

**LOCAL AGENCY FORMATION COMMISSION  
COUNTY OF SAN BERNARDINO**

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**DATE: JULY 9, 2008**

**FROM: KATHLEEN ROLLINGS-McDONALD, Executive Officer  
MICHAEL TUERPE, LAFCO Analyst**

**TO: LOCAL AGENCY FORMATION COMMISSION**

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**SUBJECT: Agenda Item # 9: LAFCO 3033 – Service Review and Sphere of Influence Update for the Mojave Water Agency**

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**INITIATED BY:**

San Bernardino Local Agency Formation Commission

**RECOMMENDATION:**

Staff recommends that the Commission approve LAFCO 3033 by taking the following actions:

1. Certify that LAFCO 3033 is statutorily exempt from environmental review and direct the Clerk to file a Notice of Exemption within five (5) days.
2. Receive and file the municipal service review for the Mojave Water Agency and make the findings related to the service review required by Government Code 56430 as outlined in the staff report.
3. Affirm the existing sphere of influence for the Mojave Water Agency.
4. Amend the "Rules and Regulations Affecting Special Districts" under the Water function by expanding the service description to include Replenishment, Conservation, and Basin Management for the Mojave Water Agency. This section would read as follows:

<b>DISTRICT</b>	<b>FUNCTIONS</b>	<b>SERVICES</b>
<b>Mojave Water Agency</b>	Water	Acquisition, Wholesale, Retail, Replenishment, Conservation, Basin Management
	Sewer	Regional treatment, Wastewater

reclamation

5. Adopt LAFCO Resolution No. 3001 setting forth the Commission's findings and determinations.

**INTRODUCTION:**

LAFCO 3033 consists of a municipal service review pursuant to Government Code 56430 and sphere of influence (sphere) update pursuant to Government Code 56425 for the Mojave Water Agency (hereafter identified as "MWA" or "the Agency"). A map of MWA's current boundaries and its existing sphere is included as Attachment #1, Attachment #2 provides maps of related information such as Adjudication Boundary, Facilities, etc., and Attachment #3 provides MWA's response to the service review and sphere update along with additional information.

MWA is a special act water agency which means that specific legislation created the agency (Senator Stanford Shaw introduced SB1068, signed into law in 1959, to create the Mojave Water Agency and the Antelope Valley-East Kern Water Agency). MWA's enabling statute states that its purpose is to ensure that sufficient water may be available for any present or future beneficial use within its territory. MWA does not supply water directly to customers such as households or commercial uses; it is a water wholesaler and is one of 29 State Water Contractors with access to the State Water Project. In cooperation with other water entities, MWA is responsible for managing the water resources within its boundaries to ensure a sustainable supply of water for the benefit of its constituents. In addition, MWA is also the court-appointed Watermaster for the Mojave River Basin adjudication. The Agency is an independent district and is governed by a seven member board of directors.

**History of MWA**

The history of MWA is tied to the history of the Mojave River and the surrounding area, the North Desert region of the County, the Morongo Basin, and the State Water Project. This section of the report briefly describes the history of these subjects in relation to MWA from information gathered from the MWA website, materials submitted from MWA, LAFCO files, and MWA law, unless otherwise cited.

Due to the accessibility that the automobile provided, the Victor Valley experienced significant growth in the early 20<sup>th</sup> Century with investors purchasing land for development. Abundant agricultural use followed, such as alfalfa growers, farm crops and cattle grazing, which led to an overdraft <sup>1</sup> of the Mojave River Basin. To address the water challenges throughout the state, in 1957 the California Department of Water Resources issued the "California Water Plan". Specifically, the Plan acknowledged the lack of water in the Mojave Desert as being critical and "unless corrective action is taken and taken immediately ... the consequences may be disastrous." <sup>2</sup>

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<sup>1</sup> Overdraft is defined as "the condition of a groundwater basin in where the amount of water withdrawn exceeds the amount of water replenishing the basin over a period of time". Department of Water Resources, California Water Plan Update - Bulletin 160-98, pg. G-3 (November 1998).

<sup>2</sup> Department of Water Resources, 1957 California Water Plan, cited in [www.mojavewater.org](http://www.mojavewater.org).

In order to provide for a system of supplemental water delivery to Southern California, in 1959 the *Burns-Porter Act* passed the State Legislature, authorizing construction of the State Water Project (formerly known as the Feather River Project). In November 1960, the voters approved the project and the bond to finance the State Water Project. During the same time as the passage of the State Water Project, MWA was formed by an act of the California Legislature in 1959 (Water Code Appendix, Chapter 97 – also known as Mojave Water Agency Law) and approved by the voters in June 1960 for the primary purpose of managing the depletion of the groundwater in the area. As of the formation date, the property owners within MWA were obligated to pay for their share of the construction costs for the California Aqueduct.

LAFCO's involvement with MWA has been limited over the years. Staff, therefore, is providing a chronology of significant events in its history:

1. First Adjudication Attempt of the Mojave River Basin:

The first attempt at adjudication<sup>3</sup> was prompted by MWA in 1964 due to the overdraft of the Basin and the high cost of imported water from the State Water Project that was anticipated for delivery in 1972. The goal of the adjudication was to develop a water delivery allocation system for the basin and this required the determination of water rights.

The Water Recordation Act of 1955 provided the mechanism to determine water rights by requiring water purveyors to report the amount of water they pumped. Further, all water extractions had to be reported annually to the State Water Rights Board. However, this mechanism did not provide for accurate readings, it only provided an estimate of what was pumped. Because of the lack of accurate data, adjudication proceedings were initiated but never finalized.

2. Moronggo Basin Annexation

LAFCO reviewed and approved the annexation of portions of the Moronggo Basin in 1965 to MWA (LAFCO 161 and 212). Due to opposition from the Moronggo Valley Community Services District and Twentynine Palms Water District, the areas of these agencies were excluded from the annexation proceedings. These annexations expanded MWA's service area by approximately 610 square miles to approximately 4,872 square miles. As a result of the annexations, the Moronggo Basin was entitled to receive State Project Water from the MWA's "Annual Table A Amount". What ensued was a long effort to build a pipeline to deliver water from the State Water Project to the Moronggo Basin.

3. Annexation of Cedar Springs

In 1968, LAFCO approved the annexation of five square miles in Cedar Springs (near Lake Silverwood) to MWA (LAFCO 636). The reason for the annexation was the anticipation that

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<sup>3</sup> Adjudication is defined in the 2005 California Water Plan as the "Act of judging or deciding by law. In the context of an adjudicated groundwater basin, landowners or other parties have turned to the courts to settle disputes over how much groundwater can be extracted by each party to the decision." Department of Water Resources, California Water Plan Update 2005, Vol 4, Glossary (2005).

there would be recreational and residential growth in the vicinity of Silverwood Lake, and supplemental water would be needed to support the anticipated development. Further, a water rights determination being negotiated at that time between Las Flores Ranch and other water users within MWA territory would be simplified by the annexation. Annexation gave the area the right to purchase State Water Project water but did not provide an allocation of the MWA entitlement water.

4. LAFCO Establishment of Sphere of Influence

The sphere for MWA was established in 1973 in conjunction with the establishment of the spheres of influence for the Crestline-Lake Arrowhead Water Agency (CLAWA), San Bernardino Valley Municipal Water District, and Chino Basin Municipal Water District (now known as Inland Empire Utilities Agency). At that time, LAFCO staff requested that the agencies meet to determine their general areas of service and propose sphere boundaries. These agencies, including MWA, agreed to the proposed sphere boundaries based on hydrological divides, and the Commission established the spheres for these agencies as shown State Water Contractor map on page 8 in this report and a part of Attachment #2. At that time, representatives from the communities of Morongo Valley, Trona, and Baker voiced opposition to the possibility of inclusion in MWA's sphere. The Commission considered their opposition and excluded these areas from the sphere establishment.

5. Regional Wastewater Treatment for the Victor Valley

To meet the requirements of the federal Clean Water Act and provide wastewater treatment for the growing population, the communities of the Victor Valley requested that MWA (being a regional entity) help shepherd the development of a regional wastewater treatment facility. MWA accepted the request and obtained grant funding and became the responsible entity for the design of the wastewater treatment plant. The communities of the Victor Valley also developed a joint powers authority, which became known as the Victor Valley Wastewater Reclamation Authority (VWVRA). The VWVRA was expressly created for the purpose of providing the operation and management of the treatment of wastewater through a regional facility and the ultimate disposal of effluent and solids. In 1977, the VWVRA assumed the assets and authority for the plant and MWA divested itself from the project and the provision of sewer service.

6. LAFCO Special Study and Legislative Changes to Enabling Statute

In 1977, growing concern from water entities, residents, LAFCO, and the State Legislature about the effectiveness of MWA led to a LAFCO special study and legislative action. The minutes from the LAFCO Hearings regarding the special study are included as Attachment #4. The goal of the LAFCO special study was to provide a recommendation that would enable MWA to perform its mission more effectively.<sup>4</sup> LAFCO conducted seven hearings on this subject over four months in 1977. The overall concern was that MWA had been in existence for 18 years and the communities were starting to run out of water even though Mojave Water Agency Law enacted MWA "to do any and every act necessary to be done so

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<sup>4</sup> Local Agency Formation Commission, Hearing minutes, April 13, 1977.

that sufficient water may be available for any present or future beneficial use of the lands and inhabitants of the Agency". Also of issue was the possibility of changes in the Agency's structure that would make it possible for the Agency to function more efficiently. Such possibilities included reorganization of the board of directors (at the time the board was comprised of 11 members elected at-large) and a reduction in the Agency's statutory powers.

During the same time as the LAFCO study, legislation was introduced in the State Legislature with the goal of making the board more responsive. At the June 22, 1977 LAFCO hearing, the Commission unanimously voted to support Assembly Bill 231 (Chimbole) to reorganize MWA from 11 members to 7 members, each representing a division of the Agency. The legislation passed in 1977 (Stats. 1977, c.639, p. 2134) explains the basis for the reorganization of the board:

Sec 3. The legislature hereby finds and declares that the composition of the Board of Directors of the Mojave Water Agency is both nonresponsive to the will of the people of the agency and fails to comport to the principles of equal protection of the law upon the equality and fairness of the election process in the agency as enunciated by the California supreme Court in Choudhry v. Free, 17 Cal.3d 660. The Legislature further finds that under the present composition of such board, the agency has failed to carry out the purposes for which the agency was established, and thereby the composition of the board must be reconstituted.

#### 7. Adjudication of the Warren Valley Basin

The Warren Valley basin also experiences overdraft conditions and has been adjudicated since 1977.<sup>5</sup> The Hi-Desert Water District is the court-appointed Watermaster for the Warren Valley Basin and this area is within the service area of MWA. The Judgment requires that State Water Project water be imported through MWA to offset the overdraft.

#### 8. Second Adjudication Proceeding for the Mojave River Basin

A second effort at adjudicating the Mojave River Basin was initiated by the City of Barstow in 1990 through court action.<sup>6</sup> The City of Barstow is not a water retailer and is served water from the Golden State Water Company (formerly Southern California Water Company). The basis for Barstow's complaint was that a large development project approved by the City of Hesperia would adversely affect the downstream water that Barstow receives. Further, the complaint requested guaranteed water from those users upstream. MWA in 1991 filed a cross-complaint to have all the major water suppliers in the Mojave River Basin included in the adjudication. Joining MWA in supporting a groundwater allocation system were agricultural, industrial, and municipal water users in the basin. The adjudication was appealed and the California Supreme Court upheld the decision but stipulated that the adjudication did not fully apply to the Cardozo Group (an agricultural entity). In 2002 a settlement agreement was reached with the Cardozo Group, which allowed for full implementation of the adjudication.

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<sup>5</sup> Hi-Desert v. Yucca Water Company Ltd., Case Number 172103, San Bernardino, California, September 16, 1977.

<sup>6</sup> City of Barstow et al. v. City of Adelanto et. al. Superior Court Case No. 208568, Riverside County, CA (1990).

