Water Supply Assessment
County of San Bernardino
Land Use Services Department

Nursery Products LLC
Hawes Composting Facility
Hinkley, California

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Executive Summary

This Water Supply Assessment (WSA), Supplemental Environmental Impact Report (SEIR), has been prepared to assist the County of San Bernardino Land Use Services Department in planning to satisfy the requirements of Senate Bill 610 (SB 610). The stated intent of SB 610 is to strengthen the process by which local agencies determine the adequacy, sufficiency and quality of current and future water supplies to meet current and future demands.

SB 610 amended Water Code section 10910 and 10912 to create a direct relationship between water supply and land use. In general terms, prior to constructing developments with more than 500 homes *or the equivalent*, SB 610 requires a showing that there is an adequate 20-year water supply. The County of San Bernardino Land Use Services Department has determined the Hawes Compositing Facility meets with the intent of Water Code section 10910 and 10912.

Under SB 610, when groundwater is a source of supply, specific information relating to the groundwater basin must be incorporated in the WSA. The Hawes Composting Facility is located within the Mojave Groundwater Basin.

SB 610 was enacted in 2001 to improve the linkage between water and land use planning. It was intended to ensure greater communication between water providers and local planning agencies. Accordingly, SB 610 aims to ensure that land use decisions for certain large development projects are fully informed as to whether sufficient water supplies are available to serve the project. The Hawes Compositing Facility will produce groundwater for overlying use from the Mojave Groundwater Basin.

The SB 610 process requires the interaction and cooperation of the *water supplier* and the California Environmental Quality Act (CEQA) lead agency. Insomuch as the Hawes Composting facility will produce water supply from the Mojave Groundwater Basin at levels exempt from the requirement, to own water rights, or to pay replenishment assessments, for the purposes of this WSA a water supplier is not required. The California Superior Court has, by order, implemented a physical solution under the terms of a recorded Judgment discussed in detail in this WSA. The court has order the Mojave Water Agency (MWA) to implement the physical solution. The MWA is one of 29 State Water Contractors with access to the State Water Project (SWP). It was created by voters in 1960 and is governed by a seven-member elected Board of Directors. The Agency, in cooperation with other water districts is responsible for managing the region's water resources to ensure a sustainable supply of water for present and future use. This managed water supply sustainability is projected exceed one hundred years.

When a CEQA lead agency (San Bernardino County) determines a project meets one of the size or demand thresholds triggering SB 610, it requests that the applicant prepare a WSA must be prepared. MWA has prepared several documents concerning local water supplies, all of which have been thoroughly reviewed, referenced and incorporated herein.

The lead agency must include the WSA in the CEQA document and may also include an evaluation of the WSA. Finally, the CEQA lead agency—not the water supplier — must independently determine, “based on the entire record,” whether adequate water supplies exist to serve the project. That is, regardless of the conclusions in the WSA, the CEQA lead agency makes the final decision regarding whether an adequate water supply is available to serve the project.

At its heart, a WSA is an informational document relied on by the CEQA lead agency in deciding whether to approve projects. In this way, a WSA is similar to other informational documents used to support the analysis of impacts in an EIR, such as traffic or biological resource studies. Like such studies, other than its role in the CEQA process and the ultimate project approval, a WSA effects no change.

This WSA:

1. Provides information on Hawes Composting Facility’s water supply consistent with Water Code Sections 10620 et. seq. (the Urban Water Management Act) and 10910 et. seq. (Water Supply Planning to Support Existing and Planned Future Uses);

2. Provides data to make the sufficiency findings required by the CEQA.

3. Identifies water supply mitigation measures required by a potential proposed project and analyses the cumulative impacts of said usage and mitigation measures.

The County of San Bernardino Land Use Services Department commissioned the preparation of this WSA, in its role as the lead agency. The County of San Bernardino Land Use Services Department may include parts of this study in the environmental documents prepared for designated projects pursuant to CEQA.

By California Superior Court Order, the Hawes Composting Facility is permitted to produce up to 3,258,290 gallons per year (GPY) of water on SE ¼ Section 36 TP 10N R 5W EX MNL Reservation of Record 160 acres; APN: 0492-021-24-0000. The proposed Project will produce 360,000 gallons per year, significantly below the legally allowable levels exempt from the requirement to hold water rights, or to pay replenishment assessments.

