

Consumptive Use

The following assumptions were used to estimate the future consumptive use through 2020 for various water uses:

- Industrial and recreational lakes water uses were assumed to remain constant at year 2000 levels. The one exception was industrial use in Alto, which was assumed to increase by 4,000 acre-feet due to the expected operation of the new Hi-Desert Power Project.
- Municipal water use was assumed to change in direct proportion to the population in each subarea. The population estimates used are shown in Table 5-6. Total water use was determined by multiplying these population estimates by per capita water use rates calculated for the year 2000.
- Golf course consumptive use was assumed to change in direct proportion with the change in municipal consumptive use.
- Agricultural consumptive use was estimated under two possible scenarios intended to provide a maximum and minimum estimate of future agricultural demand.

Agriculture Scenario 1: assumes that agricultural water use does not change from the year 2000 estimates through 2020. Under this assumption, any current non-agricultural water deficit within the subarea and all increases in non-agricultural water uses would have to be supplied by imported water.

Agriculture Scenario 2: assumes that rampdown under the Mojave Basin Area Judgment (1996) resumes in 2002 at 5% per year until balance is achieved between production rights and available supply as required by the Judgment. Non-agricultural water use was assumed to be met by existing non-agricultural Free Production Allowances and through voluntary transfers of agricultural free production allowance. It was assumed, however, that at least 1,300 acre-feet of agricultural consumptive use (2,100 acre-feet of production) would remain in Alto, 300 acre-feet of consumptive use (500 acre-feet of production) would remain in Oeste, and 600 acre feet of consumptive use (900 acre-feet of production) would remain in Baja.

These two scenarios result in significantly different estimates of future agricultural consumptive use, especially in Baja. Projected agricultural consumptive uses can be seen for each scenario in Table 5-8. Under Agriculture Scenario 1, the year 2000 values remain unchanged through the year 2020. Under Agriculture Scenario 2, there are significant decreases in agricultural consumptive use because of the assumption that agriculture will voluntarily transfer its free production allowance to non-agricultural uses in-lieu of purchasing replacement water. Figure 5-

"Finally, an administrative assessment will be levied against each acre-foot of production to fund the administrative budget adopted by watermaster." (Emj added.)

One of the drafters of the physical solution testified that its purpose was not to balance water consumption with natural supply because "then the only way to achieve that would be drastic reductions in the amount of water being produced by a lot of people. And that simply was not seen to be an acceptable direction to go by the people who drafted this. The idea was to create a solution that generates the money necessary to acquire water either through transfer or through import and to cause through economic forces water conservation to take place so that in the long term the amount of water supply needed for the area will be made available as opposed to reducing back to some arbitrary amount of water supply."

The drafters thus contemplated that "as a result of the physical solution being imposed that a large number of agricultural interests will cease production and transfer their base annual production to the municipalities." They did not accept any theory of priority of water rights in drafting the physical solution because the drafting committee thought that the results achieved were inequitable⁵ As one of the drafters put it, "the

⁵ The drafting committee invented the terms "free production allowance" and "replacement water obligations" in the process of drafting the physical solution. The trial court, without explanation, accepted free production allowance as a water right.

Watermaster's responsibility to acquire Makeup Water.

Administrative Assessment: Paying the Cost to Administer the Judgment. Costs of monitoring flows, verifying annual production, collecting assessments, preparing an annual report to the Court and other such costs will be recovered through a uniform Administrative Assessment against all production within the Basin Area. The Administrative Assessment will be payable quarterly when quarterly production reports are filed.

Transfers: Buying, Selling or Leasing BAP or FPA. The Judgment provides a framework for BAP or FPA to be bought, sold or leased within Subareas and between Subareas. For instance, a party who was allocated one percent of the FPA in a Subarea could lease that allocation to a second party in a private transaction. The second party could then produce additional water free of a Replacement Obligation.

The Judgment sets forth some rules governing transfers. The rules are designed to assure that the total consumptive use within a Subarea does not increase as a result of any transfer.

Biological Resource Mitigation: Protecting Species and Habitat. The Judgment contains unique provisions for assuring that the water needs of endangered and other species and

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James Markman, Western Water October 2000

The stipulated judgment had to be negotiated in such a way that the ag people wouldn't leave the room Markman said, explaining that the parties tried to make it more attractive for ag users to transfer water to the cities and allow for a slow gradual reduction the "free Production" allowance: starting with 100 percent of production and ending with 80 percent of historic use.

William Wood Jr. Jan 2001

My testimony at trial on February 21 and 22, 1995, regarding the proposed physical solution to reduce overdraft in the Mojave River Basin remains essentially correct and relevant today. Some growers will go out of business whether there is a further rampdown or not. This is due to other economic factors including hay prices, electric rates, debt load, operational efficiency, and managerial ability. In addition, the age and family circumstances of individual growers may play a role. The fact that the physical solution allows water transfers helps many farmers substantially by allowing these farmers to make larger, and more certain, profits by leasing their FPA than they could make farming.

land uses. The damage to rural communities, to the farmland that could not be reclaimed in the short-term due to cost, and to community structure is considered significant.