The physical solution to the adjudication established a production right based on historical pumping before the case filing, reduced the established right by 20% over five years with additional reductions if necessary, and allows MWA to establish a replenishment assessment for excess pumping. The assessments are used to purchase State Water Project water to replenish the groundwater basin.<sup>7</sup> The adjudication applies to water users that pumped 10-acre feet or more per year between 1986-90. Currently, it applies to approximately 470 water users in the Mojave River Basin. A map of the Mojave River Basin adjudication area is on page 9 and is included as a part of Attachment #2.

#### 9. Improvement District M and Morongo Pipeline

In June 1990, voters within the Morongo Basin portion of MWA approved a bond measure to fund a pipeline to deliver water to Yucca Valley for replenishment purposes and form Improvement District M. Approval of this measure obligated the landowners within the area to pay for their fair share of the extension of the pipeline. Construction on the approximately 71 mile Morongo Pipeline began in 1992 and was completed in 1995 and serves the communities of Johnson Valley, Joshua Tree, Landers, and Yucca Valley. The Pipeline delivers water from Hesperia to a five million gallon reservoir in Landers. From there, water is delivered to percolation ponds in the Yucca Valley area that act as natural filtration systems where water seeps back into the ground to recharge the aquifer.

#### 10. Mojave River Pipeline

Construction on another pipeline began in the late 1990s to offset the depletion of groundwater in the upper reaches of the Mojave River Basin caused by population growth and over pumping from wells. The Pipeline was completed in 2006 and spans approximately 72 miles. It can supply up to 45,000 acre-feet of water each year to the upper Mojave River Basin where it percolates into groundwater recharge basins located at Hodge, Lenwood, Daggett, and Newberry Springs. It serves the communities of Barstow, Daggett, Hodge, Lenwood, Minneola, Newberry Springs, and Yermo. The project was funded in part by grants and loans from the U.S. Environmental Protection Agency and California Department of Water Resources. A map of MWA's facilities, which includes the pipelines, is on page 10 of this report and is included as a part of Attachment #2.

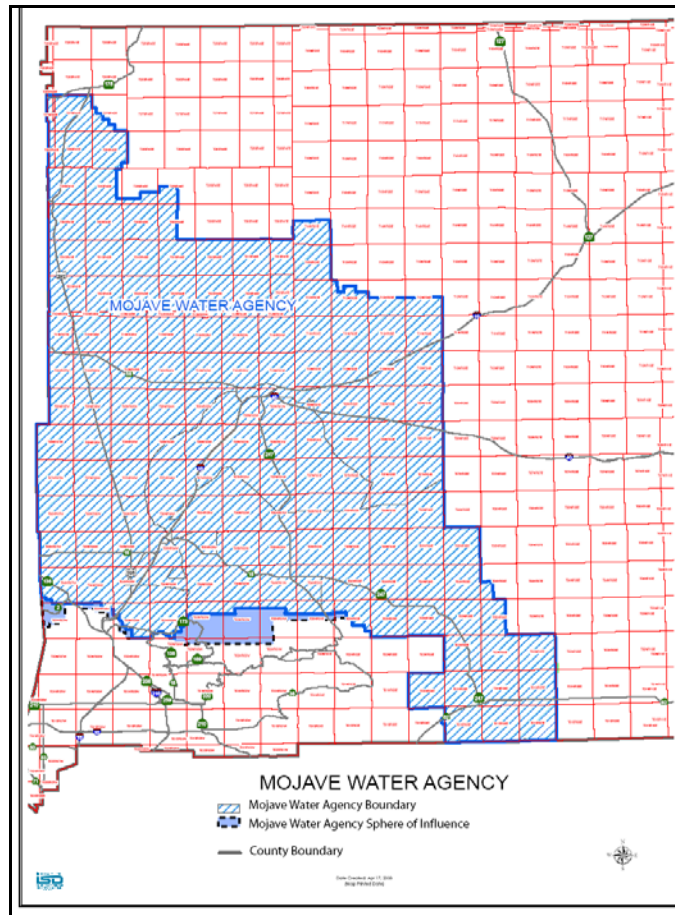
### **BOUNDARIES AND SERVICE AREA:**

The Mojave Water Agency is located in the north desert and east desert regions of the County of San Bernardino with the vast majority of its territory in the north desert region. The Agency encompasses approximately 4,872 square miles and includes the populated centers of the north desert such as the Cities of Adelanto, Barstow, Hesperia, and Victorville and the Town of Apple Valley and includes the east desert communities of Landers, Flamingo Heights, Joshua Tree, Pioneertown, and the Town of Yucca Valley.

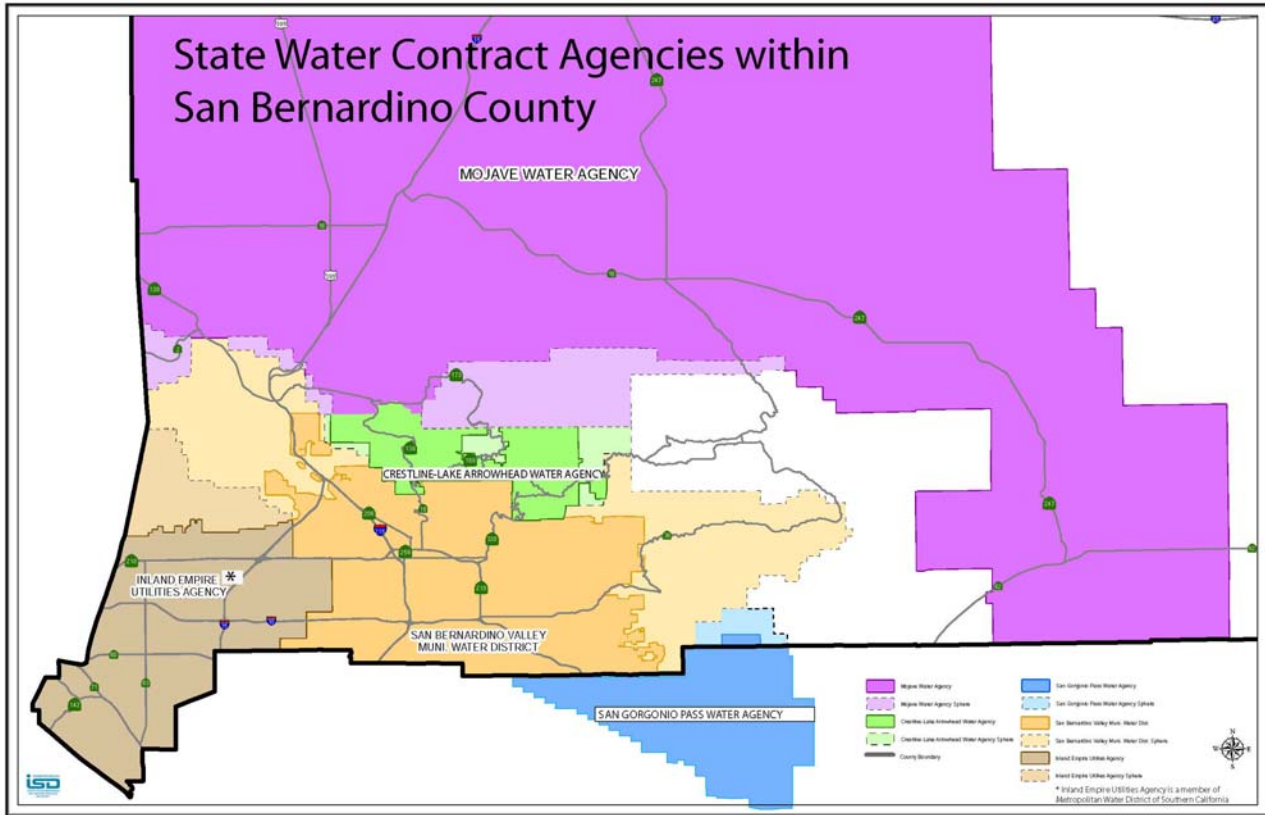
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<sup>7</sup> Littleworth, Arthur, L. and Eric L. Garner, California Water II, 2<sup>nd</sup> Edition, Solano Press, 2007, pg. 181.

Below is a map of MWA's boundaries and its sphere of influence which is also included as Attachment #1. As shown in the map, the sphere extends beyond the Agency boundary to the south to generally follow the National Forest boundary. MWA's sphere of influence is generally bordered by the Los Angeles and Kern County lines on the west; a combination of the Fort Irwin Military Reservation and China Lake Naval Weapons Center on the north excluding the community of Trona/Searles Valley; a combination of the east line of Range 4 East and section lines on the east which excludes the City of Twentynine Palms and includes the Town of Yucca Valley and communities of Landers, Flamingo Heights, Joshua Tree, and Pioneertown; and a combination of the National Forest boundary, Riverside County line, and section lines on the south which excludes the community of Morongo Valley.



Below is a map of the State Water Contractors within the County which is also included as a part of Attachment #2, which includes MWA, San Bernardino Valley Municipal Water District, Crestline-Lake Arrowhead Water Agency, Inland Empire Utilities Agency (IEUA is a member of the Metropolitan Water District of Southern California), and San Gorgonio Pass Water Agency. The San Bernardino Valley Municipal Water District sphere and Crestline-Lake Arrowhead Water Agency boundary and sphere about MWA's southern boundary and sphere.



The Mojave River adjudicated basin, for which MWA is the court-appointed Watermaster, encompasses approximately 3,400 square miles and for management purposes is divided into six sub-areas: Oeste, Este, Alto, Transition zone of the Alto, Centro, and Baja. Below is a map of the Mojave River Basin Adjudicated Boundary overlaying the Agency boundary.





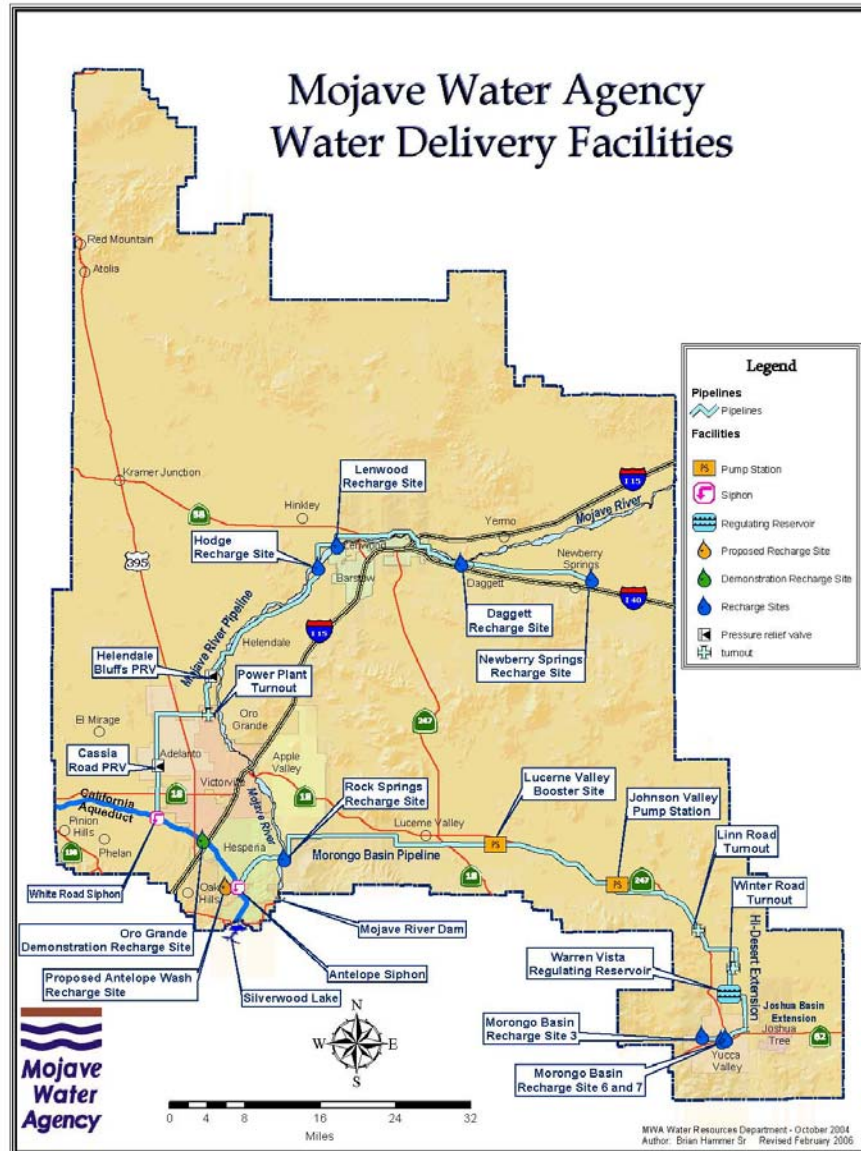
source: Mojave Water Agency

Service Area: Drainage Systems, Groundwater Basins, and Facilities

The MWA service area consists of two major surface drainage systems. The first and larger drainage system, the Mojave River Area, drains into the Mojave River or local dry lakes. The Mojave River is mainly underground and supports the vast majority of the groundwater-supplied agriculture and urban use in the Mojave River Basin.<sup>8</sup> The second drainage system is the Morongo Basin/Johnson Valley Area and this area has no rivers that contribute substantial

<sup>8</sup> Department of Water Resources, California Water Plan Update 2005, Vol 3, Ch 10 (2005).

amounts of water. This area contains portions of five separate surface water drainages: Warren, Copper Mountain, Emerson, Means, and Johnson.<sup>9</sup> Below is a map of MWA facilities which include the pipelines and recharge sites (also included as a part of Attachment #2).



source:  
Mojave  
Water  
Agency

<sup>9</sup> Mojave Water Agency, 2004 Regional Water Management Plan.

