

PHYSICAL SOLUTION

“With a case of this magnitude, it became obvious that every effort should be made to arrive at an equitable settlement and a physical solution ...”

– Watermaster Report

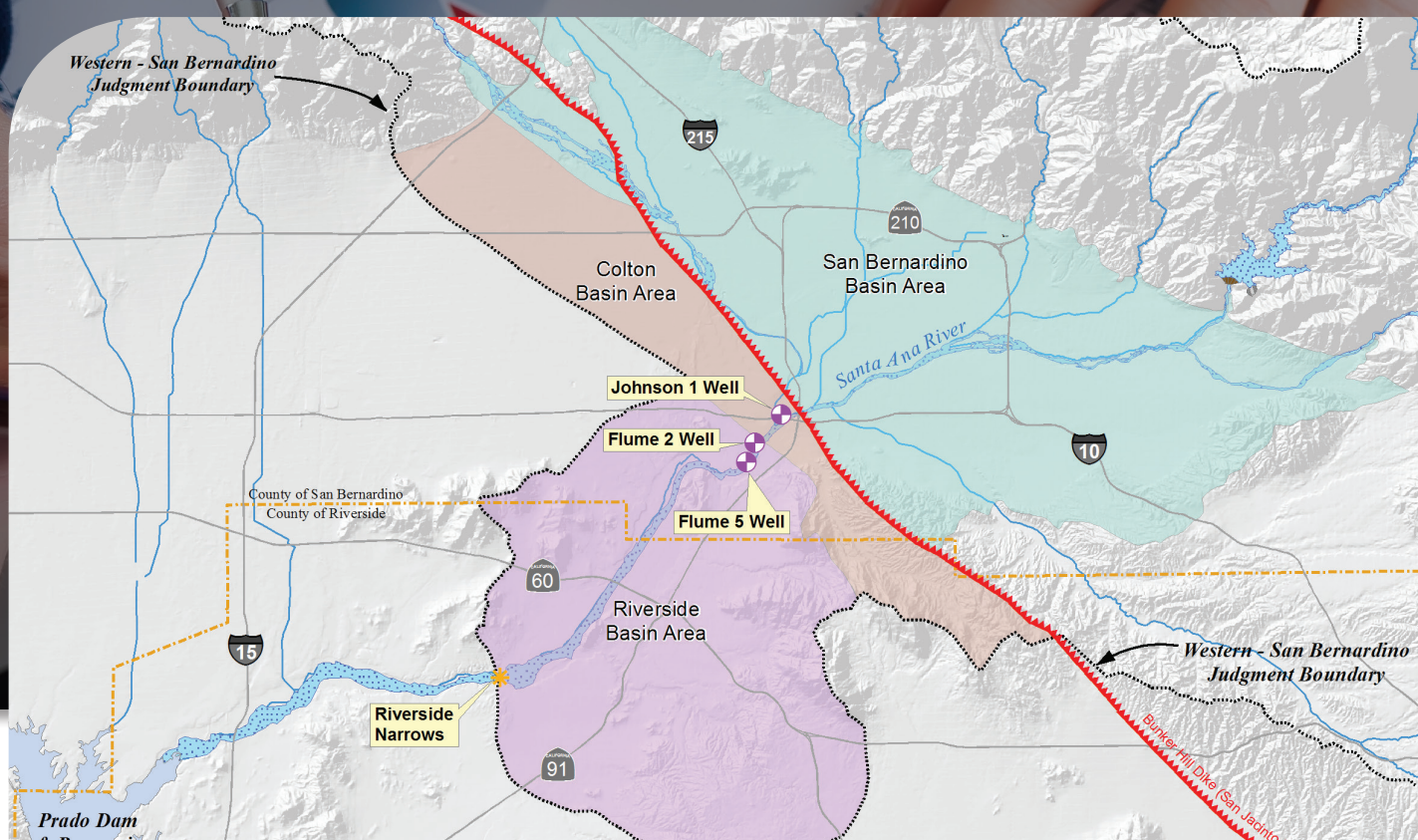
AN OVERVIEW OF ONE OF THE MOST INNOVATIVE
WATER DECISIONS IN CALIFORNIA

The underlying goal of Western-San Bernardino Judgment is to track water resources and ensure sustainability in the Upper Santa Ana River Watershed. If the amount of water removed exceeds the amount coming in, recharge is required.

Indicator Panel

San Bernardino Basin Area	Yes	No	Reference
RIVERSIDE ENTITIES Within extraction limits?	★		Figure 1
SAN BERNARDINO ENTITIES Cumulative recharge exceeds cumulative extractions?	★		Figure 2
Recharge required: none			

Colton and Riverside Basin Areas	Yes	No	Reference
RIVERSIDE ENTITIES Within extraction limits?	★		Figure 3
SAN BERNARDINO ENTITIES Cumulative recharge exceeds cumulative extractions?	★		Figure 4
Recharge required: none			



Introduction

For more than 40 years, the water resources of the upper Santa Ana River Watershed have been shared successfully in accordance with the terms of a legal settlement reached in 1969.

PHYSICAL SOLUTION IS INTENDED TO PROVIDE A GENERAL UNDERSTANDING OF THE 1969 WESTERN SAN BERNARDINO JUDGMENT WITHOUT GOING INTO ALL OF THE UNDERLYING DETAILS.

For more than 40 years, the water resources of the upper Santa Ana River Watershed have been shared successfully in accordance with the terms of a settlement known as the Western-San Bernardino Judgment (Judgment). The Judgment, reached in 1969, is a complex and lengthy legal document carefully crafted to:

- Safeguard sustainable water supplies into the future
- Equitably divide resources in the upper Santa Ana River Watershed to Riverside Narrows area (Judgment Area) between the upstream water users in the San Bernardino area (San Bernardino Entities) and the downstream water users in the Riverside area (Riverside Entities), and

- Ensure that the Santa Ana River flow obligations from the San Bernardino and Riverside areas to Orange County, required by the 1969 Orange County Judgment (OC Judgment), will be met long into the future.

