving its

regional water service capability, by extracting, treating, and exporting contaminated water through its regional water distribution system, through a cost sharing arrangement with the cleanup effort.

5. Assisting efforts to protect San Gabriel River System groundwater flows from contaminating and thus reducing the native water supplies and groundwater storage capabilities of the downstream basins. Impairment of those supplies and their related groundwater storage capabilities would also increase demands on MWDSC imported water supplies.

B. The cleanup solutions most attractive to MWDSC are those which preserve and enhance the basin's native water production and imported water storage capabilities by removing and reusing the contaminated water in a manner that allows continued full production of native groundwater and continued storage of imported water during the cleanup process. Factors which MWDSC considers especially important include:

1. Preventing contamination of new aquifer areas, and expeditious reduction of, and eventual removal of, existing aquifer contamination.

2. Large scale extraction of contaminated water in a manner best designed to achieve item 1 in coordination with the watermaster's administration of the basin adjudication judgment.

3. Treatment of the extracted contaminated water to a level that meets California safe drinking water regulations and MWDSC water distribution system quality requirements, in a centralized

facility, using treatment technology and design developed on a staged basis.

4. Use of well-head treatment on a case-by-case basis to avoid inequities and dislocations without tangibly interfering with item 1.

5. Imposition of an in-lieu alternate water supply system to facilitate item 1, as administered by the watermaster under the adjudication judgment.

6. Coordination of local, regional, state and federal cleanup efforts by a local basin water quality authority agency.

C. MWDSC is attempting to focus its basin cleanup concerns and interests in a manner compatible with those of both USEPA and the local agencies. That effort includes dealing with:

1. The desire of local groundwater producers to defer capital investment and rely on well head treatment rather than a consolidated treatment facility.

2. EPA's limited involvement in water supply enhancement responsibilities.

3. Cost allocation, contamination responsibility, and liability protection issues.

VI. MWDSC's Goal

Development of a cooperative cleanup plan that will allow full water supply protection for the basin water users at reasonable cost, as well as significant regional water supply enhancement.

* * * * *

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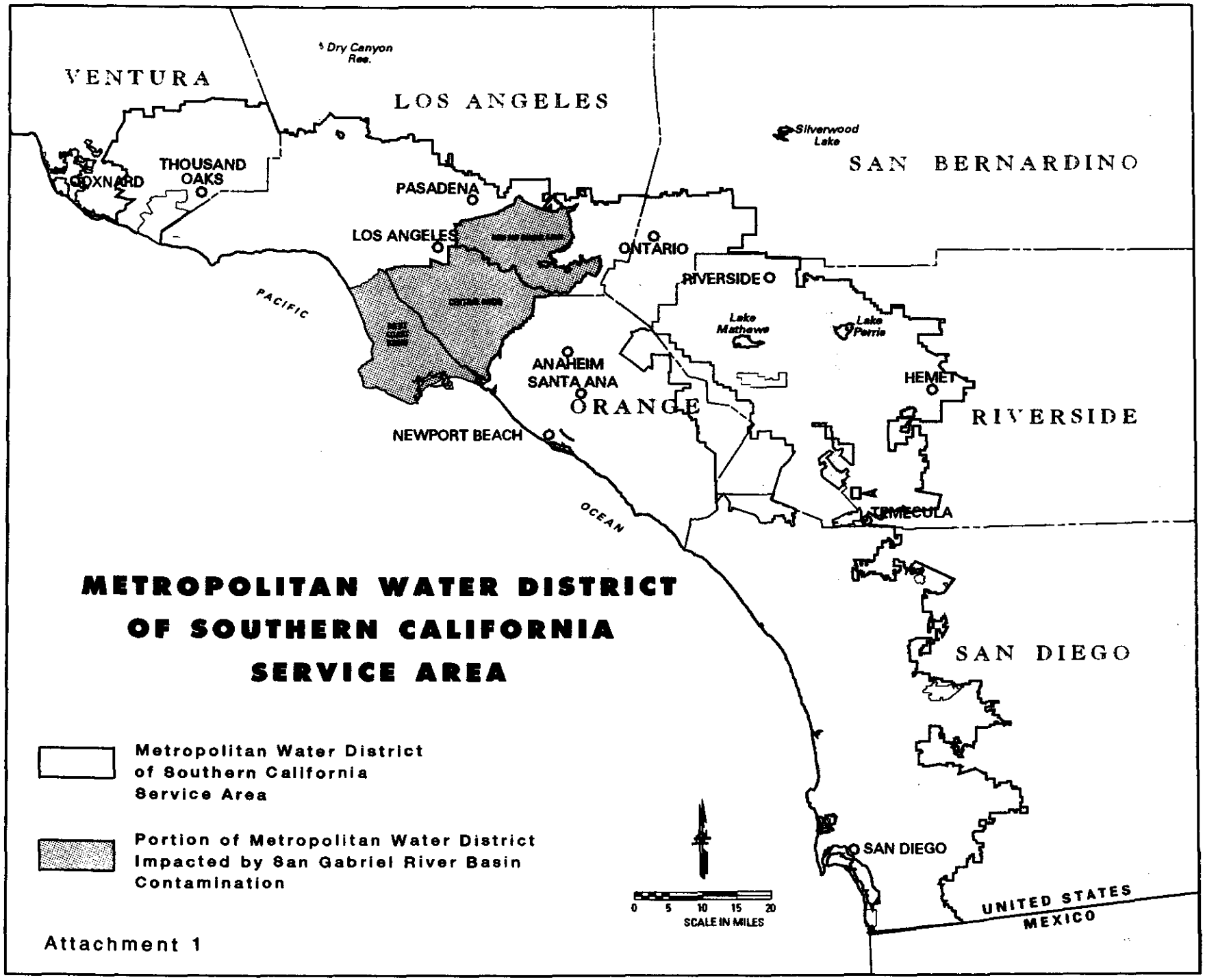