The Court Appointed Basin Engineer has determined there is more than sufficient aquifer capacity, at approximately 300’ below the ground elevation at the Hawes Composting Facility, to produce good quality water, capable of provided a sustainable water supply for over one hundred years, free of a replenishment water assessment imposed by the Mojave Basin Watermaster.

If, though not anticipated, the Hawes Composting Facility exceeds 3,258,290 GPY, it can intervene into the Mojave Basin Judgment as a producer of groundwater in excess of 3,258,290 GPY, and purchase a water right equal to any total production shortfall.

List of Abbreviations

AF	Acre-Foot or -Feet (i.e., 1 acre x 1 foot deep)
AFD	Acre-Foot or -Feet per Day
AFY	Acre-Foot or -Feet per Year
BAP	Base Annual Production
ccf	One Hundred Cubic Feet
CEQA	California Environmental Quality Act
DSS	Decision Support System
DU	Dwelling Unit
DWR	California Department of Water Resources
EDU	Equivalent Dwelling Unit
EIR	Environmental Impact Report
FPA	Free Production Allowance
ft^2	Square Feet
FY	Fiscal Year
gpm	Gallons Per Minute
gpd	Gallons Per Day
GIS	Geographic Information Systems
GPS	Global Positioning System
GPY	Gallons Per Year
IWSAP	Interim Water Shortage Allocation Plan
mgd	Million Gallons Per Day
mg/L	Milligrams per Liter
MWA	Mojave Water Agency
psi	Pounds Per Square Inch
PWS	Public Water System
SB	Senate Bill
SWP	State Water Project
TDS	Total Dissolved Solids
UWMP	Urban Water Management Plan
WSIP	Water System Improvement Program

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1.0 Introduction

The County of San Bernardino Land Use Services Department has commissioned the preparation of this WSA, in its role as lead agency under the CEQA for the proposed development of the Hawes Composting Facility in the unincorporated area of San Bernardino County referred to as Hinkley, California.

1.1 Background Information

The Hawes Composting Facility Project is proposed as a biosolids and green waste material composting facility. The Project would be located on an 80-acre portion of a 160-acre parcel located in the unincorporated Hinkley area. Upon reaching full operating capacity, the facility would receive a daily average of 1,100 tons per day (400,000 tons per year) of biosolids and green waste materials from which would be produced compost for agriculture and landscaping applications. The facility is expected to operate for thirty years.

This WSA incorporates updated information from onsite inspections, interviews with key personnel at the MWA, Mojave Watermaster and searches of records and data. The intent of the WSA is to provide the County of San Bernardino Land Use Services Department with a thorough understanding of the water quantity and quality which is available for use at the Hawes Composting Facility.

2.0 Property Description

2.1 Legal Description

SE ¼ Section 36 TP 10N R 5W EX MNL Reservation of Record 160 acres.

APN: 0492-021-24-0000

2.2 Proposed Project Operation

The Hawes Composting Facility Project will use a combination of windrow and modified static pile composting methodologies. With the windrow method, the active composting stage generally can last up to nine weeks for biosolids composting, though it is expected to be completed quicker in a hot, ***dry***, arid environment. The windrow composting process includes aeration through mechanical processes on a periodic basis. This is referred to as turning the windrow, and is done by using heavy equipment to lift and turn the windrow inside out.

2.3 Proposed Water System Description

The Hawes Composting Facility Project will produce all of its water from an onsite groundwater well pump that will pump 15 gpm and will supply a 30,000 gallon storage tank.

Approximately 1,000 gpd of water will be consumptively used for dust suppression and control, equipment washing and available for fire protection.

3.0 WATER SOURCE(S)

The water sources available to the Mojave Basin Area are numerous and managed by a myriad of complex overlapping jurisdictions. The active management of the water resource will facilitate safe yield well over the next one hundred years. This section is presented in order to present the reader with a basic background understand of this complexity and demonstrate the region is well managed and significant water resources are readily available for the proposed Project.

3.1 Groundwater Source(s)

3.1.1 Mojave Groundwater Basin

The adjudicated boundary of the Mojave Basin Area encompasses about 3,400 square miles of San Bernardino County, California. In general the adjudicated area is bounded by the San Bernardino and San Gabriel Mountains to the south, Afton Canyon to the northeast, just beyond Lucerne Valley in the east and the Antelope Valley to the west at the San Bernardino Los Angeles County line. For purposes of administration of the Judgment, the Basin is divided into five separate hydrologic Subareas.