Physical Solution is intended to provide a general understanding of the 1969 Western San Bernardino Judgment, focusing on the judgement's key issues and information using layman's terms. Those who read this document and are interested in additional details are encouraged to read the Judgment itself which is available on the Valley District website (sbvmwd.com) under Reports & Forms.



Why is there a judgment?

CONTEXT: HISTORY, CLIMATE & GEOGRAPHY

While the Santa Ana River is often dry, it is actually the largest coastal stream in Southern California. Its watershed – the area it drains – encompasses nearly 2,500 square miles and extends from the San Bernardino Mountains to the Pacific Ocean. Most of the flow of the Santa Ana River, when it does flow, makes its way through the upper watershed near the City of San Bernardino. The semi-arid climate in the watershed results in a “feast or famine” water crop, which creates competition within the watershed for this precious resource. Those in the upper watershed, where most of the rainfall occurs, have a definite advantage over those downstream. Over time, the downstream water users filed numerous lawsuits asking the courts to help divide the water.

The Western-San Bernardino Judgment is the culmination of decades of litigation and engineering studies. It determines how the water in the San Bernardino Basin Area is divided between San Bernardino Entities and Riverside Entities, and establishes how these entities will each meet their respective Santa Ana River flow obligations to Orange County under the Orange County Judgment. An understanding of the history leading up to the crafting of this historic document provides context and appreciation.

INCREASED DEMAND

Agricultural development within the watershed began in 1848 and brought with it a continually increasing demand for water. Years of drought between 1850 and 1880 exposed the vulnerability of the natural water supply and resulted in the first dams constructed to help store winter flows for release in the summer when irrigation demand exceeded the available streamflow. About the same time, the U.S. Department of Agriculture sent three small Brazilian navel orange trees to a Riverside resident. Because of Riverside’s year-round sunshine and rich soil, the orange trees thrived. The only thing that Riverside lacked was water. Matthew Gage, an immigrant from Canada, would solve this problem by developing the Gage Canal System to transport water from the San Bernardino area into Riverside. As surface water flows in the watershed decreased during times of drought, wells were added to the system that pumped groundwater from the San Bernardino area into the Gage Canal System.

To further supplement the less predictable surface flow, wells were drilled, giving farmers access to rainfall stored underground as groundwater. The increased use of

groundwater created the desire to increase the amount of captured rainfall by directing rain into ponds along the upper watershed mountain front, where it would sink into the ground and be stored as groundwater. This deliberate process of recharging water into the underground basin is referred to as “artificial recharge,” as opposed to “natural recharge,” which occurs without any assistance.

Watershed-wide support for artificial recharge in the upper watershed was demonstrated in 1907, when representatives from Orange, Riverside and San Bernardino Counties collectively requested that the Federal Government set aside 960 acres just downstream from the headwaters of the Santa Ana River for an artificial recharge project. After Congress granted this request, the group formed a new organization in 1909 called the Water Conservation Association. The organization constructed a diversion dam at the headwaters of the canyon and a ditch leading from the diversion dam to the newly acquired recharge area. About the same time, other entities were also constructing ditches and recharge pits.

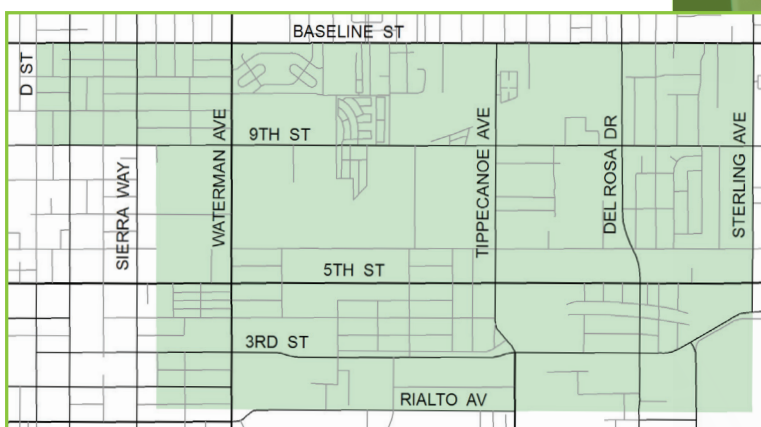
EARLY LEGAL DISPUTES

In 1918, a lawsuit was filed by the City of San Bernardino against the City of Riverside and the Riverside Water Company. This suit would be the first in many legal cases that would help divide the water in the watershed. In their legal complaint, San Bernardino claimed that the Riverside parties were exporting too much water from “their” underlying groundwater basin. San Bernardino claimed that since it overlaid the groundwater basin, it had the right to all of the groundwater. While the trial court agreed with San Bernardino, its decision was later overturned by the California Supreme Court, which said that the city’s rights were no different than any other individual, or “appropriator.” In other words, the city did not own the groundwater simply because

the city was built over the groundwater. They had to prove that they needed the water and could put it to beneficial use. This Supreme Court decision is still cited today and resulted in the “Antil Decree” of 1922, which established pumping rights for Riverside and San Bernardino in San Bernardino’s Antil region.

Later, in 1929, Orange, Riverside and San Bernardino counties jointly paid to construct a more permanent diversion dam in the headwaters of the Santa Ana River canyon. This dam, called the Cuttle Weir, is still in use today. In 1931, the State legislature appropriated funds for water recharge and flood control projects in the upper watershed and required an equal amount of local matching funds.

Figure i. Boundary of the Antil Decree.



When the Water Conservation Association approached the three counties to help meet the local funding portion for additional recharge ponds in the upper watershed, Orange County changed its mind for fear that expansion of recharge in the upper watershed would correspondingly decrease river flow to Orange County.

The Western-San Bernardino Judgment finally determined how the water in the San Bernardino Basin Area would be divided.

Why is there a judgment? (Continued.)