VENTURA
LOS ANGELES
SAN BERNARDINO
ORANGE
RIVERSIDE
SAN DIEGO
Dry Canyon Res.
Silverwood Lake
THOUSAND OAKS
OXNARD
PASADENA
LOS ANGELES
ONTARIO
RIVERSIDE
Lake Mathews
Lake Perris
ANAHEIM
SANTA ANA
HEMET
NEWPORT BEACH
TEMECULA
SAN DIEGO
PACIFIC
OCEAN
UNITED STATES
MEXICO
METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA
SERVICE AREA
Metropolitan Water District of Southern California Service Area
Portion of Metropolitan Water District Impacted by San Gabriel River Basin Contamination
0 5 10 15 20
SCALE IN MILES
Attachment 1

MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Member agencies and the communities they serve

Anaheim
Beverly Hills
Burbank
Compton
Fullerton
Glendale
Long Beach
Los Angeles
Pasadena
San Fernando
San marino
Santa Ana
Santa Monica
Torrance

Calleguas Municipal Water District
Camarillo
Camarillo Heights*
Fairview*
Las Posas Valley*
Moorpark
Oak Park*
Oxnard
Santa Rosa Valley*
Simi Valley
Thousand Oaks

Central Municipal Water District
Artesia
Bell
Bellflower
Bell Gardens
Cerritos
Commerce
Cudahy
Downey
East Compton*
East La Mirada*
East Los Angeles*
Florence*
Graham*
HawaiianGardens
Huntington Park
La Habra Heights
Lakewood
La Mirada
Los Nietos*
Lynwood
Maywood
Montebello
Norwalk
Paramount
Pico Rivera
Santa Fe Springs
Signal Hill
South Gate
South Whittier*
Vernon
Walnut Park*
West Compton*
West Whittier*
Whittier
Willowbrook*

Chino Basin Municipal Water District
Chino
Fontana
Montclair
Ontario
Rancho Cucamonga
Upland

Coastal Municipal Water District
Capistrano Beach*
Corona del Mar
Costa Mesa
Dana Point*
Laguna Beach
Newport Beach
San Clemente
South Laguna*

Eastern Municipal Water District
East Hemet*
Good Hope*
Hemet
Homeland*
Lakeview-Nuevo*
Mead-Valley*
Moreno Valley
Murrieta Hot Springs*
Perris
Quail Valley*
Romoland*
San Jacinto
Sun City*
Sunnymead*
Temecula
Valle Vista*
Winchester*

Foothill Municipal Water District
Altadena*
La Canada Flintridge
La Crescenta*
Montrose*

Las Virgenes Municipal Water District
Agoura Hills
Calabasas*
Chatsworth Lake Manor*
Hidden Hills
Malibu Lake*
Monte Nido*
Westlake Village

Municipal Water District of Orange County
Brea
Buena Park
Cypress
El Toro*
Fountain Valley
Garden Grove
Huntington Beach
Irvine
Laguna Hills*
Laguna Niguel*
La Habra
La Palma
Los Alamitos
Mission Viejo
Orange
Placentia
Rossmoor*
San Juan Capistrano
Seal Beach
Stanton
Tustin
Tustin Foothills*
Villa Park
Westminster
Yorba Linda

San Diego County Water Authority
Alpine*
Bonita*
Camp Pendleton*
Cardiff-by-the Sea*
Carlsbad
Casa De Oro*
Castle Park*
Chula Vista
Del Mar
El Cajon
Encinitas
Escondido
Fallbrook*
Lakeside*
La Mesa
Lemon Grove
Leucadia*
Mount Helix*
National City
Oceanside
Otay*
Poway
Rainbow*
Ramona*
Rancho Santa Fe*
San Diego
San Marcos
Santee
Solano Beach
Spring Valley*
Valley Center*
Vista