Mojave Water Agency's "Final Draft Regional Water Management Plan"; Under this circumstance the value of water will increase substantial and agricultural operations which can pay the least for water, compared to municipal users, are likely to have their water rights purchased to support municipal development in accordance with population growth forecasts and the existing land use plans.

Ted Dodson & Associated [environmental consultants]; Actual agricultural consumptive use could be less because of provisions in the proposed physical solution that would allow water right transfers. Transfers would likely occur from agricultural to urban uses.

Jack Beinshroth, Gary A Ledford, Consolidated reply Brief February 26-28 2001

Stipulated Judgment is a contract; The contract as it pertain to the farmers was that they would "not be put out of business" [Trial Exhibit 3001] or if they were put out of business or voluntarily elected to go out of business they would be compensated with a "valuable water right" The evidence presented at trial was that transferable water right after a 20% rampdown would be valued at approximately 10% less than the MWA's prevailing rate. It was fully anticipated that nearly all-farming operations would cease within five years and that municipal production would purchase the farmers water rights to bring the various basins in balance.

Watermaster Expert; If the evidence is that farmers are going to go out of business anyway, what is the point of placing the preverbal straw on the camel's back. It is without doubt that framers, especially family farms that have up until recently been the underlying base of the economic development in the High Desert over the past 100 years have only been profitable from time to time. This

A potential exception is any area where water quality could limit use as a potable supply. Wellhead treatment or provision of an alternative supply is planned for these areas.

MWA directly supplies imported SWP water to two power plants. The supply to the High Desert Power Project (HDPP) is annual, interruptible and only available if adequate SWP water is available on a year-to-year basis. The HDPP is converting to recycled water and has stored SWP water in the Mojave River Groundwater Basin to offset shortages. In September 2010, HDPP signed an agreement to purchase 4,000 afy of recycled water from the City of Victorville, which can come from any combination of SWP, recycled water from Victor Valley Wastewater Reclamation Authority (VWVRA), or the City of Victorville's new recycled treatment plant at the Southern California Logistics Airport (SCLA) site. As of 2015, the HDPP will be using 100 percent recycled water and will no longer rely on the SWP. The other power plant (LUZ Solar Plant) is entirely dependent upon SWP water delivered by exchange through the Antelope Valley-East Kern Water Agency (AVEK) system. LUZ currently has water stored in the Alto Subarea to offset potential SWP delivery reductions when allocations are low.

Sustainability

Producers in each subarea are allowed to produce as much water as they need annually to meet their requirements, subject only to compliance with the physical solution set forth in the Mojave Basin Area 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 parties.

MWA is actively operating recharge sites for conjunctive use along the Mojave River Pipeline and Morongo Basin Pipeline. Recharge sites including Hodge, Lenwood, Daggett, Newberry Springs, and Rock Springs Outlet provide MWA with the ability to recharge SWP water into subareas where replacement water is purchased. These sites also provide MWA with the ability to bank excess SWP water as available.

Water levels within each of the five subareas are evaluated as part of the Watermaster's investigation into subarea conditions and recommendations on FPA. The Judgment does not specifically require that Watermaster consider changes in water levels in its investigation but Paragraph 24 (o) of the Judgment requires Watermaster to consider changes in water in storage. Rising and falling water levels within the Mojave Basin Area are indications of changes in storage over time. If after full implementation of the Judgment, water levels continue to fall in certain parts of the Basin Area, the Court, at Watermaster's recommendation may direct recharge or reductions in water production as necessary to achieve long term sustainability. Such action is not anticipated given the current projections of use and availability of supplemental water to MWA. However, the Judgment is a protective tool to protect sustainability.

3.4.4 Morongo Basin/Johnson Valley Area

The groundwater basins within the Morongo Basin/Johnson Valley Area ("Morongo Area") are bounded by the Ord and Granite Mountains to the north, the Bullion Mountains to the east, the San Bernardino Mountains to the southwest, and the Pinto and Little San Bernardino Mountains to the south. The larger Morongo Area includes numerous small alluvial basins that maintain relatively compartmentalized groundwater flow systems typically terminating in dry lakes



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Mojave Water Deal Overturned: Appellate Court Says Farmers Have 'Overlying' Water Rights

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An appellate court has overturned a significant ruling by a trial judge in San Bernardino County that sought to adjudicate conflicting claims on groundwater in the Mojave River Basin.

The Fourth District Court of Appeal, Division 2, ruled in favor of farmers who will likely be forced to change their water usage as a result of the sweeping decision issued in 1995 by Superior Court Judge E. Michael Kaiser.

In the ruling, Kaiser consolidated a series of conflicting water claims and sought to make an "equitable apportionment" of water rights to all water users in the basin. But in overturning portions of Kaiser's decision, the Fourth District ruled that the judge had erroneously ignored the farmers' "overlying" water rights. However, the Fourth District stopped short of overturning the entire ruling. Rather, the court called upon all parties to stipulate to a new agreement that recognizes the farmers' water rights.