ORANGE COUNTY FEARS

The fear that upstream recharge could limit flow in the river to Orange County spread to other water users in Orange County. One such user, James Irvine, filed a protest in July 1932 against the Water Conservation Association and all parties recharging water in Mill and Lytle Creeks. When no settlement could be reached, The Irvine Company filed a suit in Federal Court titled “Litigation—Lower Basin Versus Upper Basin”. This was the first lawsuit between the lower and upper watershed. In 1933, the Orange County Water District (OCWD) was formed to represent the large number of Orange County well owners who would be affected by any legal settlement that might be made. OCWD would eventually take over the prosecution of the complaint and reimburse The Irvine Company for a majority of its expenses in the case.

The San Bernardino Valley Water Conservation District, formed in 1932, who paid half the cost to operate the upper watershed recharge facilities represented the upstream interests.

After ten years, the parties agreed to a stipulated judgment that established:

1. Recharge limits, in some cases
2. Recharge rates that varied by season, by amount of flow downstream and, in some cases, by well levels.

DRY YEARS PROMPT ADDITIONAL LITIGATION

The late 1930s and early 1940s was the wettest period on record for the upper watershed. But that would begin to

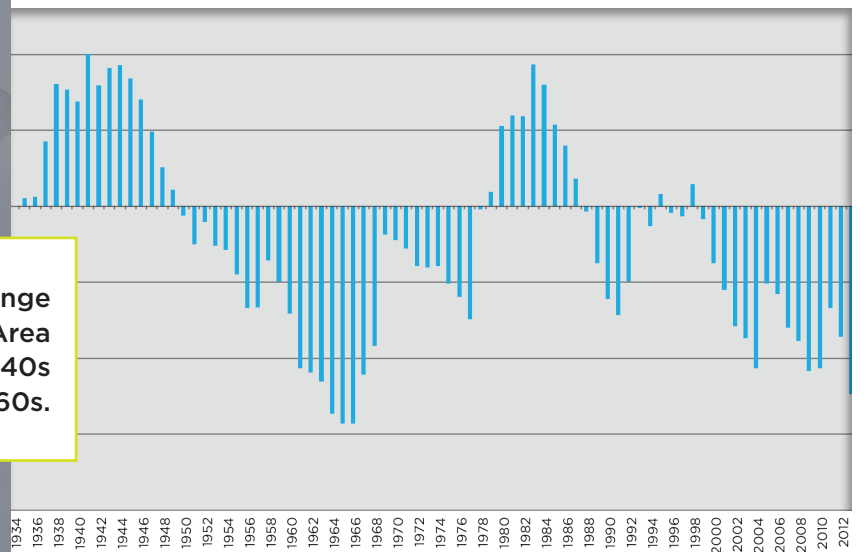


Figure A. This plot of the cumulative change in storage for the San Bernardino Basin Area shows a 20-year drought starting in the 40s and lasting through the 60s.

change in 1945, resulting in a 20-year drought and the lowest water levels ever recorded in the upper watershed! Understandably, as stream flow and groundwater levels decreased during the continuing drought, tensions in the watershed increased, especially for those located downstream. In October 1951, after watching the effects of seven years of drought, OCWD filed a lawsuit against four upper watershed cities (San Bernardino, Riverside, Redlands and Colton) claiming that the cities' increased use of water was to blame for the decline in streamflow and associated decline in groundwater levels in Orange County. The four cities argued that they had a right to use the water and that the drought was to blame for the decline in streamflow and groundwater levels in Orange County. Meanwhile, the drought continued.

Faced with 10 years of drought and a possible judgment in favor of Orange County that could result in reduced amounts of water for the four cities, the San Bernardino area voted to form the San Bernardino Valley Municipal Water District (Valley District) to represent the San Bernardino Entities in the lawsuit against Orange County and to find a supplemental water supply for the upper watershed. In 1957, the court sided with Orange County and cut the amount of water each of the four cities was entitled to use by fifty percent. With no supplemental water supply immediately available (the area was taking the necessary steps to connect to the State Water Project at that time), the four cities immediately asked the court to postpone implementation of the judgment until the appeal process was concluded. The court granted this request, and for the next four years the four cities appealed the pending judgment while the drought continued. Finally, in 1961, the appellate court ordered the trial court to issue an amended judgment that placed limits on the water use by the four cities. Although Orange County won the lawsuit, they were not yet satisfied with the result.

PHYSICAL SOLUTION

In 1963, two years after the 1961 judgment and with the drought and its accompanying effects entering its 19th year, water agencies in the Riverside Area joined together to file a lawsuit against their neighbors in the upper basin to divide the surface and groundwater. Later that same year, OCWD filed another lawsuit

against the upper watershed seeking a “physical solution” that would divide the water resources in the watershed. The OCWD lawsuit placed Valley District in the awkward position of working with the Riverside entities to defend against the claims in the OCWD lawsuit, while at the same time working against them in the Riverside Entities lawsuit.

The Orange County lawsuit would ultimately include 4,000 parties. To avoid the enormous expense of bringing a case of this magnitude to trial, the parties all agreed to work together on an equitable arrangement. The same strategy would also be used for the Riverside lawsuit.

To simplify the proceedings, the Orange County parties agreed to be represented by the Orange County Water District; the Riverside parties agreed to be represented by the Western Municipal Water District; and the San Bernardino Parties agreed to be represented by the San Bernardino Valley Municipal Water District. On April 17, 1969, both lawsuits were settled in the form of two stipulated judgments that are still being followed to this day - the Orange County Judgment and Western-San Bernardino Judgment. Both lay out terms for a “physical solution.”

Ironically, the year that these judgments were entered was also the end of the wettest three-year period on record, which resulted in upper basin storage increasing by nearly 500,000 acre-feet, and erased the effects of 13 years of the previous 20 years of drought.

A 20-year drought made everyone in the watershed understandably nervous and resulted in a number of lawsuits filed by downstream water users against upstream water users.



What is the purpose of the judgment?