## **MUNICIPAL SERVICE REVIEW SUMMARY**

LAFCO requested the submission of specific information from MWA in order to prepare a service review as required by Government Code Section 56430. MWA's response to LAFCO's request includes, but is not limited to, copies of the 2004 Regional Wastewater Management Plan, audits for years ending June 30, 2006 and June 30, 2007, and budgets for Fiscal Years 07-08 and 08-09, which are included as a part of Attachment #3.

The 2004 Regional Wastewater Management Plan provided by the Agency is referenced throughout this report. The Regional Water Management Plan integrates the required elements of an Integrated Regional Water Management Plan, a Groundwater Management Plan, and an Urban Water Management Plan. The Regional Wastewater Management Plan in conjunction with the 2005 Urban Water Management Plan Update provides a regional framework for managing water resources. Due to its size, the 2004 Regional Wastewater Management Plan is not included as an attachment to this report but is available at the LAFCO staff office and on MWA's website at [www.mojavewater.org](http://www.mojavewater.org). The 2005 Urban Water Management Plan Update is included as a part of Attachment #3.

The following information responds to the factors in Government Code 56430.

### **GROWTH AND POPULATION PROJECTIONS FOR THE AFFECTED AREA.**

The service area of MWA includes the full range of land uses, from urban uses to vacant/open space lands. The Agency's territory includes the full range of potential growth, from areas with little to no growth to areas anticipated to experience significant growth in the future. The table on the next page is from the 2005 Urban Water Management Plan Update and utilizes two sources for its projections. Years 2005 through 2015 utilize projections from the Southern California Association of Governments, and years 2020 through 2030 utilize the California Department of Finance projections, which assume that the County will grow annually at the rate of 1.8% during those years. The table applies the assumed 1.8% growth rate for each of the sub-areas for 2020 through 2030. The Agency had 358,800 residents in 2005 and is estimated to have 646,900 residents by 2030 (an 80% increase).

For the population centers in the Victor Valley (generally the Alto and Alto Transition Zone sub basin areas), historical trends indicate moderate to high growth. Since 2000, the incorporated cities of the Victor Valley (Adelanto, Apple Valley, Hesperia, and Victorville) increased in population by 44%. The Victor Valley is anticipated to experience 94% growth between 2006 and 2030.<sup>10</sup> North of Victor Valley, the City of Barstow grew 13.1% and is estimated to grow 61.4% from 2005 to 2030 to a population of 38,571. As for the Town of Yucca Valley, from 2000 to 2005 the Town grew 8.9% and is estimated to grow 15.8% from 2005 to 2030 to a population of 21,150.<sup>11</sup>

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<sup>10</sup> San Bernardino Associated Governments, *Victor Valley Area Transportation Study, Fact Sheet*, (July 2006).

<sup>11</sup> Southern California Association of Governments, ([www.scag.ca.gov/forecast/index.htm](http://www.scag.ca.gov/forecast/index.htm)), accessed April 22, 2008.

**Figure 1. Current and Projected Population Estimates**

	2005	2010	2015	2020	2025	2030	Annual Percent Change 2005- 2030
<b>Mojave Basin Area</b>							
Alto	266,700	303,700	348,900	407,700	432,400	486,300	2.4%
Baja	5,300	5,600	5,900	6,200	6,600	7,400	1.3%
Centro	36,100	41,500	47,100	54,100	57,400	64,600	2.4%
Este	6,800	8,100	9,400	11,300	12,000	13,500	2.8%
Oeste	8,300	9,400	11,300	13,600	14,400	16,200	2.7%
<b>Subtotal Mojave</b>	<b>323,200</b>	<b>368,300</b>	<b>422,600</b>	<b>492,900</b>	<b>522,800</b>	<b>588,000</b>	<b>2.4%</b>
<b>MB/JV Area*</b>							
Copper Mtn. Valley	10,300	11,000	11,800	12,700	13,500	15,200	1.6%
Johnson Valley	400	500	500	600	600	700	2.3%
Means/Ames Valley	8,300	9,300	10,400	11,700	12,400	13,900	2.1%
Warren Valley	16,600	18,600	21,000	23,600	25,000	28,100	2.1%
<b>Subtotal MB/JV</b>	<b>35,600</b>	<b>39,400</b>	<b>43,700</b>	<b>48,600</b>	<b>51,500</b>	<b>57,900</b>	<b>2.0%</b>
<b>Total</b>	<b>358,800</b>	<b>407,700</b>	<b>466,300</b>	<b>541,500</b>	<b>574,300</b>	<b>645,900</b>	<b>2.0%</b>

\* Morongo Basin/Johnson Valley Area  
 source: Mojave Water Agency, 2005 Urban Water Management Update

**PRESENT AND PLANNED CAPACITY OF PUBLIC FACILITIES AND ADEQUACY OF PUBLIC SERVICES, INCLUDING INFRASTRUCTURE NEEDS OR DEFICIENCIES.**

Overdraft and Adjudication

The most significant regional issue is future water supply. The high growth rate in the region, coupled with a continued overdraft of the groundwater basin, which is the primary source of supply, is an infrastructure deficiency. Overdraft conditions have occurred in the basins due to the reliance on groundwater to meet water needs from a variety of uses which include domestic and agriculture. This has caused a decline in the water level, changes in water quality, loss of riparian habitat, and changes in the quantity and spatial distribution of recharge from the river.  
<sup>12</sup>

The Mojave Groundwater Basin is adjudicated under a stipulated judgment that specifies the amount of groundwater that can be extracted by groundwater producers using over 10 acre-feet per year, the purpose of which is to balance water supply and demand and address the overdraft. Producers are required to replace any water pumped above their Free Production Allowance by paying the Watermaster to purchase supplemental water or by purchasing unused production rights from another party.

<sup>12</sup> United States Geological Survey, Water Supply in the Mojave River Ground-Water Basin, 1931-99, and the Benefits of Artificial Recharge. (November 2001).

## Water Supply

### *Natural Recharge*

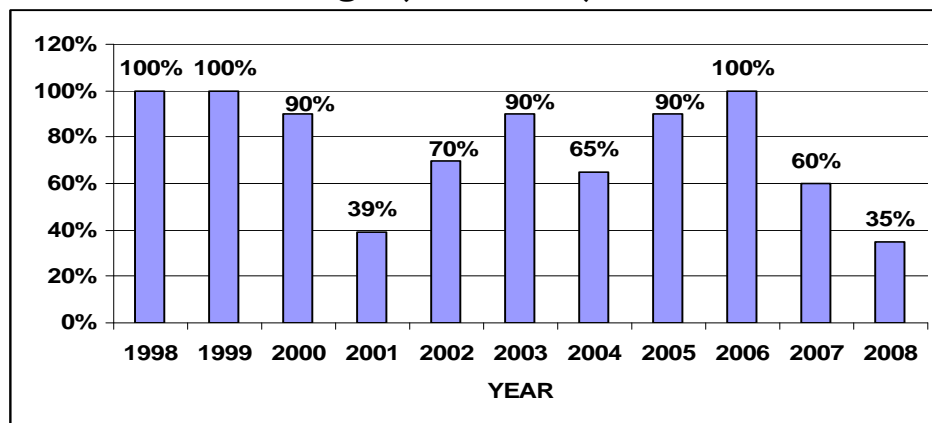
Natural recharge of the Mojave River Basin comes from the Mojave River and mountain runoff. MWA estimates an annual average of 65,500 acre feet of natural recharge each year through 2025 under normal conditions. For the Morongo Basin/Johnson Valley area, there are no rivers that contribute substantial amounts of water. There are only small streams that collect runoff from the mountains during storms that percolate into the stream or dry lake beds. To meet demand, the Agency imports supplemental water.

### *State Water Project*

MWA is one of 29 State Water Project contractors and was originally entitled to 50,800 acre-feet annually of State Water Project water. In 1997, MWA purchased 25,000 acre-feet of Berrenda Mesa Water District's (Kern County) entitlement to increase its entitlement to 75,800 acre-feet. However, the actual purchase amount is determined by MWA need and water available through the Department of Water Resources. The Agency has identified that it is seeking to purchase \$75 million worth of additional entitlement, of which \$25 million would be expended in FY 09-10 as a down payment in and an estimated \$50 million would be funded through debt. The amount of additional entitlement in acre-feet that would be purchased is unknown at this time.

The figure below shows the allocation percentage that State Water Contractors were allowed to purchase for the past ten years. For example, MWA is entitled to purchase up to 75,800 acre-feet of imported water per year, and for 2008 the allocation percentage is 35%<sup>13</sup>. Therefore, MWA can purchase up to 26,530 acre-feet in 2008.

**Figure 2. Department of Water Resources State Water Project Allocation Percentages (1998-2008) Statewide**

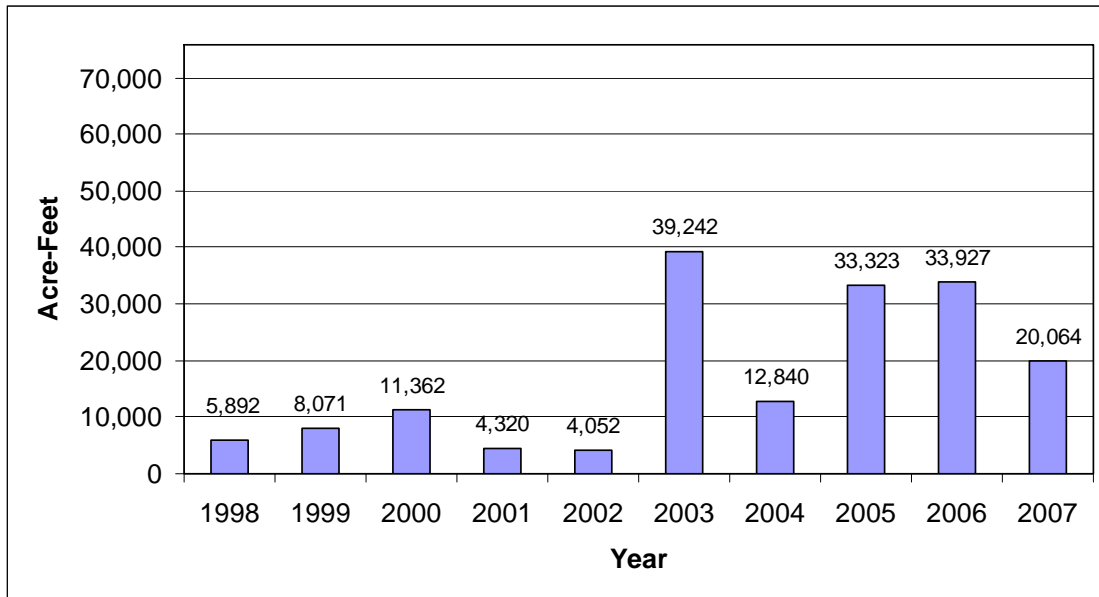


source: Mojave Water Agency, *The Panorama*, Vol. 41, Issue 2, Winter 2008.