The Mojave River Basin litigation emerged from the conflict between rapid urban development and continued agricultural cultivation in a groundwater basin that is already overdrafted. The adjudication overseen by Judge Kaiser began with a suit brought by the City of Barstow against the City of Adelanto, the Mojave Water Agency, and a series of other upstream users. The water agency then filed a broad-ranging cross-complaint that opened the door for a full adjudication.

The Mojave River basin water rights issue was complicated because thousands of well owners, including farmers and municipalities, used a wide variety of legal theories in order to assert their claims. Instead of sorting through these claims one at a time, however, Judge Kaiser chose to take the bold step of applying a doctrine known as "equitable apportionment."

Refusing to grant legitimacy to any individual water claim, he concluded that all users were at fault because virtually all development in the region has taken place since the overdraft problem first arose in the 1950s. Therefore, he ordered all parties involved to share in water cuts and named the Mojave Water Agency to serve as "water master" of the region.

Under Kaiser's plan, all water users in the basin are required to participate in a "rampdown," reducing their water usage over a period of several years until the overdraft is eliminated. Water users that use more water than called for in the rampdown plan will pay assessments to the Mojave Water Agency, which will use the money to buy water rights from other water users in the basin or from the State Water Project.

* The ruling was expected to drive some farmers out of business and thus facilitate urban development. Some lawyers predicted that alfalfa farmers, who use large amounts of water, may not be able to survive with less water and probably can't afford to pay the assessments required to maintain current levels of water use. Thus, it appears likely that many of them will sell their water rights to the Mojave Water Agency, which will fund the purchases with the overdraft assessments.

The ruling was challenged by Manuel Cardozo and a group of alfalfa farmers, who argued that their rights should have been considered in the ruling. After a lengthy review of California water law, the Fourth District recognized that while Kaiser's ruling may invoke "general equitable principles to achieve practical allocation of water to competing interests," it may not "ignore or eliminate the rights of riparian or overlying property owners over their objections." (Though it did not require changes in engineering and diversion practices,

2. Intrabasin transfers between users with different consumptive uses. An example of this would be a Lake in Centro transferring to a City in Centro. If the percentage of water consumptively used by Lake is less than that of City, Watermaster must adjust the amount City is allowed to produce without a replacement assessment. Assuming Lake was entitled to produce .01% of the safe yield of the basin and in 1996 this equals 224 acre feet. If the surface acreage of the lake is 10 acres, 70af of water is consumptively used by Lake each year. If the City produced the same 224af it would consumptively use 112af of water thus overdrafting the basin. Watermaster will reduce City's free production right to 140af so that the amount consumed out of the basin remains 70af. As in example 1 no permission is needed but the Watermaster must be notified.

No adjust is made if the transfer is from a higher consumptive use to a lower consumptive use, such as a mine in Este which uses water for dust control (100% consumption) to a Farmer in Este.

3. Interbasin (between different basins) transfers between users with the same consumptive uses. An example of this type would be a transfer from a Farmer in Baja (Source basin) to a City in Alto (Use basin). The Watermaster must approve the transfer since rights from one subarea will be produced in a different subarea. The Watermaster shall approve all requests so long as the consumptive portion of the water being transferred out of the Source basin is less than, or equal to, the consumptive portion of the overproduction in Source basin which is paying replacement assessments to Watermaster. This limitation on transfers is necessary because City is overdrafting the Alto basin when it produces the water leased or bought from Farmer. The Baja basin has a surplus because Farmer did not produce. Watermaster balances these difference by using the assessments paid by the over-

producers in Baja to replace the consumptive portion of the water overproduced by City in Alto. The water not produced by Farmer replaces the consumptive portion of the water overproduced by the parties who paid the assessment in Baja.

4. Interbasin transfers between users with different consumptive uses. This is 2 and 3 combined. Watermaster must approve the transfer because it involves two subareas and adjust City's production right so that City consumes the same acre feet as Lake did.

Transfers are not really as complicated as they appear. I will go through the process again at our next meeting. Just remember if you are planning to sale or lease your water rights in the next few years start hunting for buyers now. Look first for buyers in your own subarea since there are no limits on these transfers. If you must go outside of your own basin, make tentative deals now but remember you can only complete the transfer if others are paying assessments to the Watermaster in your subarea.

This limitation will be hard on some of us, but it is much better than the alternative, no transfers at all. Remember that most of the Cities did not want water to be transferable. They wanted to get the water free once the farmer lost the land. These cities would only agree transfers if the judgment insured that the subarea were kept in balance.

OTHER ITEMS OF INTEREST:

The Victor Valley Water District wanted every producer to be required to install a water meter. Ed Stringer and I successfully argued that pump tests were just as reliable. The engineers backed us up and it was agreed that a party will only be required to install a water meter if he does not maintain accurate pump tests and energy records or if he misstates his production.

THERESE PARKER

*MOJAVE AG WATER USERS ASSOCIATION
MAY 1993*