Three Valleys Municipal Water District
Charter Oak*
Claremont
Covina Knolls*
Diamond Bar
Glendora
Industry
La Verne
Pomona
Rowland Heights*
San Dimas
So. San Jose Hills*
Walnut

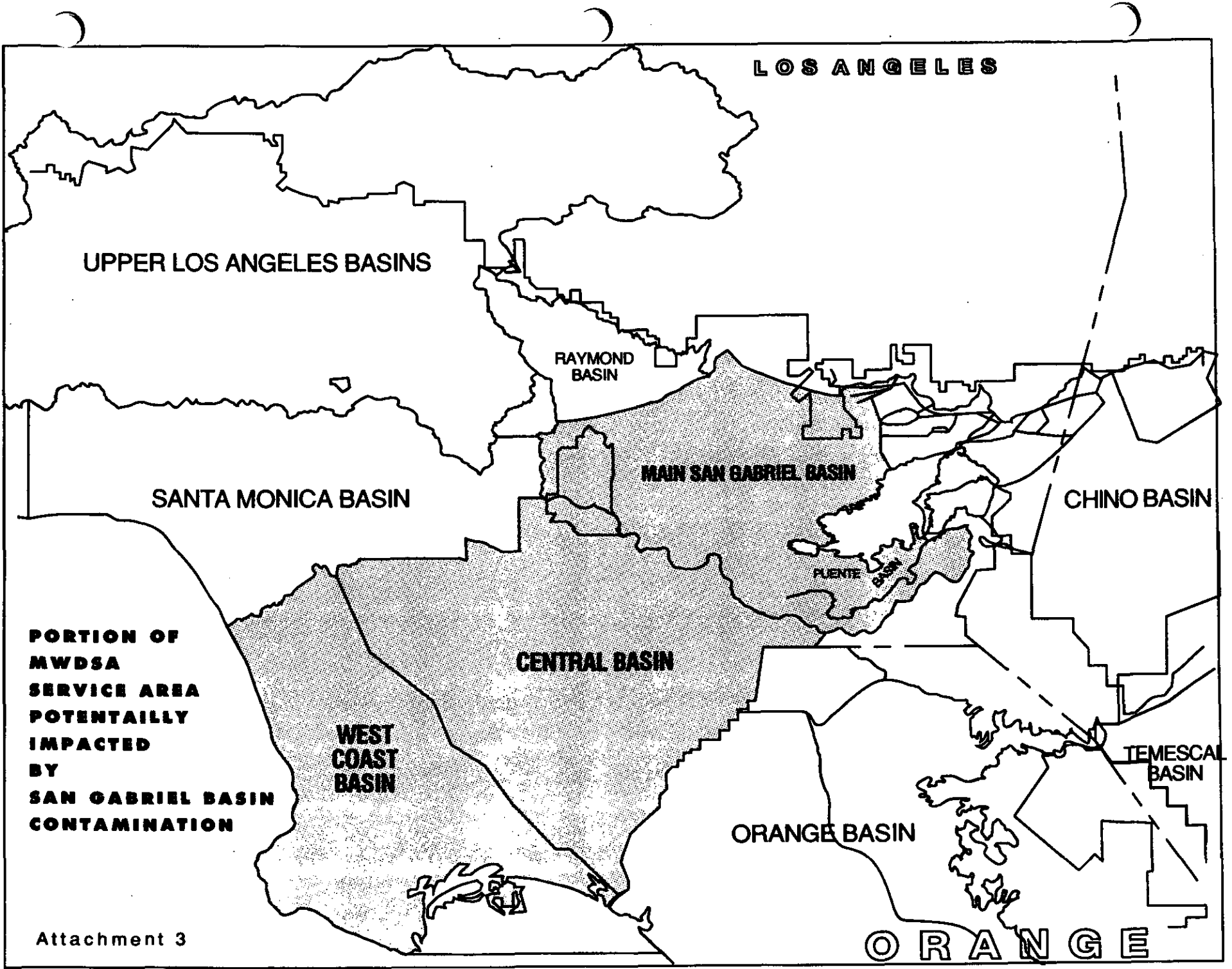
Upper San Gabriel Valley Municipal Water District
Arcadia
Avocado Heights*
Baldwin Park
Bradbury
Citrus*
Covina
Duarte
El Monte
Hacienda Heights*
Irwindale
La Puente
Mayflower Village*
Monrovia
Rosemead
San Gabriel
South El Monte
South Pasadena
South San Gabriel*
Temple City
Valinda*
West Covina
West Puente Valley*