THE PROBLEM

The Western-San Bernardino Judgment finally determined how the surface and groundwater resources in the San Bernardino Basin Area would be divided and how the San Bernardino and Riverside Entities would comply with their respective Santa Ana River flow obligations to Orange County under the Orange County Judgment.

PARTIES

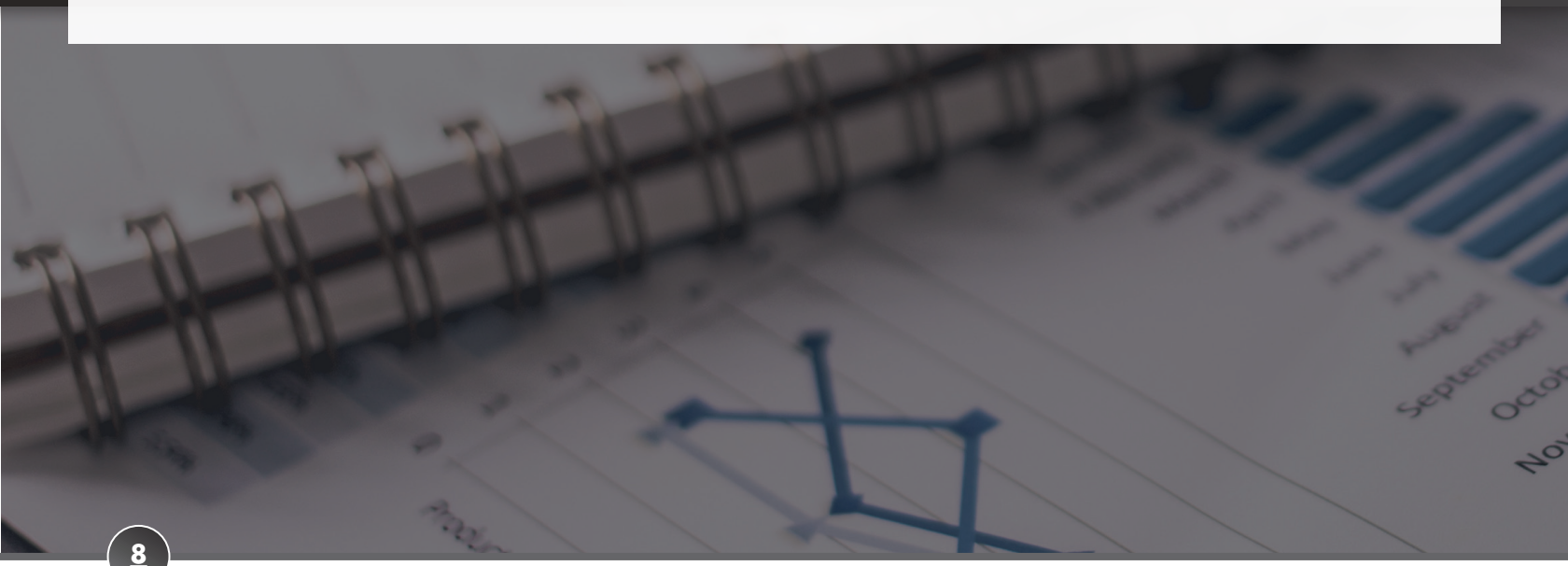
The lawsuit was filed by the downstream entities of:

- *City of Riverside*
- *The Gage Canal Company*
- *The Agua Mansa Water Company*
- *The Meeks & Daley Water Company*
- *The Riverside Highland Water Company*
- *The Regents of the University of California at Riverside*

Against the upstream:

- *East San Bernardino County Water District, now the East Valley Water District, and many other public and private water agencies in the upper basin.*

To simplify the litigation process, the Riverside entities agreed to be represented by the Western Municipal Water District and the upper basin entities agreed to be represented by the San Bernardino Valley Municipal Water District.



"Attorneys and engineers representing the four major districts and a large number of the defendants worked diligently in order to effect a settlement and some type of physical solution which would prove acceptable to all parties."

— Watermaster Report

What does the judgment do?

The Judgment replaces some prior court ordered restrictions and establishes the rights of the Riverside Entities and the San Bernardino Entities to surface and groundwater resources in the San Bernardino Basin Area. It also establishes a process to help ensure that these resources will continue to be available into the future.

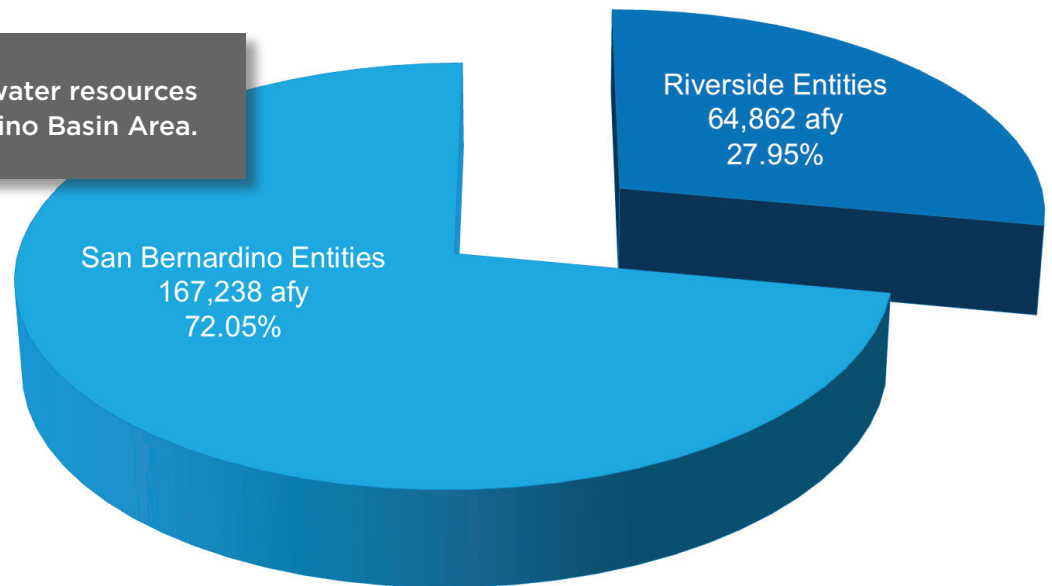
The Judgment also includes provisions that help the Riverside and San Bernardino Entities comply with the Santa Ana River flow requirements under the Orange County Judgment and establishes a process to help ensure future compliance as well.