The five Subareas are named: Este (East Basin), Oeste (West Basin), Alto (Upper Basin), Centro (Middle Basin) and Baja (Lower Basin). The Hawes Composting Facility is located within the Centro Sub Basin.

3.1.2 City of Barstow et al, v. City of Adelanto et al, Riverside County Superior Court Case No. 208568

The Adjudication of the Mojave Basin was initiated by a lawsuit filed May 30, 1990 by the City of Barstow and Southern California Water Company. The complaint alleged that the cumulative increase in water use in the upper part of the Mojave Basin caused or threatened to cause a reduction in the natural flow of water to the central part of the Mojave Basin (the area in which the City of Barstow is physiccally located). The complaint requested that an average annual flow of 30,000 AF of surface water accrue to the area where the City of Barstow is located. The complaint also included a request for a writ of mandate to require the Mojave Water Agency (MWA) to act pursuant to its statutory authority to obtain and provide supplemental water for use within the Mojave Basin Area.

A cross-complaint was filed by the Mojave Water Agency approximately one year after the initial lawsuit. The cross-complaint requested that the Court declare the native natural water supply of the Mojave Basin inadequate to meet the demands of cumulative water production within the basin, as well as determine individual water production rights of producers of whatever nature throughout the entire Mojave Basin Area.

This action included not only those water producers upstream of the City of Barstow, but also those water producers downstream of the City of Barstow.

A cross-complaint was also filed by Arc Las Flores Limited Partnership which requested that their appropriative, overlying and riparian rights be determined to be prior and paramount to any rights of the plaintiffs and any other water producers within the Basin.

Due to the magnitude and complexity of the case, the numerous water producers named as parties to the lawsuit agreed to conduct good faith negotiations. Discussion proceeded beginning in early 1992, with the objective of devising an equitable solution to the Basin Area's water supply problems and avoiding extensive and expensive litigation. During the next 18 months a committee of attorneys, engineers, and other individuals that were generally representative of all types of producers and all Subareas of the Basin Area conducted intense negotiations that resulted in a proposed settlement in the form of a Stipulated Judgment. The Stipulated Judgment set forth a proposed physical solution to the overdraft occurring in the Mojave Basin Area.

The proposed Stipulated Judgment also created a class of minimal producers (that is, water producers using 10 acre-feet of water per year or less) who were dismissed from the case. It directed that the MWA create and administrate a procedure, acceptable to the Court, by which minimal producers could participate fairly in the physical solution.

Over 75 percent of the parties agreed to the Stipulated Judgment which was entered by the Court on September 22, 1993, binding all stipulating parties. After entry of the Stipulated Judgment, additional parties agreed to its terms. These parties represented over 80 percent of the verified water production in the Basin. A trial of the claims of the non-stipulating parties began on February 6, 1995 and was completed on March 21, 1995. Final Judgment was entered on January 10, 1996 adopting the physical solution set forth in the Stipulated Judgment.

Nine non-stipulating parties referred to as the "Cardozo Group" chose to appeal the Judgment entered by the Superior Court. The Appellate Court issued a Tentative Opinion in April 1998 and received oral argument from both the stipulating and non-stipulating parties in May 1998. The Appellate Court issued its final opinion on June 1, 1998. The final opinion affirmed in part and reversed in part the Superior Court Judgment by excluding specific non-stipulating parties (the Cardozo Group) from the Superior Court Judgment and at the same time affirming it as to the stipulating parties. The decision also remanded the issue of the amount of transferable production rights for Jess Ranch Water Company back to the Superior Court for a new determination.

The MWA board voted in June 1998 to seek California Supreme Court Review of the Appellate Court's decision. A petition for review was filed with the Supreme Court in July 1998 and the Supreme Court granted review of the case on August 26, 1998. Oral arguments were heard by the Supreme Court on June 5, 2000, and the Judge's opinion was issued on August 21, 2000.

The Supreme Court's opinion affirmed in part and reversed in part the June 1, 1998 opinion of the Fourth District Court of Appeal. The Supreme Court affirmed the Court of Appeal's decision "in all respects," except it reversed the Court of Appeal decision as to the Jess Ranch Water Company. The Court of Appeal had affirmed the Judgment as to the stipulating parties but had reversed it as to the Cardozo Appellants and as to Jess Ranch Water Company. The Court of Appeal opinion essentially excluded the Cardozo Appellants from the Stipulated Judgment, including the Judgment's assessment provisions. Further, the Court of Appeal granted Judgment to the Cardozo Appellants in the form of injunctive relief to protect their riparian and overlying water rights to the current and prospective reasonable and beneficial need for water on their respective properties.