<sup>13</sup> Department of Water Resources, "Snowpack Normal, but DWR Water Deliveries Limited by Federal Court Ruling", Press Release, March 26, 2008.

The Agency did not fully utilize its State Water Project water entitlement (see figure below) until 2003 and is planning to purchase more supplemental water to reduce the over-pumping of the Mojave River Basin. However, this is dependent on the amount of State Water Project water available for purchase. According to the FY 08-09 Budget, the Agency plans to purchase approximately 30,000 acre-feet, roughly the full amount available for purchase.

**Figure 3. Actual State Water Project Deliveries to MWA**



source: Mojave Water Agency

To determine the effectiveness of artificial recharge, the United States Geological Survey performed two groundwater flow models in 2001. The first model assumed no artificial recharge would be available and indicated that water levels would decline by as much as 60 feet after 20 years. The second model assumed the availability of 65,000 acre-feet per year of State Project Water and indicated water levels would be 100 feet higher near the artificial recharge sites. The results illustrate the importance of supplemental water to the basin used to mitigate the effects of overdraft.<sup>14</sup>

#### *Improvement District M*

In 1990, the southern portion of MWA's territory voted in favor of forming Improvement District M and to incur bonded indebtedness of \$66.5 million to finance the construction costs of the Morongo Basin Pipeline to deliver water from the California Aqueduct in Hesperia to Yucca Valley. A map of Improvement District M is included on page \_\_\_ of this report. The landowners of the improvement district are obligated to pay for 75% of the costs for construction of the Pipeline, and the Participating Agencies are obligated to pay the remaining 25%. The Participating Agencies each pay a share of the 25% as follows:

<sup>14</sup> United States Geological Survey

**Table 2. Improvement District Participating Agency Share**

<b>Agency</b>	<b>Original Share</b>	<b>Current Share</b>
<b>Hi-Desert Water District</b>	59%	59%
<b>Joshua Basin Water District</b>	27%	27%
<b>Bighorn-Desert View Water Agency</b>	9%	9%
<b>CSA 70 Improvement District W-1</b>	4%	1%
<b>CSA 70 Improvement District W-4</b>	1%	0%
<b>MWA</b>	0%	4%

Originally, CSA 70 Improvement District W-1 was obligated to pay 4% and CSA 70 W-4 to pay 1%. However, in 1995, MWA acquired 3% of the rights from CSA 70 W-1 and 1% from CSA W-4. According to County Special Districts Department staff, MWA was requested by the County Board of Supervisors to buy CSA 70 W-1 and W-4 shares due to lack of utilization of the water. The percentage share identified for each Participating Agency also reflects the percentage of water which they are entitled. The Board of Supervisors action relinquished its rights to purchase supplemental water from the Pipeline when they sold the W-1 and W-4 shares.

*MWA Demonstration Exchange Program*

In 2003, the Agency and the Metropolitan Water District of Southern California (MET) entered into an agreement for a water demonstration exchange program. The project is intended to determine the viability of a long-term relationship for water banking opportunities. Under the terms of the amended agreement, MET will deliver (in a storage account) a one-time transfer of up to 75,000 acre-feet to MWA. MWA is to return to MET the previously stored water by 2015, subject to the Agency's available State Water Project supply less local demands. MET delivered 45,000 acre-feet of water as determined by MET from the amount available for transfer. To date, MWA has returned 26,000 acre-feet and estimates an additional 8,490 acre-feet will be returned this year.

*Water Monitoring*

There are many groundwater basins within MWA with water quality issues. Significant contaminants include arsenic, nitrates, iron, manganese, Chromium VI, total dissolved solids, total petroleum hydrocarbons, and volatile organic compounds. In each groundwater basin sub-area these contaminants are present. The 2004 Regional Water Management Plan indicates that the groundwater in these areas will have to be treated or replaced. Salt accumulation is another growing water quality issue since the basins are essentially closed, with little flow of groundwater between them. Regional efforts will need to be undertaken, working in conjunction with local water retailers, to address the water quality issues.

MWA has implemented a project to develop a groundwater analysis system for the entire MWA service area. This system allows the Agency to collect, analyze, and access water quality information to meet its long-term water quality objectives. According to the Agency, approximately 140 groundwater-monitoring wells have been installed since the 1990's. These

wells monitor changes in the aquifers and samples are taken to ensure that there are no new contaminants in local aquifers. The Department of Water Resources provided a \$250,000 grant for the Agency to develop a 2,000 foot deep monitoring well (known as the Deep Well Project) upstream of the Mojave River near Hesperia in the Oro Grande wash. This project allows MWA to monitor water levels and anticipate supply and distribution needs before they become urgent.

Water Demand

Even with the decrease in imported water for 2008 (estimated availability 26,530 acre-feet in 2008), MWA has received requests for 58,000 acre-feet from water purveyors, more than two times the estimated allocation for the year. According to MWA, this will be the first year that it will be unable to meet all requests. Some water purveyors will receive less than requested and will require implementation of conservation or contingency measures. To help meet demands, MWA will utilize about 5,000 acre-feet of its 100,000<sup>15</sup> acre-feet of stored water.

*Consumptive Use*

In the Mojave Basin Area, all uses except for recreation will experience significant increases in consumptive use. Agricultural and municipal consumptive uses are the main driver in increasing overall water consumption, as shown in Figure 4 below. The projection for agricultural use depends on the extent that agricultural users will transfer their water rights in the future; either way, agricultural use will require additional water.

**Figure 4. Mojave Basin Area Consumptive Use (Acre-feet per Year)**

	2000	2005	2010	2015	2020	2025	2030
Industrial	12,500	16,500	16,500	16,500	16,500	16,500	16,500
Municipal	46,000	51,200	56,300	62,200	69,900	72,200	78,700
Golf Courses	2,400	2,700	3,100	3,500	4,100	4,400	4,900
Recreational	9,400	9,400	9,400	9,400	9,400	9,400	9,400
<b>Total: Including Ag Scenario 1</b>	<b>105,200</b>	<b>114,700</b>	<b>120,200</b>	<b>126,500</b>	<b>134,800</b>	*	*
<b>Total: Including Ag Scenario 2</b>	<b>105,200</b>	<b>112,200</b>	<b>106,700</b>	<b>106,900</b>	<b>112,400</b>	<b>115,000</b>	<b>122,000</b>

\* Note for 2005 UWMP Update: Agricultural Scenario 2 was adopted as the basis for further planning in the 2004 Regional Water Management Plan. Under Agricultural Scenario 2, there are significant decreases in agricultural consumptive use due to the assumption that agriculture will voluntarily transfer its free production allowance to non-agricultural uses in lieu of purchasing replacement water. Examination of FPA transfers from through 2004 shows that this trend has already significantly progressed.

source: Mojave Water Agency, 2005 Urban Water Management Plan Update

In the Morongo Basin area, agricultural use has been declining since 1990. Other consumptive uses have remained generally constant since 1995. As indicated in Figure 5 below, municipal use is far and away the majority user and is projected to increase from 2,500 acre-feet per year in 2000 to 4,300 acre-feet per year by 2030. Overall, the total projected consumptive use in the Morongo Basin area is anticipated to increase 74% from 2000 to 2030.

<sup>15</sup> The 100,000 acre-feet is the projected amount that will be available in the storage account net water reserved to meet future replacement obligations, recent debits for deliveries, and future deliveries prior to the fiscal year.



**Figure 5. Morongo Basin Area Current and Projected Consumptive Use (Acre-feet per Year)**

	2000	2005	2010	2015	2020	2025	2030
Agricultural	0	0	0	0	0	0	0
Industrial	0	0	0	0	0	0	0
Municipal	2,500	2,900	3,000	3,400	3,700	3,900	4,300
Golf Courses	200	200	200	300	300	300	400
Recreational	0	0	0	0	0	0	0
<b>Total</b>	<b>2,700</b>	<b>3,100</b>	<b>3,200</b>	<b>3,700</b>	<b>4,000</b>	<b>4,200</b>	<b>4,700</b>

source: Mojave Water Agency, 2005 Urban Water Management Plan Update

Regional Recharge and Recovery Project (R-Cubed)

Due to anticipated increases in demand for water through 2025, MWA will need to consider additional projects and water strategies to recharge the waterbasins to protect the quantity and quality of the water for all types of uses. According to the 2005 Urban Water Management Plan, if such measures and projects are not implemented, the presiding judge for the Mojave Basin Judgment could require mandatory reductions in production.

One such effort undertaken by the Agency is the Regional Recharge and Recovery Project (also known as R-Cubed) which plans to store up to 40,000 acre-feet (13 billion gallons) annually for recharging the Mojave Groundwater Basin. According to MWA staff, all water pumped will be offset by State Water Project water recharged into the River. In years when demand is high, the Agency will extract the water from the replenishing wells and deliver it to water purveyors. Included in the project are pump stations, turnouts, a nine-mile east-west pipeline, and a well in the Upper Mojave Basin along the river.

The project is currently in the design and planning phase, start of construction is scheduled for June 2009, and MWA is aiming for its completion by 2010. The Agency was awarded a grant of about \$23 million from Proposition 50 for the project, which is roughly half the cost of the project. In addition, the Agency is seeking project sponsorships from local agencies that would directly benefit from the project. An incentive for financial participation is that those local agencies that participate financially would have priority in the capacity of the project. This would provide such local agencies with a more reliable source of water. A map of R-Cubed is included as a part of Attachment #2.

Las Flores Ranch Corporation and Mojave River County Water District v. Lake Arrowhead Development Company

The Mojave River County Water District (District) obtained a Judgment in 1966 to limit the amount of water that could be taken by entities upstream of the District. In 1995, LAFCO approved the dissolution of the District (LAFCO 2795), and as a condition of the dissolution MWA succeeded to the responsibilities of the District related to the judgment. Specifically, MWA intervened in the lawsuit *Las Flores Ranch Corporation v. Lake Arrowhead Development Company*. By intervening in the case, MWA “shall monitor compliance with the Judgment”.

The monitoring effort involves determination of minimum water flows through a metered facility from Grass Valley Lake into Grass Valley Creek, a tributary to the Mojave River, as prescribed by the Judgment.

The actual responsibility to monitor and report the data resides with the Arrowhead Lake Association, and the Arrowhead Lake Association uses data collected from the Lake Arrowhead Community Services District for monitoring and reporting. MWA's role is to maintain water transfer records of discharge into Grass Valley Creek and to maintain water transfer records from Grass Valley Creek and Grass Valley Lake into Lake Arrowhead. The Agency is fulfilling its obligation by maintaining the discharge and transfer records.

According to MWA staff, the reporting from Arrowhead Lake Association to MWA has been irregular. MWA has made numerous requests for the Arrowhead Lake Association to upgrade existing monitoring capability. To ensure consistent and accurate reporting, Arrowhead Lake Association and Lake Arrowhead CSD are entering into a memorandum of understanding to address a comprehensive monitoring program at Lake Arrowhead. MWA staff, in written correspondence to Lake Arrowhead CSD, is requesting that all parties to the Judgment should agree on the monitoring program and stipulate the agreement to the Court.

### **FINANCIAL ABILITY OF AGENCIES TO PROVIDE SERVICES.**

MWA submitted budget and audit information as part of the service review. This information is included as a part of Attachment #3. The audits and budgets for the Agency include, but not separately, the entities for which it is financially accountable: the Mojave Basin Area Watermaster<sup>16</sup> and the Mojave Water Agency Public Facilities Corporation<sup>17</sup>. For the purposes of this service review, all three entities are considered as the "Agency" or "MWA".