There are two themes that run through the Judgment. The first theme reflects the individual desires of the Riverside and San Bernardino Entities. The Riverside Entities desired that their rights to water be explicitly expressed as an amount while the San Bernardino Entities desired management flexibility. This theme is found throughout the judgment in the form of the Riverside Entities receiving a fixed amount of water and the San Bernardino Entities receiving a defined "boundary" within which to manage.

The second theme is that of identifying and mitigating any future changes that could result in overdraft, or the drying up of water resources. This theme is found throughout the Judgment in the form of tracking present extractions and comparing them to the calculated safe yield (see next section) or to extractions during the judgment period (1959-63). To prevent overdraft, if extractions exceed prescribed limits, recharge is required.

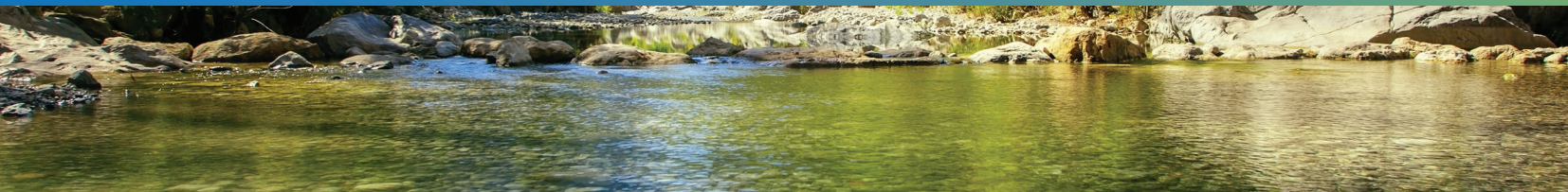
The San Bernardino Entities are represented by San Bernardino Valley Municipal Water District and the Riverside Entities are represented by the Western Municipal Water District.

Figure B. Original division of water resources in the San Bernardino Basin Area.



How is the water divided in the San Bernardino Basin Area?

In the San Bernardino Basin Area, annual well and surface water extractions are compared with the sustainable, annual extraction amount from the safe yield analysis. If cumulative extractions are too high, recharge is required.



WHAT IS THE SAFE YIELD?

The first step in dividing the water resources of the San Bernardino Basin Area (SBBA) equitably was to quantify them. As a result, the parties worked together to calculate the theoretical amount of water that could be withdrawn from the SBBA over time without causing long-term harm. This amount is known as the “safe yield.” The Riverside Entities were allocated a fixed 64,862 acre-feet per year, or 27.95% of safe yield. The San Bernardino Entities were allocated 167,238 acre-feet per year, or 72.05%, but were not limited to this amount. Instead, the San Bernardino Entities compare their annual extractions to the safe yield amount and keep a running total of the differences. If the running total is positive, meaning that cumulative extractions have been less than the cumulative safe yield, no action is required. If the running total is negative, meaning that cumulative extractions have been more than the cumulative safe yield, the San Bernardino Entities must recharge the basin with an outside, or new, source of water until the balance returns to positive.

CAN THE SAFE YIELD EVER CHANGE?

The safe yield is based upon the rainfall from a given set of years so it represents a snapshot in time. Over time, rainfall could remain the same, increase, or decrease. Should there be an indication that the safe yield value needs adjustment, the Judgment provides an administrative structure under which the safe yield can be recalculated.

WHAT IS NEW CONSERVATION?

The judgment recognizes that the SBBA could gain or lose water over time. Water could be gained if future facilities are constructed that could capture and use stormwater that was historically considered lost to the basin during the safe yield analysis. Water could also be gained by recharge of an outside source of water like water imported through the State Water Project. Water could be lost if flood control channels that were unlined during the period of the safe yield analysis were lined with an impermeable surface like concrete, thereby eliminating natural groundwater recharge that occurred in those channels when safe yield was being calculated. If the sum of gains and losses is positive, there is more water available than there was during the safe yield analysis, and the amount of water available for extraction would increase. The Judgment defines this net increase as “new conservation.” In order to receive a proportionate share of new conservation water, the Riverside and San Bernardino Entities must share in the costs of the facilities constructed to create the new conservation. Costs are shared between the Riverside and San Bernardino Entities based upon their proportion of the safe yield, 27.95% and 72.05% respectively. For the Riverside Entities, new conservation increases their allowable extractions from the SBBA by their proportional share of new conservation. For the San Bernardino Entities, new

conservation is viewed as an outside source of water and is therefore recorded as a credit in their running account.

If the summation of gains and losses since the calculation of the safe yield should be negative, there is less water available than during the safe yield analysis and the allowable extractions of water for the Riverside Entities and San Bernardino Entities would be proportionally reduced.

In 2014, the Watermaster determined that the construction of the Seven Oaks Dam resulted in the capture of stormwater that historically flowed to the ocean and is “new” to the basin. Watermaster calculated that 42,840 acre-feet of new water was captured and recharged by the Seven Oaks Dam from its construction in 1998 to 2012. The Riverside and San Bernardino Entities each received a proportionate share of this new water.

For the period 2012 forward, Watermaster increased the safe yield of the SBBA by the estimated amount of new water captured by the dam, 7,643 acre-feet per year (AFY). **This increased the San Bernardino Entities share of safe yield to 172,745 AFY and the Riverside Entities share to 66,998 AFY.** Watermaster will “true up” this estimated increase in safe yield with actual, measured data and adjust as necessary.



Table 1. Summary of San Bernardino Basin Area (SBBA) Goals, Strategy and Requirements.