Effective August 6, 2002, the Cardozo appellants and Mojave Water Agency, on behalf of the stipulating parties, reached agreement regarding the Cardozo appellants' water rights. Consistent with the ruling from the California Supreme Court in this case, Cardozo Group's right to pump water from the ground underneath their respective lands for the current and prospective reasonable and beneficial need for water on their respective properties was recognized by the Stipulating parties. Further, to settle all outstanding issues in connection with the Cardozo Group water rights, MWA and Cardozo agreed that "if the parties who stipulated to the Judgment are in full compliance with the Judgment there shall be a rebuttable presumption that the Cardozo Appellants' water rights are not being interfered with." In addition, all remaining water rights issues related to Jess Ranch Water Company and the Stipulating Parties were settled on August 16, 2002. Stipulation for Intervention and Entry of Judgment for Jess Ranch Water Company was filed in Riverside County Superior Court on August 23, 2002.

For purposes of defining and implementing a physical solution, the Mojave Basin Area consists of five distinct but hydrologically interrelated "Subareas". Each Subarea was found to be in overdraft to some extent due to the use of water by all of the producers in that Subarea. In addition, some Subareas were found to historically have received at least a part of their natural water supply as water flowing to them from upstream Subareas either on the surface or as subsurface flow. To maintain that historical relationship, the average annual obligation of any Subarea to another is set equal to the estimated average annual natural flow (excluding storm flow) between the Subareas over the 60 year period 1930-31 through 1989-90.

If the Subarea obligation is not met, producers of water in the upstream Subarea must provide Makeup Water to the downstream Subarea. To maintain proper water balances within each Subarea, the Judgment establishes a decreasing Free Production Allowance (FPA) in each Subarea during the first five years, and provides for the Court to review and adjust, as appropriate, the FPA for each Subarea annually thereafter.

The FPA is allocated among the Producers in the Subarea based on each Producer's percentage share of the FPA. All water produced in excess of any Producer's share of the FPA must be replaced by the Producer, either by payment to the Watermaster of funds sufficient to purchase Replacement Water, or by transfer of unused FPA from another Producer. Each Producer's percentage share of FPA in a Subarea was determined by first verifying the maximum annual water production (termed Base Annual Production or "BAP") for each Producer during the five year, 1986-90, Base Period and then calculating each Producer's percentage share of the total of all such BAP in the Subarea. All such percentage allocations are of equal priority.

All Producers in each Subarea are allowed to produce as much water as they need annually to meet their requirements, subject to compliance with the Physical Solution set forth in the Judgment. An underlying assumption of the Judgment is that sufficient water will be made available to meet the needs of the Basin in the future from a combination of natural supply, imported water, water conservation, water reuse and transfers of FPA among Producers. Special provisions for environmental protection are included in the Judgment, including the creation of a Biological Resources Trust Fund. The funds are provided to secure a water supply in the event that groundwater levels within specific areas are not maintained sufficient to support existing riparian vegetation.

3.1.3 Centro Sub Basin

The Hawes Composting Facility is located within the Centro Sub Basin.

3.2 Surface Water Source(s)

3.2.1 Mojave River

The Spanish were the first Europeans to explore the Mojave River, and quickly made claim to the vast desert area. Although the Spanish were in control in California, this did not stop soldiers of fortune like Kit Carson and Ewing Young who came to the area in 1820 in search of treasures from Southern California.

The name the river bears today was coined by United States government explorer John C. Fremont, who was guided through the desert by Carson in 1844. It was during that expedition that Fremont became aware of the waterway from the Mohave Indians who lived near Needles. Fremont decided to name the river after the Indians.

A State Division of Water Resources publication known as Bulletin 47 or "The Mojave River Investigation" reported that the Mojave River was a stream which received its principal water supply from 217 square miles of mountain headwaters from the northern slope of the San Bernardino Mountains. The total area of influence within the Mojave River measures 333 square miles and the riverbed was dry six to eight months during the year, according to Bulletin 47. The publication reported that the basin's water table along the stream was high enough to support salt grass, cottonwoods and tulles.