#### Revenues

##### *Taxes and Assessments*

In 1977/78, before Proposition 13, all landowners within MWA paid two taxes, as identified in the County's 1977/78 tax rate book, for the purpose of funding the Agency's obligations for repayment of the State Water Project and to provide for administration of the agency. The tax rates were:

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<sup>16</sup> The Mojave Basin Area Watermaster was created in 1994 as the initial entity to administer the judgment and the physical solution set forth by order of the Riverside Superior Court of California. This judgment and physical solution established policy for water usage by Mojave Basin cities, farmers, and other landowners. The Watermaster assesses producers for their fare share of excess production, administration, and environmental commitments. The policy of the Watermaster is not to purchase make-up water or replacement water until assessments have been collected. source: Mojave Water Agency, FY 2005-06 Audit.

<sup>17</sup> The Mojave Water Agency Public Facilities Corporation was formed in May 1997, pursuant to the Nonprofit Public Benefit Corporation Law of the State of California (Title 1, Division 2, Part 2 of the California Corporation Code) solely for the purpose of providing financial assistance to the Agency. source: Mojave Water Agency, FY 2005-06 Audit.

- 45 cents per \$100 of assessed valuation based on land
- 27.8 cents per \$100 of assessed valuation based on land and improvements

Following implementation of Proposition 13, a portion of the previous tax structure was applied to the 1% general levy and the rates for bond repayment and administrative costs for the State Water Project became separate tax assessments. Currently, all landowners within MWA pay three taxes, as shown on the property tax bills issued by the County Treasurer-Tax Collector, defined by MWA as follows:

- General Tax Levy (Share of the one percent ad valorem) - The Agency receives a share of the one percent ad valorem property tax, with a year-end projection of \$3.8 million for FY 07-08. Pursuant to the Agency's budget documents the use of these revenues is unrestricted, but a portion is used as repayment of the Morongo Basin Pipeline (the Agency as a project participant pays 4% of the 25% participating agencies' cost share of the bonds).
- Mojave Water Bond Debt #1 – Pursuant to Water Code Appendix 97-16, the Agency is authorized to levy an assessment not to exceed 45 cents per \$100 of assessed valuation based on land only. The Agency has indicated that Proposition 13 limited the 45 cent rate to 11.25 cents, and MWA levies the full 11.25 cent rate as a separate assessment. It is dedicated to repayment for State Water Project contract costs and any variable costs<sup>18</sup> to deliver the water. This tax is identified as “MWA1” in the budgets and audits, with a year-end projection of \$13.3 million for FY 07-08.
- Mojave Water Bond Debt #2 – The property tax bills identify a second special tax titled “Mojave Water Bond Debt #2”. The FY 07-08 year-end projection is \$20 million for Mojave Water Bond Debt #2, or the Budget identified special taxes of MWA2 (a) and (b). The District has identified the following calculation structure for this special tax:
  - MWA2(a) – If the Mojave Water Bond Debt #1 does not yield adequate revenue for its purpose, the Agency is authorized to levy a special tax for the additional revenue required for the purpose of paying all other costs, expenses, and obligations of the Agency for the State Water Project contract (Water Code Appendix 97-16). The Agency Budget documents identify the rate for this special tax at 3 cents per \$100 of assessed valuation based on land and improvements. One cent is used to pay for State Water Project contract costs not covered by the MWA1 special tax. It can also be used for purchase of stored water and State Water Project entitlements. Two cents is dedicated for the Berranda Mesa debt (purchase of additional State Water Project entitlement).
  - MWA2(b) – The Agency is authorized to levy a special tax not to exceed 10 cents per \$100 of assessed valuation based on land and improvements to pay for the

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<sup>18</sup> California Water Code Appendix 97-16 defines “variable costs” as those costs paid by the agency which constitute operation, maintenance, power, and replacement costs incurred in an amount which is dependent upon and varies with the amount of project water delivered to the agency by the state.

administration of the Agency, pursuant to Water Code Appendix 97-16. However, Proposition 13 limited the 10 cent rate to 2.5 cents, and MWA levies the full 2.5 cent rate.

Following Proposition 13, the Legislature enacted statutes to implement its provisions. Under these statutes, a local government's share of the one percent general levy was based on the share of the property tax going to that local government before Proposition 13 (excluding counting bond debt). LAFCO and Mojave Water Agency staffs have reviewed the question of how the two special taxes are defined each year for placement on the tax roll. For Mojave Water Bond #2, it is LAFCO staff's understanding that the share identified by the Agency as "MWA2(b)" for general administrative purposes was converted to the MWA's share of the general ad valorem tax. It is also understood that the administrative share for the State Water Project contract costs, Berrenda Mesa debt, etc. identified by the Agency as "MWA2(a)" can be included in the special tax. Mojave Water Agency staff has implemented the structure as defined above and annually adopts a resolution requesting the County to assess and collect the special taxes (a copy of the resolution is included as a part of Attachment #3). There are no documents currently available to LAFCO staff to rectify the question of the structure of Mojave Water Bond #2 and its special tax status.

In addition to the taxes listed above, the landowners within Improvement District M pay for the special assessment toward 75% of the bond debt for the Morongo Basin Pipeline. The rate for this assessment is 8.5 cents per \$100 of assessed valuation based on land and improvements (both secured and unsecured). The balance of the bond is paid by the participating agencies. For FY 07-08, \$2.3 million is projected for this assessment.

MWA receives revenue from the sale of water to purveyors, although the purchase and sale of water should be equal. An assessment of 25% (reliability assessment) on water sales was initiated in 02/03 and is used to pay for water rights, stored water, and infrastructure through the issuance of debt or on a pay-as-you-go basis.

#### *Federal and State Funding*

In December 2007, the "Southern California Desert Region Integrated Water and Economic Sustainability Act" was signed by the President of the United States as part of the federal Omnibus spending bill. The bill, HR. 771, authorizes the Secretary of the Interior to participate in the design, planning, and construction of projects to implement MWA's Integrated Regional Water Management Plan. The bill allows the Agency to seek up to \$20 million in appropriations through various spending bills. In the same Omnibus federal spending package, MWA secured appropriations for two key projects. The invasive species removal project in the Mojave River Basin received \$710,000 from the Department of Agriculture. The R-Cubed project received \$123,000 from the 2007 Energy and Water Bill to continue its development.<sup>19</sup>

The Agency also was approved for a \$25 million State of California Proposition 50 grant towards the R-Cubed project, water conservation, and invasive species removal. During FY 08-09, \$15 million is estimated to be received from the grant.

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<sup>19</sup> Mojave Water Agency, Panorama, Vol. 41, Issue 2, Winter 2008.

## Funds

MWA has three funds: State Water Project fund, General fund, and a Debt Service fund. According to the materials provided by the Agency, monies do not transfer between the funds and the general money flow is as follows:

- State Water Project Fund
  - Receives revenues from Mojave Bond Debt #1 and Mojave Bond Debt #2 assessments
  - Pays for State Water Project fixed costs, storage water, and State Water Project entitlements
- General Fund
  - Receives revenues from a portion of Mojave Bond Debt #2 assessment and water charges
  - Pays for administrative costs, State Water Project costs, and capital
- Debt Service Fund
  - Receives revenues from general and special taxes and reliability charges.
  - Pays for Department of Water Resources loan and new State Water Project entitlement debt.

## Commitments and Long-Term Debt

### *Commitments*

As a state water contractor, MWA has entered into a contract with the State Department of Water Resources in order to receive an annual entitlement of water from the State Water Project. In turn, the Agency pays a proportionate share of the construction and maintenance costs of the State Water Project in addition to variable and replacement costs for water deliveries received. The Agency's FY 2006-07 audit refers to the Department of Water Resources Bulletin 132-07 and lists the Agency's total State Water Project costs from 2008 to 2035 as \$712,485,000, assuming full delivery of entitlement.

### *Long-term Debt*

According to the FY 07-08 budget, as of June 30, 2008, MWA's long-term debt is comprised of:

- Improvement District M general obligation bond (\$33.3 million), matures 2022;
- Certificate of participation for supplemental water entitlement project (\$21.3 million), matures 2022; and
- Three loans due to the Department of Water Resources totaling \$5.7 million for groundwater charge, two loans mature in 2014 and one loan matures in 2018.

FY 2006-07 Audit

For FY 2006-07, the net assets of the Agency consisted of approximately \$25 million in unrestricted assets, \$31 million in restricted assets, and \$197 invested in capital assets. As shown below in the excerpt from the audit, the Agency began the year with a cash balance of \$27.2 million and ended the year with a balance of \$49.4 million. The increase in cash flow is due to several factors. First, the Agency paid less than the prior year for goods and services, principal and interest for long-term debt, and acquisition of capital assets. Second, MWA received \$8.3 million more in property tax revenue than the prior year.

STATEMENTS OF CASH FLOWS		
For the Years Ended June 30, 2007 and 2006		
	2007	2006
	<i>(Amounts in thousands)</i>	
<b>Cash flows from operating activities</b>		
Cash received from customers	\$ 8,311	\$ 7,573
Cash payments to suppliers for goods and services	(5,210)	(14,372)
Cash payments to employees and directors for services	(3,657)	(2,314)
Other operating revenues / expenses	-	2,047
	<hr/>	<hr/>
Net cash provided by/(used in) operating activities	(556)	(7,066)
<b>Cash flows from non-capital financing activities</b>		
Other cash payments	(405)	-
<b>Cash flows from capital and related financing activities</b>		
Principal paid on long-term debt	(1,631)	(9,404)
Interest paid on long-term debt	(2,378)	(3,512)
Acquisition of capital assets	(9,671)	(13,409)
Property taxes received	35,042	26,749
Capital contributed for construction	-	4,905
	<hr/>	<hr/>
Net cash provided by/(used in) capital and related financing activities	21,362	5,329
<b>Cash flows from investing activities</b>		
Interest received	1,775	1,029
<b>NET INCREASE (DECREASE) IN CASH</b>	<b>22,176</b>	<b>(708)</b>
<b>CASH</b>		
Beginning of year	<hr/>	<hr/>
	27,178	27,886
End of year	<hr/> <hr/>	<hr/> <hr/>
	\$ 49,354	\$ 27,178

FY 2007-08 and FY 2008-09 Budgets

The figure below is from the FY 2008-09 Budget comparing FY 2007-08 through FY 2009-10. The FY 2008-09 Budget was adopted by the MWA board on June 26, 2008. A review of the budget indicates that the most notable increase in revenues (approximately \$27 million from FY 07-08 Projected) is due to grants and sponsorships. Additionally, the increase in water sales projected is an effect of the court-mandated rampdown which requires the purchase of more supplemental water as the basin is ramped down.

Expenditures are budgeted at \$87.4 million and are anticipated to increase by \$56.4 million from FY 07-08 Projected. The sharp increase is primarily due to DWR fixed payments, water purchases, and capital projects. The percentage breakdown of the Expenditures for the year is:

- Capital costs (\$48.5 million – 56%),
- Department of Water Resources fixed costs (\$12.4 million – 14%),
- Water purchases (\$11.6 million – 13%),
- Departmental expenses (\$8.5 million – 10%, of which \$2.6 million is salaries), and
- Debt service (\$5.9 million – 7%).