SAN BERNARDINO BASIN AREA GOALS:

- *Determine the safe yield*
- *Divide the safe yield*
- *Preserve the safe yield*
- *Recalculate the safe yield, if needed*

STRATEGY:

- Track extractions on an annual basis and compare to established limits.
- Provide artificial recharge when cumulative extractions exceed the established limits.

Riverside Entities: 66,998 afy

San Bernardino Entities: no limit

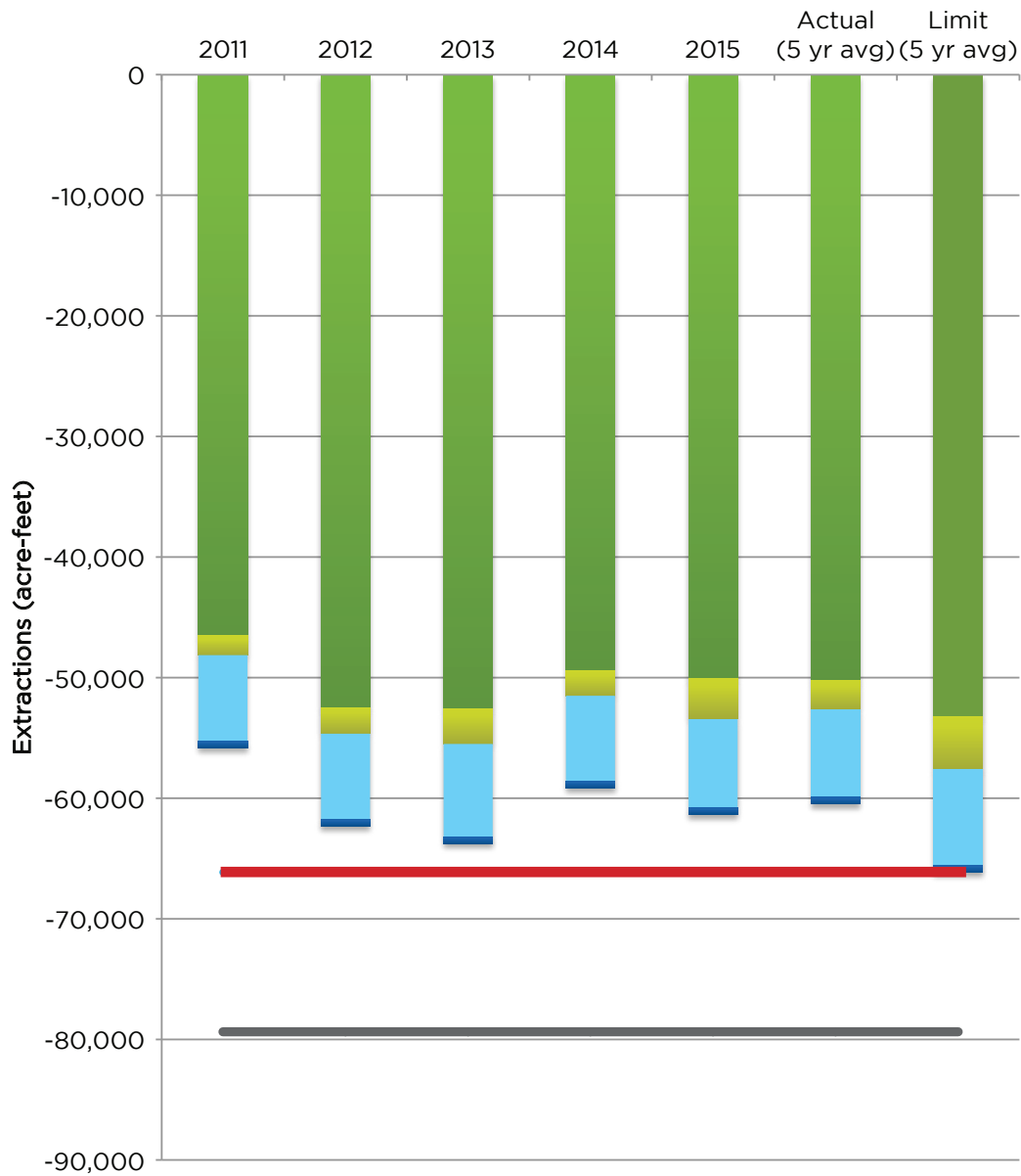
TO PREVENT OVERDRAFT:

- Riverside Entities are not allowed to extract more than a 5-year average of 66,998 afy, adjusted for any net gains or losses of water to the SBBA.
- San Bernardino Entities are required to recharge if their cumulative extractions exceed their cumulative allocation of safe yield adjusted for any net gains or losses of water to the SBBA.

The San Bernardino Entities extractions are not limited. However, if their cumulative extractions exceed safe yield, recharge is required.