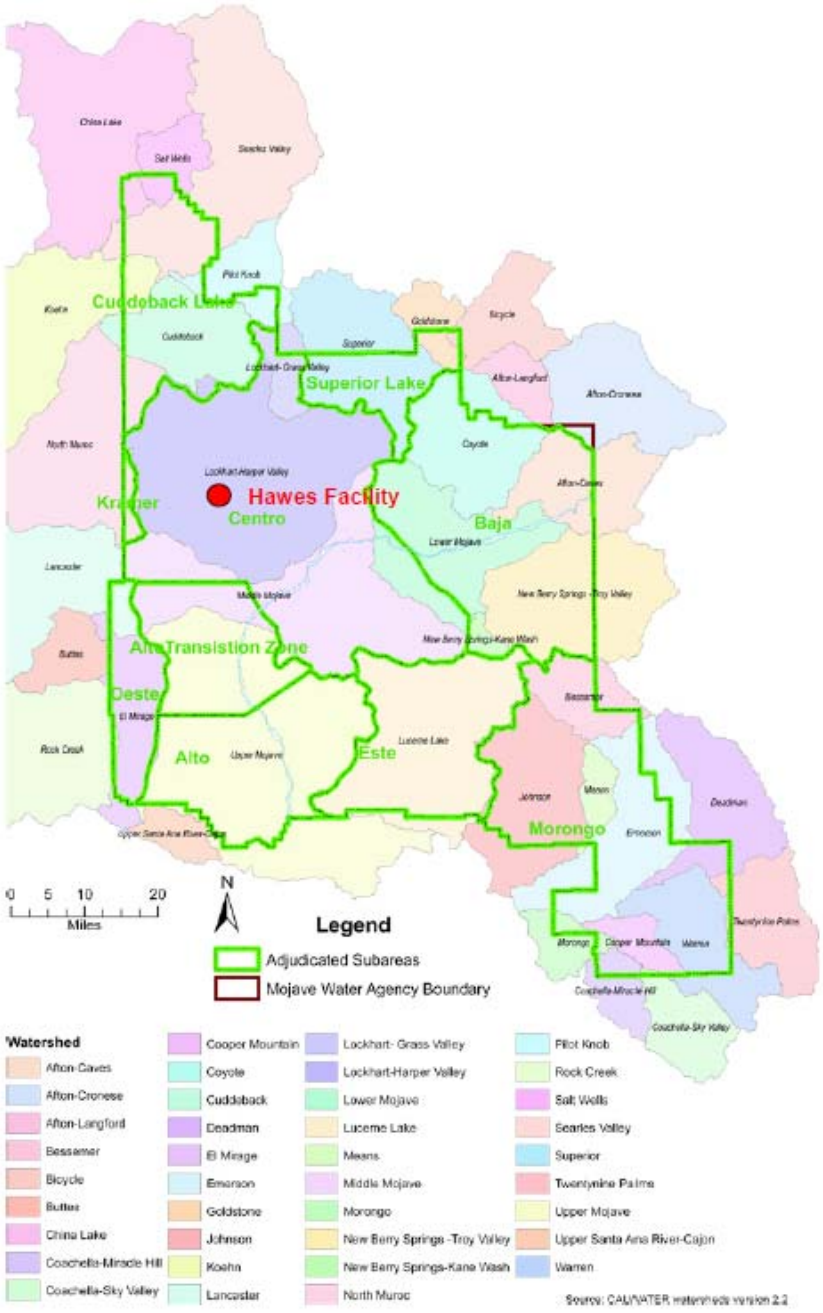
Early settlers to the Victor Valley like Judge Robert Widney realized that water played a crucial role to the development of the region. In 1885, Judge Widney purchased what would become a part of Hesperia. Months later the Hesperia Land and Water Company was formed as Widney filed an application for Mojave River water rights.

3.2.2 Mojave Watershed

The Mojave River watershed is approximately 1,400 square miles and extends from the San Bernardino and the San Gabriel Mountains in the south to north of Harper and Coyote Lakes (dry). The groundwater basin is bordered on the west by Antelope Valley and shares its southeastern boundary with the Morongo groundwater basin.

The primary source of groundwater recharge in the Mojave River groundwater basin is intermittent streamflow in the Mojave River, which usually occurs during January through March, and from sporadic releases of imported water from the California State Water Project (SWP).