**Figure 6. FY 2007-08 Budgeted and Projected and Projected for FY 2008-09 and 2009-10 Budgets**

	FY 2007/2008 Budget	FY 2007/2008 Projected	Variance Fav (Unfav)	FY 2008/2009 Budget	FY 2009/2010 Budget
<b>Beginning Cash Reserves</b>	<b>\$ 44,961,384</b>	<b>\$ 44,961,384</b>	<b>\$ -</b>	<b>\$ 69,289,053</b>	<b>\$ 63,968,118</b>
<b>Revenues</b>					
Water Sales (net of Reliability Assessment)	6,198,605	7,951,915	1,753,310	9,220,044	10,920,248
Reliability Assessment (25%)	2,281,675	2,451,145	169,470	2,267,886	2,818,632
MWA 1 - 11.5¢	13,822,997	14,500,000	677,003	13,304,656	13,969,889
MWA 2 (a) 3¢	10,749,269	11,600,000	850,731	10,950,893	11,498,438
MWA 2 (b) 2.5¢	8,957,723	9,600,000	642,277	9,125,744	9,582,032
General Property Tax	1,273,713	3,600,000	2,326,287	3,780,000	3,969,000
ID M Minimum OMP&R	178,000	-	(178,000)	-	-
ID M Capital Replacement	277,000	-	(277,000)	-	-
ID M Property Tax Assessment	2,802,859	2,450,000	(352,859)	2,302,166	2,417,274
ID M Debt Service Support	803,375	792,561	(10,814)	802,375	802,438
Rent	14,000	14,004	4	14,000	-
Interest	1,000,000	2,305,809	1,305,809	2,364,943	1,969,474
Grants	4,395,000	-	(4,395,000)	15,475,000	9,275,000
Project Sponsorships / Local Funding	-	-	-	12,470,079	12,737,500
Miscellaneous	10,000	24,692	14,692	-	-
<b>Total Revenues</b>	<b>\$ 52,764,216</b>	<b>\$ 55,290,126</b>	<b>\$ 2,525,910</b>	<b>\$ 82,077,786</b>	<b>\$ 79,959,925</b>
<b>Expenditures</b>					
DWR Min OMP&R	4,405,000	4,972,118	(567,118)	6,038,313	6,642,144
SWC Member Allocation	90,000	100,000	(10,000)	130,000	130,000
Tax Collection Exp	413,000	608,583	(195,583)	608,100	632,472
DWR Bond and Capital	6,074,224	5,690,595	383,629	6,263,398	6,889,738
Water Purchase - Storage	-	-	-	1,260,000	2,640,000
Water Purchase for Resale	7,528,375	5,012,028	2,516,347	10,296,468	11,286,528
Departmental Expenses	6,486,452	5,440,213	1,046,239	7,871,468	7,741,227
DWR Loans	807,365	807,364	1	807,365	807,365
ID M	3,213,500	3,213,500	-	3,211,125	3,209,875
Berrenda Mesa	1,923,056	1,923,056	-	1,928,744	1,917,980
New Table A Purchase*	-	-	-	-	25,000,000
Capital	16,247,407	3,195,000	13,052,407	48,983,740	33,390,652
<b>Total Expenditures</b>	<b>\$ 47,188,379</b>	<b>\$ 30,962,457</b>	<b>\$ 16,225,922</b>	<b>\$ 87,398,721</b>	<b>\$ 100,287,981</b>
<b>Ending Cash Reserves</b>	<b>\$ 50,537,221</b>	<b>\$ 69,289,053</b>	<b>\$ 18,751,832</b>	<b>\$ 63,968,118</b>	<b>\$ 43,640,062</b>

\* This represents the cash down payment. An estimated \$50 million will be funded through debt.

MWA cannot control the costs for State Project Water as these costs are charged by the Department of Water Resources. MWA establishes its wholesale rates annually to compensate for variable costs charged from the Department of Water Resources. According to the materials provided by MWA, these variable rates include charges for operation, maintenance, power, and replacement costs for the State Water Project, as well as capital recovery and administrative burdens. In 2006 the Agency paid \$10.3 million in State Water Project costs, paid \$11.5 million in 2007, and anticipates \$12.4 million for 2008.

As illustrated in the chart below, actual revenues are close to the budget. However, there is a disparity between actual and budgeted expenditures. This has greatly increased the Agency's cash balance. From FY 05-06 through FY 07-08 the cash balance increased by \$42.1 million (155%) from \$27.2 million to \$69.3 million.

### Budget to Actual Comparison

Year	Revenues		Expenditures		Ending Balance
	Budget	Audit, Actual, Projected	Budget	Audit, Actual, or Projected	
<b>FY 05-06 *</b>	\$40.8	\$39.4	\$38.5	\$24.4	\$27.2
<b>FY 06-07 *</b>	\$43.3	\$49.9	\$41.2	\$25.6	\$49.4
<b>FY 07-08 **</b>	\$52.8	\$55.3	\$47.2	\$31.0	\$69.3
<b>FY 08-09 **</b>	\$82.1	--	\$87.4	--	\$63.4
<b>FY 09-10 **</b>	\$80.0	--	\$100.3	--	\$43.6

source: \* MWA FY 2006-07 Budget and MWA Audit June 30, 2007 and 2006  
\*\* MWA FY 2008-09 Budget

### Five Year Capital Budget

While it may seem the Agency is not expending its revenue, over the next five years, MWA's Capital Budget plans for over \$100 million in capital projects (\$46 million to be expended in FY 08-09), of which \$45 million is estimated to be funded through grants or local funds. The activities include recharge projects, invasive species removal, and land acquisition. A detailed breakdown of these activities is included as a part of Attachment #3, and a summary of the projects over \$5 million in cost are listed below.

- Regional Recharge and Recovery Project (R-Cubed) - The estimated cost of the project is \$62.7 million. Funding from Proposition 50 grants (\$23 million) and local funding (\$12 million) is estimated to reduce the MWA share of the project cost to \$21.7 million.
- South Rock Springs Recharge- The estimated cost of the project is \$6.4 million. At this time there are no grants or sponsorships.
- Oro Grande North Recharge - The estimated cost of the project is \$7.7 million. Funding from Proposition 50 grants (\$2.5 million) and local funding (\$1.25 million) is estimated to reduce the MWA share of the project cost to \$3.25 million.



- Agency Building Expansion - The estimated cost of the project is \$8.5 million. The sale of the existing headquarters building and other facilities is estimated to reduce the project cost to \$7.8 million.

### **STATUS OF, AND OPPORTUNITIES FOR, SHARED FACILITIES.**

MWA shares the California Aqueduct facility with the other state water contractors, and as a participant, shares the Morongo Basin Pipeline with the other participating agencies.

### **ACCOUNTABILITY FOR COMMUNITY SERVICE NEEDS, INCLUDING GOVERNMENTAL STRUCTURE AND OPERATIONAL EFFICIENCIES.**

#### Governmental Structure

Representation is divided among seven divisions, and each division elects a director to represent that division. Elections are consolidated with County elections every even-numbered year in November. The odd numbered divisions (1, 3,5, and 7) and the even numbered divisions (2,4, and 6) are held every four years on an alternating basis. Of the seven current board members, six have been elected and one has been appointed. The board members also sit as members of MWA's four committees, which are:

- Planning, Resources, and Technology
- Engineering and Operations
- Personnel, Finance, and Security
- Legal/Legislative and Public Information

The MWA staff and the seven members of the board of directors function as the staff and board of directors of the Watermaster. As indicated in the financial section of this report, the Watermaster is considered and presented as a component unit of MWA. The Mojave Basin Area Judgment stipulates that each sub-area has an advisory committee that reviews and makes recommendations on all discretionary determinations by the Watermaster that may affect that sub-area. Each sub-area advisory committee consists of five members (which can be persons or water purveyors) elected by the water producers in the sub-area.

#### Agency Practices

Providing the framework and focus for the Agency to fulfill its legislative mandate is its Strategic Plan. The Strategic Plan contains its vision and mission statements and defines its goals. The Agency uses fiscal and policy directives to revise the goals and elements of the Strategic Plan annually. The annual revisions of the Plan in conjunction with the Regional Water Management Plan are then used to formulate the budget, financial plan, and capital improvement program.

The annual budget is presented to a standing committee in April and May and then to the board of directors in a public hearing in June where the public can provide comments. Staff also presents to the board a mid-year budget review. In addition staff presents a monthly reconciliation of payments and a liquidity report to the Board of Directors.

There are other activities that the Agency does to increase public awareness and participation. The Agency publishes a quarterly newsletter, *The Panorama*. The newsletter contains a calendar of events, community information, articles on water issues, and methods to reduce water use. The Agency provides speakers to local and community groups to speak about water issues and MWA's projects and plans. Recently, MWA released its new website, titled "State of the Basin". This site contains Mojave River Basin information regarding water level, water quality, weather, watershed discharges, and deliveries. It can be accessed from the main MWA website.

### Operational Efficiency and Partnerships

MWA is the lead agency in a water conservation coalition, the Alliance for Water Awareness and Conservation (AWAC). As the lead agency, MWA has hired a full-time water conservation coordinator who serves as executive director to AWAC. This alliance promotes water conservation throughout the High Desert and operates on an adopted memorandum of understanding. The three goals of AWAC are to:

- Educate the community of the importance of water conservation.
- Provide the local community with the tools to effectively reduce per capita consumption to targeted areas.
- Reduce regional water use by 10 percent gross per capita by 2010 and 15 percent gross per capita by 2015 (5 percent in the Morongo Basin by 2015), and 20 percent by 2020 to achieve a sustainable, reliable supply to meet regional water demands.

MWA is actively involved in water conservation efforts through its Water Conservation Incentives Program. The Water Conservation Incentives Program provides rebates to homeowners to make their homes more water friendly. Rebates are given for installation of high efficiency toilets and water efficient clothes washers and conversion of grass lawns to a more desert friendly landscape. The program is sponsored by MWA, AWAC, and the Department of Water Resources. According to the FY 08-09 Budget, MWA will invest \$500,000 toward this program for the year.

MWA participates in a joint powers authority, State Water Contractors, which consists of agencies that have state water contracts. The purpose of the entity is to provide for the development and delivery of water from the State Water Project to contractors.

The Agency participates with numerous entities, through either monetary contribution or through services or resources, on various projects. These projects include:

- Hi-Desert Water District Recharge Site #3
- Joshua Basin Water District Recharge Project Study
- Proposition 50 projects with
  - California Department of Fish and Game for well installation

- Mojave Desert Resource Conservation District for invasive species removal along the Mojave River
- Strategic Partnerships with
  - Victor Valley College
  - Barstow Community College
  - Copper Mountain College
  - Lewis Center for Educational Research

### Governmental Structure Options

MWA staff in preparing the municipal service review indicated that there were no consolidations or other structure options available since it is not a water utility but rather a state water contractor and water wholesaler. While the discussion of some government structure options may be theoretical, a service review should address all possible options.

One option would be to expand the territory of the Agency to include areas within the County not a part of a State Water Contractor. An annexation to the Agency would subject the area to the debt for the State Water Project. One area in particular that would appear to LAFCO staff to be considered would be the Morongo Valley area. Such an action would require an application to LAFCO with a plan for service entailing how the Agency would serve the expanded area, and the application would require LAFCO Commission approval and support by the residents and landowners.

A second option would be to consolidate the Agency with the State Water Contractors abutting the Agency's boundary and sphere on the south. These agencies are the Crestline-Lake Arrowhead Water Agency and the San Bernardino Valley Municipal Water District. Even though economies of scale could be achieved, staff does not support consolidation at this time because there is no evident reason to support such an action. First, the boundaries and spheres of these three agencies are generally divided by either hydrological divides or the National Forest boundary. Second, each agency has its own unique water needs and methods of storage. Third, Crestline-Lake Arrowhead Water Agency actively provides retail water for domestic use; MWA does not provide domestic retail at this time. Consolidation would require an application to LAFCO with a plan outlining the terms of the consolidation, the formation of an improvement zone to separate the adjudication areas from the areas not under adjudication, and LAFCO Commission approval.

A third option would be dissolution of the Agency. In 1977 LAFCO conducted a special study regarding the effectiveness of the Agency and whether or not the Agency was fulfilling its legislative mandate to ensure sufficient water is available within its boundaries. The Commission made a recommendation regarding the Agency and legislation was passed (independent of the Commission's study) which restructured the representation of the Agency. LAFCO staff's analysis of the information provided by the Agency for this municipal service review, LAFCO 3033, which includes water plans and studies, financial information, and long-term plans, indicates that the concerns regarding the Agency from 1977 are no longer present.