West Basin Municipal Water District
Alondra Park*
Angeles Mesa*
Carson
Culver City
Del Aire*
El Nido-Clifton*
El Segundo
Gardena
Hawthorne
Hermosa Beach
Howard*
Inglewood
Ladera Heights*
Lawndale
Lennox*
Lomita
Malibu*
Manhattan Beach
Marina del Rey*
Palos Verdes Estates
Point Dume*
Rancho Palos Verdes
Redondo Beach
Rolling Hills
Rolling Hills Estates
Ross-Sexton*
Topanga Canyon*
Victor*
View Park*
West Athens*
West Carson*
West Hollywood
Westmont*
Windsor Hills*
National Military Home*
Wiseburn

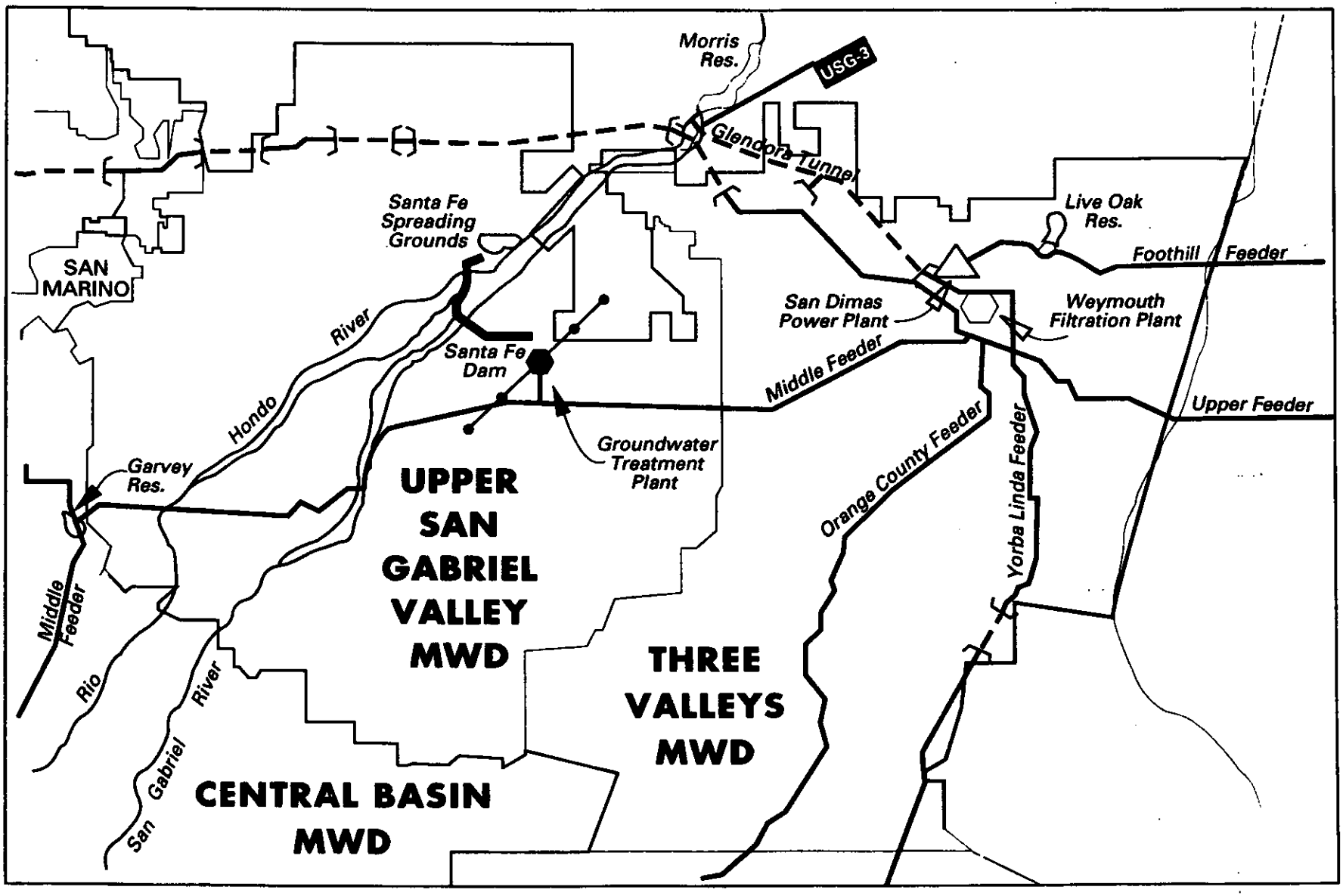
Western Municipal Water District of Riverside County
Bedford Heights*
Corona
Eagle Valley*
El Sobrante*
Green River*
Lake Elsinore
Norco
Riverside
Temescal
Woodcrest*
March A.F.B.*

Attachment 2

** Denotes Unincorporated Areas*



Attachment 3



Attachment 4