The basin has received SWP water at the Rock Springs recharge site (near well 4N/3W-29E5) southeast of Hesperia since 1994, and has also received SWP water at the Hodge recharge site (near well 9N/3W-23D2) since 1999, at the Lenwood recharge site (near well 9N/3W-1R7) since 1999, at the Yermo/Daggett recharge site (near well 9N/1E-20B3) since 2003, and at the Newberry Springs recharge site (near well 9N/3E-22R7)(recharge sites map) since March 2006.



3.3 Imported Water Source(s)

3.3.1 Mojave Water Agency

The creation of the Mojave Water Agency was made possible through an enabling act prepared by attorney William J. Johnstone and the Mojave-Antelope Water Agency (MWA) Committee. Introduced by State Senator Stanford C. Shaw, the bill gave the people of the High Desert the right to determine water policies for the Mojave River.

In June of 1960, the people voted overwhelmingly to form the MWA, casting 2,860 votes in favor, with only 606 votes in opposition. Because the economy of the high desert in 1960 was based primarily on farming and ranching, a majority of the MWA's first board of directors were farmers and ranchers.

The passage of the Water Act authorized the state to issue nearly $2 billion in bonds. Property owners within the MWA service area were obligated to pay their fair share of the costs of constructing the California Aqueduct. To meet fiscal requirements from the 1960 state-wide bond, the MWA began assessing property owners a tax referred to as Debt One. In 1961 the Agency's Board of Directors consisted of eleven members, seven elected and four appointed. As the board wrestled with the new problems arising from the fledgling agency, several key questions and issues emerged.

In the late 1960's, recognizing worsening overdraft, Agency leaders first began to discuss a pipeline project to bring SWP water directly to the Mojave River Basin. Nearly 30 years later, design work began on the Mojave River Pipeline project, which would become a key element of the Agency's Regional Water Management Plan.

The project is designed to replenish natural groundwater supplies in the Mojave River Basin that are threatened by ongoing overdraft with SWP water. Once complete, the pipeline will run approximately 72 miles, and service the communities of Hodge, Lenwood, Barstow, Yermo, Dagget, Minneola and Newberry Springs.

Construction of the first section of the pipeline, the connection to the California Aqueduct at Adelanto, was begun in 1996. Once the final two segments (from Daggett/Yermo to the Daggett airport and then on to the Baja recharge basin site east of the Newberry/Calico Fault), are complete in 2005, the pipeline will carry up to 45,000 AF of water each year to the Mojave River basin. That is enough water to provide for at least 100,000 homes.

Construction of the critical pipeline has been financed through more than $48 million in state and federal grants and an additional $5 million loan from the State Department of Water Resources.

Following the annexation of the Morongo Basin in 1965, Agency leaders immediately set out planning a project to deliver SWP water to the area. The effort got crucial public support in 1990 when area residents overwhelmingly voted to approve a revenue tax bond to fund construction the pipeline.

Construction began in December 1992 and water began to flow through its approximately 71-mile length in January of 1995. The pipeline has continued to serve nearly 60,000 people and 455 square miles the High Desert, including the communities of Yucca Valley, Joshua Tree, Landers and Johnson Valley.

3.3.2 State Water Project

The MWA is entitled to 75,800 acre-feet of SWP water per year. This includes the addition of 25,000 acre-feet of entitlement that was purchased from the Berrenda-Mesa Water District in 1998. Imported SWP water has historically been supplied to the MWA through the Mojave Basin and Morongo Basin pipelines and releases to Silverwood Lake.

The SWP has delivered approximately 180,000 acre-feet of water to the MWA from 1972 through 2008 primarily for groundwater recharge.

3.3.3 1994 Monterrey Agreement

The 1994 Monterey Agreement, among the California Department of Water Resources and the State Water Project Contractors, “MWA”, to address fundamental contract issues by amending the long-term water supply contracts.

The Monterey Agreement produced a set of guidelines, known as the Monterey Principles, to amend the contracts, resolving some long-standing concerns of the SWP Contractors and provide more flexibility in administering the contracts. The principles and subsequent amendments were intended to significantly revise the complex SWP contracts, written more than 30 years prior to 1994.

MWA is signatory to the Monterey Agreement.

SWP Principles for the Monterey Agreement:

1. Water Allocations. Allocations are based on entitlement.

2. Water Allocations When Requests Exceed Available Supply. Initial agricultural deficiency is eliminated; Article 18(b) [permanent shortage provision] is eliminated.