Key charts for San Bernardino Basin Area

RIVERSIDE EXTRACTIONS FROM SAN BERNARDINO BASIN AREA

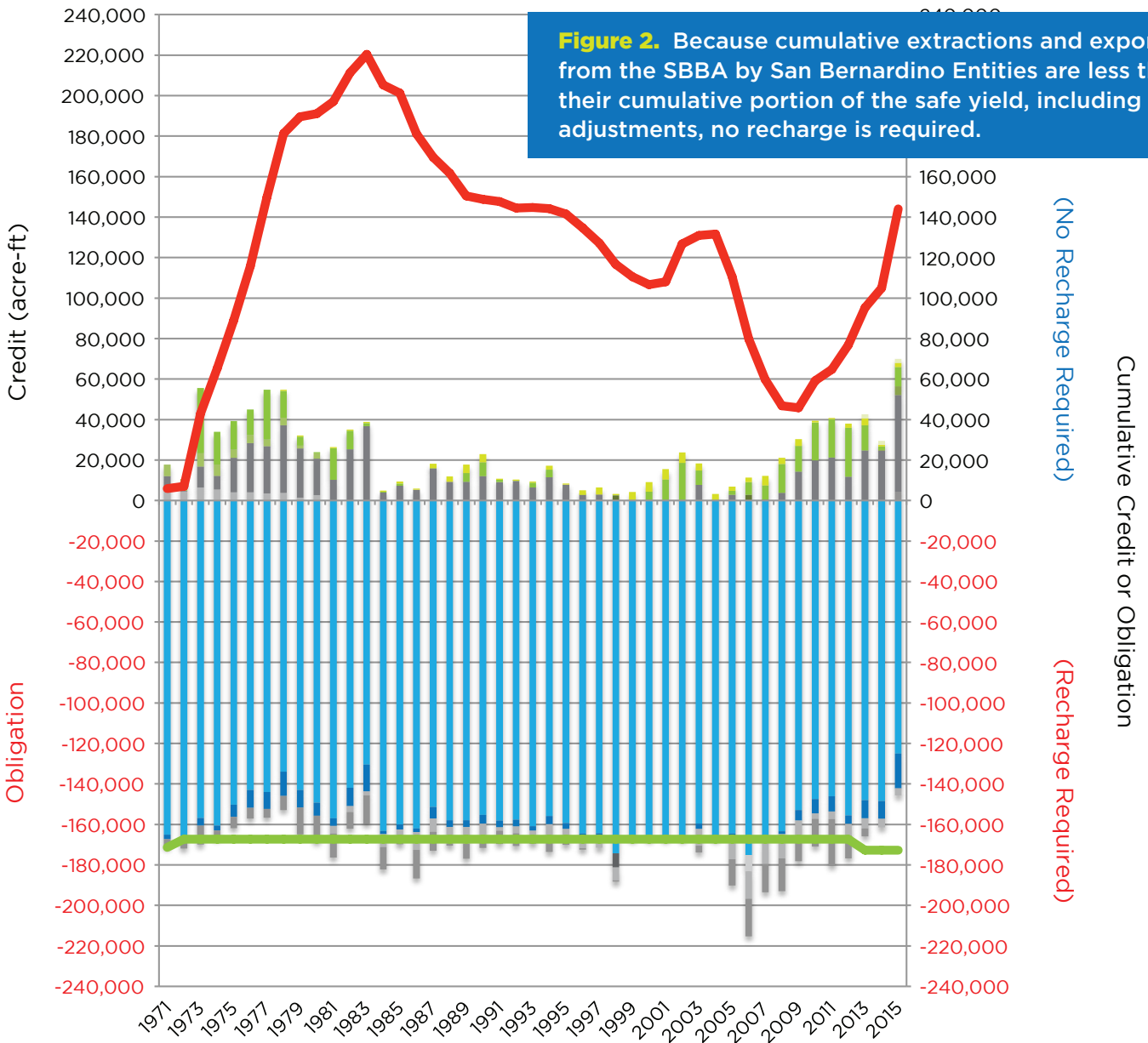


- ★ Regents Actual Extractions
- ★ AM and M&D Actual Extractions
- ★ RHCW Actual Extractions
- ★ City of Riverside Actual Extractions

- ★ Allowed Annual Peaking Factor
- ★ 5 Year Average Limit

Figure 1. Because the five-year average extractions from the SBBA by the Riverside Entities are within limits, no recharge is required.

SAN BERNARDINO EXTRACTIONS FROM SAN BERNARDINO BASIN AREA



- ★ Credit - Return from New Conservation
- ★ Credit - Return from Imported Water
- ★ Credit - Replenishment
- ★ Credit - [Under] New Deliveries
- ★ Credit - [Under] New Export
- ★ Credit - Return from Excess Extractions
- ★ Credit - [Under] Extraction
- ★ New Export [post Judgment]
- ★ New Deliveries [out of SBBA post Judgment]
- ★ Obligation - [Loss of] Return from Under Extractions
- ★ Obligation - [Over] Extraction
- ★ Extractions
- ★ Limit - Adjusted [Extraction] Right
- ★ Cumulative Credit or Obligation (2015)

Extractions are within limits so no recharge is required in the San Bernardino Basin Area at this time.