## SPHERE OF INFLUENCE REVIEW

***LAFCO staff recommends that the Commission affirm the Mojave Water Agency's sphere of influence.***

***LAFCO staff recommends that the Commission amend the "Rules and Regulations Affecting Special Districts" under the Water function by expanding the service description to include Replenishment, Conservation, and Basin Management for the Mojave Water Agency as follows (changes are identified in bold italic):***

DISTRICT	FUNCTIONS	SERVICES
Mojave Water Agency	Water	Acquisition, Wholesale, Retail, <b><i>Replenishment, Conservation, Basin Management</i></b>
	Sewer	Regional treatment, Wastewater reclamation

### SPHERE OF INFLUENCE

The following discusses MWA's existing sphere areas that extend beyond its boundaries and sphere area that is coterminous with its boundaries in the Morongo Basin area.

#### Existing Sphere Areas

The Mojave Water Agency is located in the north desert and east desert regions of the County of San Bernardino with the vast majority of the territory in the north desert region. The territory encompasses approximately 4,872 square miles and includes the vast majority of the north desert including the Cities of Adelanto, Barstow, Hesperia, and Victorville and the Town of Apple Valley and includes the south desert communities of Landers, Flamingo Heights, Joshua Tree, Pioneertown, and the Town of Yucca Valley. A map of MWA's boundaries and its sphere of influence is included as Attachment #1 and is shown on page 7 of this report. LAFCO staff is not proposing amendment of these sphere areas and the MWA board of directors has requested maintenance of its sphere.

The sphere for MWA was established in 1973 in conjunction with the establishment of the spheres of influence for the Crestline-Lake Arrowhead Water Agency (CLAWA), San Bernardino Valley Municipal Water District, and Chino Basin Municipal Water District (now known as Inland Empire Utilities Agency). At that time, LAFCO staff requested that the agencies meet to determine their general areas of service and propose sphere boundaries. These agencies, including MWA, agreed to the proposed sphere boundaries based on hydrological divides.

The westernmost sphere area is bordered by the Los Angeles County line on the west, the Agency's boundary on the north, and the San Bernardino Valley Municipal Water District sphere on the east and south. This area includes the community of Wrightwood and is served water by the Golden State Water Company. Golden State staff has indicated to LAFCO staff that the area has experienced water supply and delivery challenges in the past and challenges are anticipated in the future. In the past these challenges have been met through acquisition of water from agencies within the existing boundaries of MWA. Removal of this area from the MWA sphere would create a pocket within the County of an area bordered by the County line on one side and surrounded by the boundary or sphere of a State Water Contractor on three sides. Anticipating water delivery challenges to occur in the future, maintenance of this area within the MWA sphere would keep this area within a sphere of influence of a State Water Project provider.

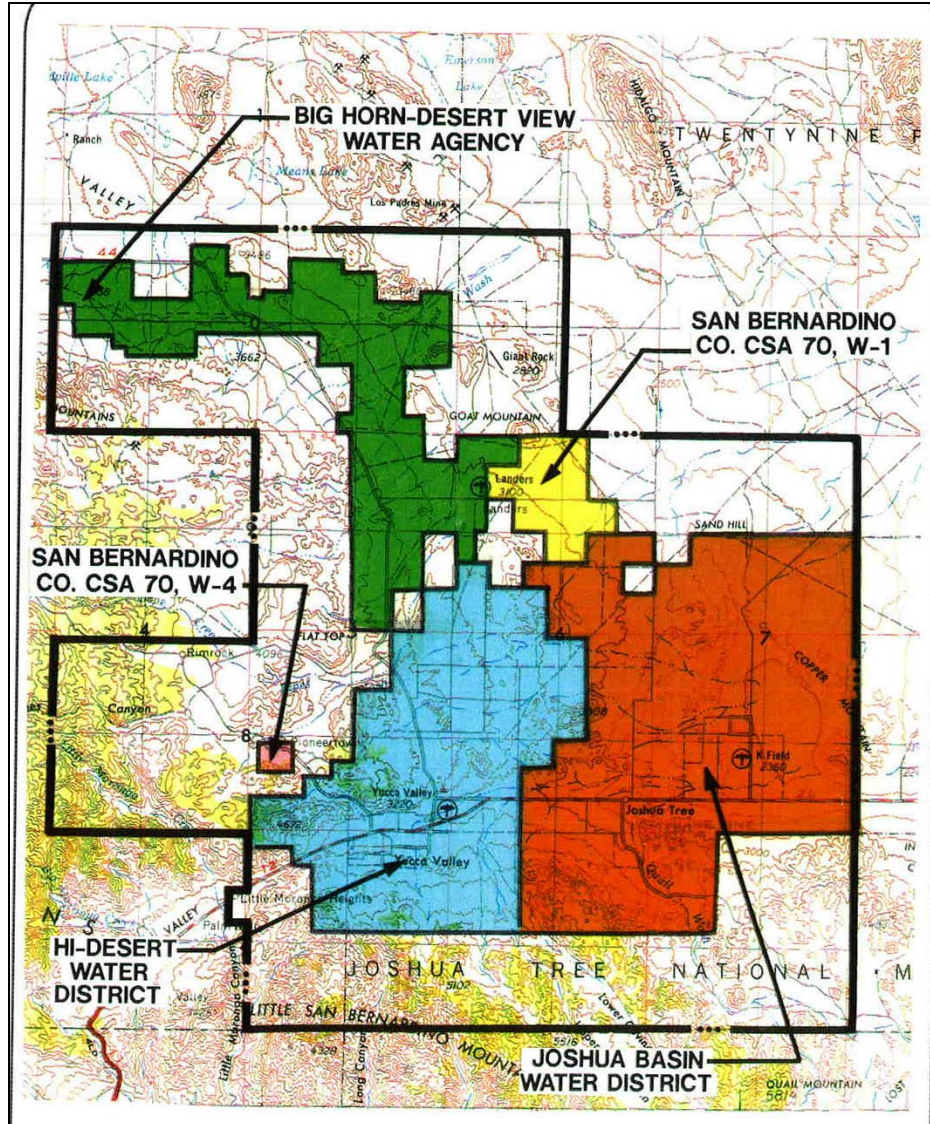
The center sphere area was established due to hydrologic divides generally to its southern boundary. Removal of this area from the MWA sphere would create a pocket within the County of an area wholly surrounded by the boundary or sphere of a State Water Contractor.

For the easternmost sphere area, the Commission extended the sphere beyond MWA's southern boundary to meet the entire northern boundary or sphere of the Crestline-Lake Arrowhead Water Agency and to generally follow the hydrologic divides and the National Forest boundary. This sphere area includes Grass Valley Creek, an upstream tributary of the Mojave River. In 1995, LAFCO approved the dissolution of the Mojave River County Water District (LAFCO 2795), and as a condition of the dissolution MWA succeeded to the responsibilities of the District. Specifically, MWA intervened in the lawsuit *Las Flores Ranch Corporation v. Lake Arrowhead Development Company*. By intervening in the case, MWA "shall monitor compliance with the Judgment". The monitoring effort involves determination of minimum water flows through a metered facility from Grass Valley Lake into Grass Valley Creek, as prescribed by the Judgment. Removal of this area from MWA's sphere would restrict the future ability of MWA to actively perform services in this area if deemed necessary.

The letter from MWA requesting maintenance of its sphere is included as Attachment #5.

Of concern to LAFCO staff is the lack of accessibility to State Water Project water for those residents in areas in the Morongo Basin portion of MWA not within the territory of a water retail provider. This area is identified in the map below as Improvement District M of the Agency.

**Figure 7. Improvement District M of Mojave Water Agency**



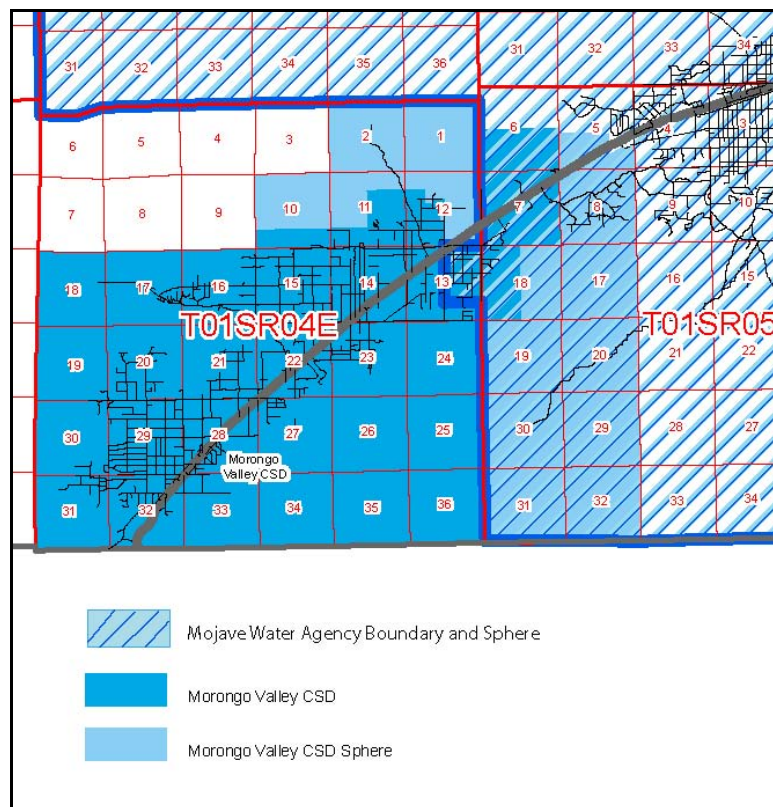
As outlined in the history of the MWA, the area was annexed to MWA in 1965. The original application conformed to judicial boundaries. However during processing of the proposal the communities of Morongo Valley and Twentynine Palms, as defined at that time, were not excluded at their request. The sphere establishment for the Agency in 1973 included only the existing territory of MWA in this area. In 1990, voters within the Morongo Basin portion of MWA (including the defined communities of Pioneertown, Landers, Joshua Tree, and Homestead Valley and the Town of Yucca Valley among others) approved two ballot measures:

- Formation of Improvement District M (conforming to MWA boundaries) which defined financing responsibilities for landowners within the areas for repayment of their fair share of the extension of the pipeline (defined as 75% of the bond cost); and,
- A bond measure to fund a pipeline to deliver water to recharge basins located in Yucca Valley.

The result is that landowners within MWA territory in the Morongo Basin that are not a part of a retail water provider are subject to all the MWA assessment as well as the Improvement District M assessments, yet have no governmental mechanism to receive the water service.

Of particular concern is the southwestern most corner of Improvement Zone M, where approximately 11.3 square miles of MWA's boundary, sphere, and Improvement District M extends into the Morongo Valley Community Services District's territory and sphere (as shown below). This area is comprised of sections 7, 8, 17 - 20, and 29 - 32 and portions of sections 5 and 6 of T01SR05E and a portion of section 13 of T01SR04E.

**Figure 8. Southwest Corner of Improvement Zone M**



In addressing this circumstance, staff wants to make the Commission aware that delivery of State Water Project water to this area would require the formation of a new entity such as an

Improvement District to the Morongo Valley CSD or an Improvement Zone to County Service Area 70.

### **Authorized Functions**

When updating a sphere of influence for a special district, the Commission is required to establish the nature, location, and extent of any functions or classes of services provided by the district (Government Code §56425(i)). In 1976, MWA responded to LAFCO's request to list the Agency's active functions and services, and the Agency responded with the functions and services below. Since that time there has been no update to the Agency's authorized functions.

<u>FUNCTIONS</u>	<u>SERVICES</u>
Water	Acquisition, Wholesale, Retail
Sewer	Regional treatment, Wastewater reclamation

#### Water

MWA is currently authorized the function of Water with service descriptions of Acquisition, Wholesale, and Retail. In addition to these service descriptions, the Agency, as a State Water Project contractor and Watermaster, acquires State Water Project water, manages the groundwater basin, replenishes the basin, and engages in water conservation efforts. LAFCO staff and the MWA board of directors recommend that the Commission expand the service description to include Replenishment, Conservation, and Basin Management to more clearly define the service provided under this function. The letter from MWA requesting modification to the service descriptions to its Water function is included as Attachment #5.