3. Kern Water Bank. Kern Fan Element property is transferred to agricultural contractors; agricultural contractors permanently retire 45,000 acre feet of entitlement.

4. Permanent Sales of Entitlement. Agricultural contractors commit to allow up to 130,000 acre-feet of entitlement to be sold to urban contractors, on a willing buyer-willing seller basis.

5. Restructuring to Ensure Financial Integrity of the State Water Project. Contractor payments in excess of State Water Project financial obligations are returned to the contractors as follows: money for agricultural contractors is put into a trust fund for rate management; money for urban contractors is distributed directly to them.

6. Terminal Reservoirs Points of Delivery. The contractors paying for the terminal reservoirs gain increased control/management of those reservoirs.

7. Interruptible Water Service Program. Current categories of surplus, wet weather and Article 12(d) [shortage makeup provision] water are replaced by a single category of interruptible water, which is allocated based on entitlement and delivered at the melded State Water Project power rate.

8. Non-project Water Transport. Contractors have the right to transport non-project water in State Water Project facilities, at the melded State Water Project power rate.

9. Water Storage Outside Service Area. Rules for carryover in State Water Project conservation facilities are expanded; there are no limits on groundwater storage of State Water Project water outside a contractor's service area.

10. Turn-Back Water Pool Sales. An annual turn-back pool is created under which water allocated but not needed by a contractor may be sold to interested contractors and/or California Department of Water Resources at a percentage of the Delta Water Rate, or to non-contractors.

11. Conforming Contract Amendments. State Water Project contracts are to be amended to conform to these principles.

12. Project Improvements. California Department of Water Resources reaffirms its obligation to complete the State Water Project.

13. Integrated Package. The principles come as a package—a contractor can participate in all or none of the provisions.

14. No Precedent. If the amendments are not entered into, the parties agree not to use these principles in court proceedings.

3.3.4 Understanding SWP Allocation

Water Allocations and Water Service

In years of shortage, Agricultural Table A water will no longer be the first to be reduced. Water allocation will be based on all Table A amounts. "*Table A" refers to the California State Water Contract among the contracting parties; wherein, Table A lists the quantities of water subscribed by each agency.*

Surplus, wet weather, and Article 12(d) water will be replaced by a single category of Interruptible Water, allocated on the basis of Table A water amount and delivered at the same power rate as Table A water. The categories that make up the new class of Interruptible Water where previously special categories of water made available to Table A contractors, when available, on a pro rata basis at reduced rates. Interruptible Water is usually made available when all of the reservoirs are full, and the demand is seasonally reduced. When the water is available is most often purchased by agencies with groundwater recharge facilities and groundwater storage capacity. Transfers of Table A water and Land: An annual Table A of 45,000 acre-feet of agricultural water—4,330 acre-feet from Dudley Ridge Water

District and 40,670 acre-feet from Kern County Water Agency—was permanently transferred to California Department of Water Resources and retired. One hundred and thirty thousand acre-feet of agricultural Table A water became available for permanent sale to contractors for urban use. The Kern Fan Element of the Kern Water Bank will be transferred to the Kern County Water Agency.

Financial Restructuring

California Department of Water Resources developed financial programs with SWP funds to establish an operating reserve; a SWP facilities capital account to support certain otherwise unfunded planning studies; a water rate management program to reduce charges for all signing contractors when SWP cash flow permits; and a rate management trust fund for agricultural contractors.

Water Storage and Transportation

Contractors may transport non-project water in SWP facilities at the melded SWP power rate. Carryover rules for SWP surface conservation reservoirs will expand, allowing year-to-year storage by contractors when space is available. Within certain constraints, SWP water may be stored from year to year in non-SWP surface storage facilities that lie outside a contractor's service area for later use within the service area.

There will be no limits on groundwater storage of SWP water outside a contractor's service area for later use within the service area.

Contractors not storing in any one particular year can participate in an annual turn-back pool of allocated but unneeded water, which will be sold at a percentage of the Delta Water Rate to either the California Department of Water Resources or other contractors.

Contractors can also temporarily, for a period of years, reduce their Table A amount and receive rate reductions.

4.0 Water Resource Quantification

4.1 Production

The following table shows the projected monthly volumes of groundwater proposed to be produced for beneficial use by the facility's well during a twelve-month period:

Month	Gallons	AF
Jan	30,000	0.09
Feb	30,000	0.09
Mar	30,000	0.09
Apr	30,000	0.09
May	30,000	0.09
Jun	30,000	0.09
Jul	30,000	0.09
Aug	30,000	0.09
Sep	30,000	0.09
Oct	30,000	0.09
Nov	30,000	0.09
Dec	30,000	0.09
Total	360,000	1.08

4.2 Capacity

The Hawes Composting Facility groundwater well will be withdrawing water with a 15 gpm pump. The storage tank capacity of 30,000 gallons has been designed to meet potential fire flow requirements. Based upon data provided by the MWA's engineer, the aquifer beneath the Hawes Composting Facility is capable of producing in excess o f 1,000 gallons per minute with little to no impact on the aquifer. The 15 gpm water pump will have less than a 1% impact of the predicted drawdown of the aquifer. Drawdown is the amount of amount of time it takes to refill the space created in a well column from the aquifer. The 15 gpm pump will have no impact on the aquifer.

Total Potential 21,600.00 gpd 7,884,000 GPY 0.066 AFD 24.20 AFY

4.3 Consumptive Use

1,000-gallon per day to be used by Nursery Products is significantly less than the amount permitted by the Mohave Basin Judgment.

Total Use 1,000.00 gpd 365,000GPY 0.003 AFD 1.08 AFY

4.4 Source Supply / Legal Rights

The Mojave Basin Aquifer, located approximately 300' below the grounds surface elevation at the Hawes Composting Facility, has over one million AF of water capable of production for beneficial use. The Mojave Basin Aquifer is well managed and secure water supply, with a California Superior Court imposed physical solution to protect against future overdraft for over the next 100 years.

The Hawes Composting facility has the legal right to produce all of its water supply needs from the Mojave Basin Aquifer at levels exempt from the requirement, to own water rights, or to pay replenishment assessments.

4.5 Quality Report(s)

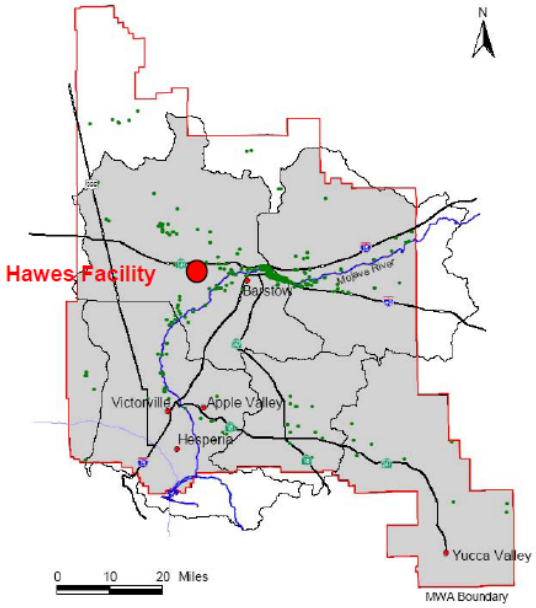
Digital well data provided by the Mojave Water Agency has been compiled in a database for data query and analysis.

Data attributes in the database include water quality, water levels, well production, and GPS locations. The GPS well locations supplied by MWA were compared to the water quality, water level, and water production data to assess data spatial distribution within the MWA. A database query contains well number, well depth, perforated interval, well type and status.

A complete analysis of water quality within the Mohave Basin is extremely labor intensive and beyond the scope of this Assessment, but the MWA anticipates undertaking this effort in the near future.

The map below displays the wells within the current database that have at least one historical measurement for total dissolved solids (TDS) above 500 mg/L. Using GIS to analyze water quality is beneficial for locating areas with particular water quality concerns. As seen on the plot the densest concentration of wells with TDS measurements above 500 mg/L is in the Barstow area.

TDS in water is a secondary standard of 1,000 mg/L. Though it is not anticipated the water produced will exceed 1,000 mg/L, if it does, it is without consequence in that the water is not planned to be utilized for potable purposes.



5.0 Documents Reviewed - Cited

- Mojave Water Agency Regional Water Management Plan 2004
- City of Barstow et al, v. City of Adelanto et al, Riverside County Superior Court Case No. 208568
- Judgment After Trial dated January 10, 1996
- Mojave Water Master Reports 1993 -2007
- 2005 Urban Water Management Plan
- Transition Zone Final Report Phase I and II
- State of the Basin Report
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