#### Sewer

MWA is currently authorized the function of Sewer with service descriptions of Regional Treatment and Wastewater Reclamation. As noted earlier in this report, MWA was the entity responsible for the design of the Victor Valley Wastewater Reclamation Authority wastewater treatment plant in the mid 1970s. In 1977, VVWRA assumed the assets and authority for the plant and MWA divested itself from the project. Since that time, MWA has not performed the function of Sewer within its boundaries or sphere.

The MWA board of directors' requests maintenance of the sewer function since MWA is a regional entity and if a situation arises needing regional sewer, there is the possibility that the Agency may play a role in its establishment. The letter from MWA requesting maintenance of its sewer function is included as Attachment #5.

### **FACTORS OF CONSIDERATION:**

In order for LAFCO to prepare a sphere of influence update, MWA responded to LAFCO's request for information (included as a part of Attachment #3). Staff's responses to the

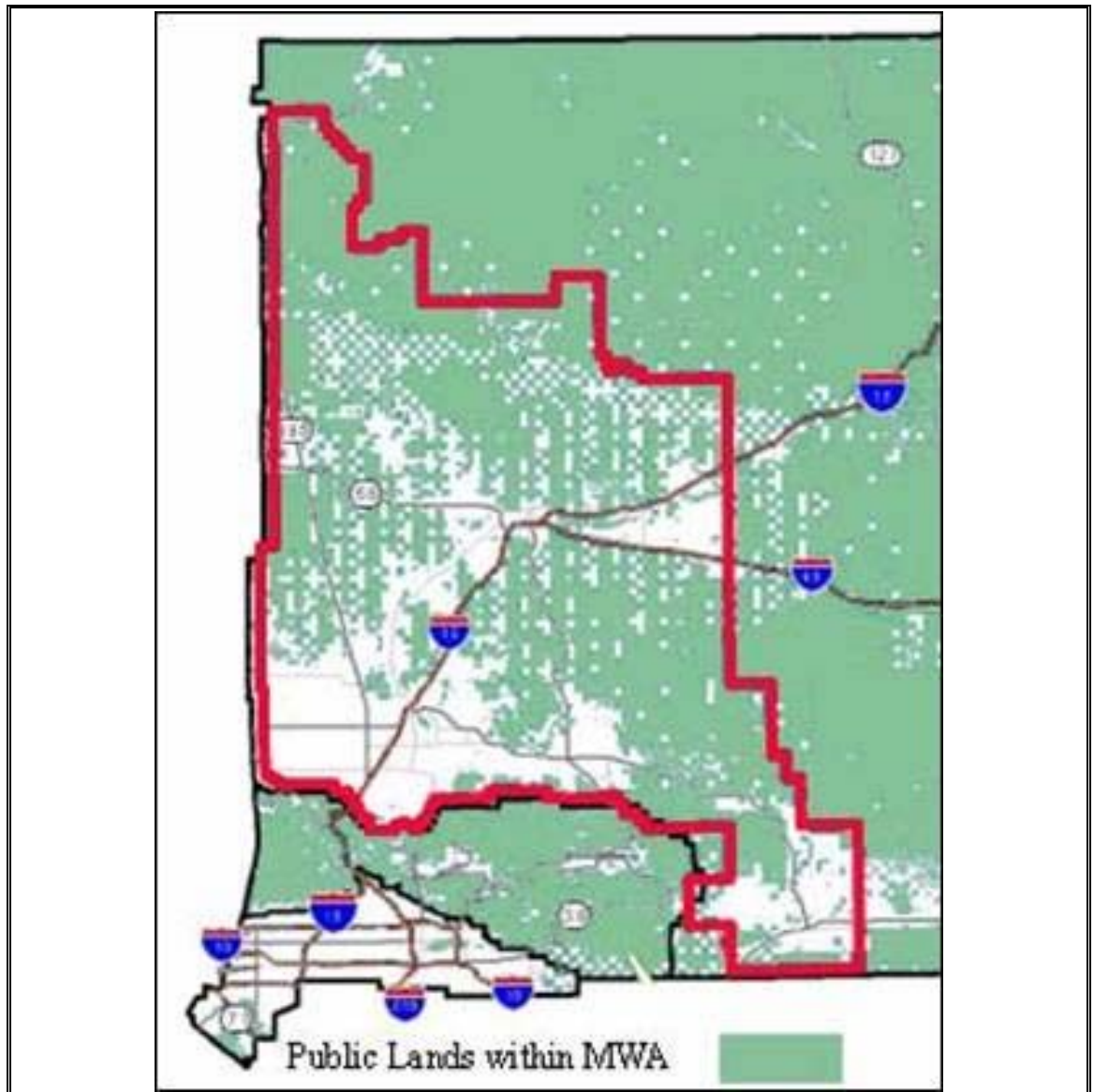


mandatory factors of consideration for a sphere of influence review (as required by Government Code Section 56425) are identified as follows:

**PRESENT AND PLANNED LAND USES**

Present land uses within the MWA sphere of influence include the full range of densities from high density to non-developable land. Land uses also include the full range including open space, agricultural, residential, recreational, and industrial. There are Williamson Act Agricultural contract lands within the Agency, with many in the Lucerne Valley, Hinkley, and Helendale areas. As shown in the figure and chart below, the majority of the jurisdictional/landownership within the Agency is public lands.

**Figure 9. Public Lands within MWA**



**Table 3. Jurisdictional/Land Ownership Breakdown**

<b>Agency</b>	<b>Square Miles</b>	<b>Percentage</b>
<b>Bureau of Land Management</b>	2,372	48.7%
<b>Local Government</b>	1	0.0%
<b>Military</b>	250	5.1%
<b>National Park Service</b>	57	1.2%
<b>State</b>	60	1.2%
<b>US Forest Service</b>	4	0.1%
<b>Private</b>	2,128	43.7%
<b>TOTAL AREA</b>	<b>4,872</b>	<b>100.0%</b>

source: County of San Bernardino Information Services Department

As development continues, lands with the potential for agricultural use near population centers and freeway and transit corridors will continue to decrease and municipal land use will increase. Planned uses of the communities along the Mojave River and other areas include tract and other developments. Some of these projects include general plan amendments that will increase the densities of the land.

In addition to the projected population increases, new industrial, commercial, and recreational activities will require water. Referenced in the FY 07-08 budget for the Agency, the Southern California Association of Governments estimates by 2022 there will be more than 1,800 new jobs generated by over 100 companies coming to the Southern California Logistics Airport.

**PRESENT AND PROBABLE NEED FOR PUBLIC FACILITIES AND SERVICES**

The enabling act of the Agency states that its purpose is to ensure that sufficient water may be available for any present or future beneficial use within its territory. The Mojave River and Warren Basin adjudications require supplemental water to be delivered to the region to balance the waterbasins due to the overdraft. As a State Water Project contractor and Watermaster of the Mojave River basin, MWA imports water to replenish the waterbasins and carries out the obligations of the adjudications.

Even with the decrease in imported water for 2008 (estimated availability 26,530 acre-feet in 2008), MWA has received requests for 58,000 acre-feet from water purveyors, more than two times the estimated allocation for the year. According to MWA, this will be the first year that it will be unable to meet all requests, and some water purveyors will receive less than requested. The reductions in the supply of water are due to lower than normal snowpack and environmental litigation and judgments on the State Water Project conveyance system, primarily the Delta. These reductions are not directly a local facility problem, but are a long-term supply issue for the region. To help meet the existing demands, MWA will utilize about 5,000 feet of its 100,000 acre-feet of stored water.

## **PRESENT CAPACITY OF PUBLIC FACILITIES AND ADEQUACY OF PUBLIC SERVICES**

Being a water wholesaler, not a retail agency, MWA does not have traditional facilities. It has two pipelines that deliver water to communities removed from the California Aqueduct. The 71 mile Morongo Basin Pipeline serves the communities of Johnson Valley, Joshua Tree, Landers, and the Town of Yucca Valley. The pipeline delivers water from a five million gallon reservoir in Landers to percolation ponds in the Yucca Valley area that act as natural filtration systems where the water seeps back into the ground to recharge the aquifer. The 72 mile Mojave River Pipeline can supply up to 45,000 acre-feet of water each year to the Mojave River Basin where it percolates into groundwater recharge basins at Hodge, Lenwood, Daggett, and Newberry Springs. It serves the communities of Barstow, Daggett, Hinkley, Hodge, Lenwood, Minneola, Newberry Springs, and Yermo.

The Agency does not own the waterbasins within its boundaries, but it has the authority to store water in basins. The storage capacity of the waterbasins is more than adequate to bank water for future use. The Mojave River basin alone has an estimated storage capacity of 2 million acre-feet<sup>20</sup>. The intent of the Agency is to store up to three years demand for use during periods of drought or an interruption in deliveries through the State Water Project.

There are water supply challenges in the region. Due to the overdraft, two basins are adjudicated and this requires the purchase of imported State Water Project water. MWA is entitled to 75,800 acre-feet of State Water Project Water each year, but the amount eligible for purchase is dependent on the annual allocated percentage as determined by the Department of Water Resources. For 2008, water contractors can purchase up to 35% of their allotment. For MWA, this equates to 26,530 acre-feet for the year, which falls short of demand.

## **SOCIAL AND ECONOMIC COMMUNITIES OF INTEREST**

The purpose as identified in the enabling legislation is that MWA is to ensure that sufficient water will be available for any present or future beneficial use within its territory. Therefore, as a regional agency it is difficult to identify a social or economic community of interest. Since the efforts of this agency are to provide for the adjudicated basin, the Mojave River and the Warren Basin adjudications point to a regional economic community of interest.

## **ADDITIONAL DETERMINATIONS:**

- The Commission's Environmental Consultant, Tom Dodson and Associates, has determined that the municipal service review and sphere of influence review are statutorily exempt from environmental review. The basis for this determination is that LAFCO 3033 does not have the potential to cause a significant effect on the environment, and therefore does not constitute a project as defined by CEQA. Mr. Dodson's response is included as Attachment #6.
- Legal advertisement of the Commission's consideration has been provided through publication in *The Sun*, *Desert Dispatch*, *Daily Press*, and *Hi-Desert Star* as required by law.

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<sup>20</sup> United States Geological Survey as cited in Mojave Water Agency 2004 Regional Water Management Plan.

- As required by State law, individual notification was provided to affected and interested agencies, County departments, and those agencies and individuals requesting mailed notice.
- Comments from landowners/registered voters and any affected agency will need to be reviewed and considered by the Commission in making its determinations.

**CONCLUSION:**

The Mojave Water Agency is a State Water Project contractor and imports water to replenish basins within its boundaries. In addition, it is required to meet the obligations of the Mojave River Basin and Warren Valley judgments. Due to anticipated increase in demand for water through 2025, MWA will need to consider additional projects and water strategies to recharge the waterbasins to protect the quantity and quality of the water for all types of uses. According to the 2005 Urban Water Management Plan, if such measures and projects are not implemented, the presiding judge for the Mojave Basin Judgment could require mandatory reductions in production. To meet the future water demands within its service area, the Agency plans to purchase more supplemental water in the short and long-run and plans to store the water in the groundwater basins.

Staff recommends affirmation of MWA's sphere of influence and the modification of service descriptions under the Water function to better reflect the Agency's activities.

KRM/MT

Attachments:

1. Map of the Mojave Water Agency and its Sphere
2. Additional Maps: State Water Project Contractors, Facilities, Adjudication Boundary, and Regional Recharge Recovery Program (R-Cubed)
3. Municipal Service Review and Sphere of Influence Review Information Including Financial Information and 2005 Urban Water Management Plan Update
4. Minutes from LAFCO Special Study in 1977 Regarding the Mojave Water Agency
5. Letter from Mojave Water Agency Dated June 19, 2008
6. Response from the Commission's Environmental Consultant, Tom Dodson and Associates
7. Draft Resolution No. 3001