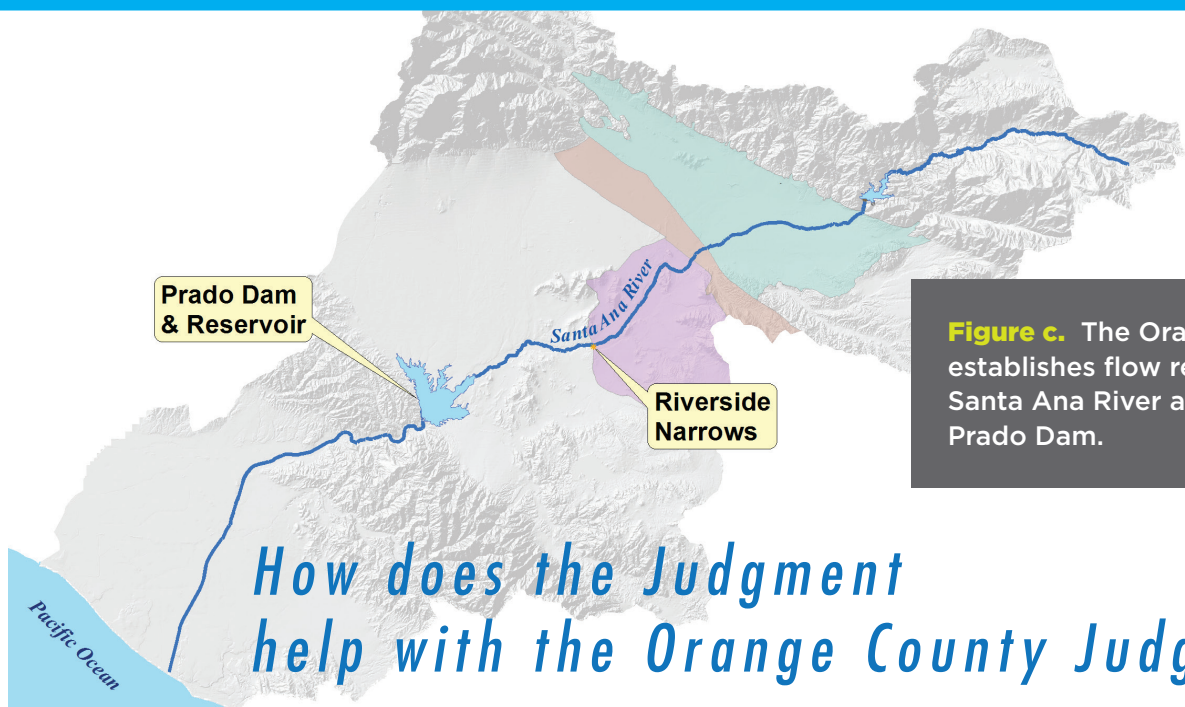


Figure c. The Orange County Judgment establishes flow requirements in the Santa Ana River at Riverside Narrows and Prado Dam.

How does the Judgment help with the Orange County Judgment?

The San Bernardino Entities were concerned that if well extractions were not limited between the San Bernardino Basin Area and Riverside Narrows, the flow in this reach of the Santa Ana River would soak into the river bottom and never reach Riverside Narrows.

The Orange County Judgment (OC Judgment) guarantees that Orange County will receive an average annual surface flow in the Santa Ana River, or “base flow”, at Prado Dam. Valley District is required to meet an incremental portion of the base flow obligation upstream of Prado at Riverside Narrows. Riverside Narrows was chosen as the compliance point because it is a location where the underground flow of the river is forced to the surface by the underlying bedrock. Given the flow contribution from Valley District at Riverside Narrows, Western and Inland Empire Utilities Agency are then responsible for meeting the flow obligation at Prado. The OC Judgment provided that the base flow requirements could be reduced if the actual base flow consistently exceeded the

required base flow and/or if the Total Dissolved Solids (TDS) in the water stayed within certain limits. Since the actual base flow and the water quality have consistently exceeded the requirements, the present minimum annual surface flow obligation for Valley District at Riverside Narrows is 12,420 acre-feet and 34,000 acre-ft for Western and IEUA at Prado.

To meet its annual obligation at Riverside Narrows, Valley District made an agreement with the San Bernardino Municipal Water Department to discharge 16,000 acre-feet of their treated wastewater into the river every year. However, recognizing that this water could potentially soak into the river bottom before ever reaching Riverside Narrows if water levels in the underlying groundwater basins were to drop,

the Judgment limits extractions in the basins between the Bunker Hill Dike (San Jacinto Fault) and Riverside Narrows to the five year average during the SBBA safe yield analysis, 1959-63. For the Colton Basin Area and the portion of the Riverside Basin Area that is in San Bernardino County, the Riverside Entities are limited to 3,349 acre-feet and 20,191 acre-feet, respectively. As long as the annual production for the Riverside Entities does not exceed these limits, no action is required. If the Riverside Entities’ annual extractions exceed the limits and the flow obligations at Riverside Narrows are not being met, then Western is required to provide replenishment. If the flow obligations at Riverside Narrows are being met, then Western is not required to provide replenishment.

How does the judgment interact and help with the Orange County Judgment?

Like in the SBBA, extractions by the San Bernardino Entities in the Colton and Riverside Basin Areas within San Bernardino County are not limited. Instead, the need by the San Bernardino Entities for artificial recharge in these areas is based upon the average of the water levels for three indicator wells: Johnson No. 1, Flume No. 2 and Flume No. 5. If the average water level of the three wells stays the same as it was in 1963, no action is required. If the average falls below what it was in 1963, Valley District is responsible for artificially recharging (following any required recharge by Western) until the average of the three wells returns to 1963 levels.

Western is given sole responsibility for the portion of the Riverside Basin Area in Riverside County. If extractions from this area stay at, or below, 30,044 acre-ft, no action is required. If extractions exceed the limit, then Western must provide artificial recharge to offset the overage. The Judgment also recognizes that conversion of agricultural land to a more hardscaped urban use in this area could also reduce the amount of water that sinks, or returns, to the basin (return flow). Should land conversion result in less flow in the river, Western agrees to provide the replenishment to offset the loss in return flow.

Even if well extractions are limited, if more of the extracted water is exported outside of the judgment area, there would be less return flow. To prevent a loss of return flow, both the San Bernardino and Riverside Entities agreed to limit exports to 1963 amounts. These levels were later adjusted downward based on the safe yield analysis and other data to 42,535 acre-feet for the Riverside Entities and 11,701 acre-feet for the San Bernardino Entities. If annual exports are at, or below, these limits, no action is required. If exports for the Riverside Entities are greater than 1963 amounts, Western is required to provide replenishment water at, or upstream from Riverside Narrows. However, Western's replenishment obligation can be waived by the Court if the amount of base flow at Riverside Narrows is sufficient to meet Valley District's obligations under the Orange County Judgment. If exports are greater than 1963 amounts for the San Bernardino Entities, Valley District is required to provide replenishment water in the SBBA. However, the Court can also waive their replenishment obligation if the average water level of the indicator wells is within limits.

Table 2. Summary of Santa Ana River Goals, Strategy and Requirements.

GOAL: Meet Orange County Judgment flow requirements

STRATEGY: Prevent or eliminate a decrease in groundwater levels that would decrease river flows between the Bunker Hill Dike (San Jacinto Fault) and the Valley District compliance point for flows in the Santa Ana River at Riverside Narrows.

Orange County Judgment flow requirements

WESTERN AND IEUA

Minimum flow requirement: *42,000 afy*
 Current flow requirement: *34,000 afy*
 Compliance point: *Prado*

VALLEY DISTRICT

Minimum flow requirement: *15,250 afy*
 Current flow requirement: *12,420 afy*
 Compliance point: *Riverside Narrows*

Colton and Riverside Basin Areas in San Bernardino County

RIVERSIDE ENTITIES

Colton Basin Area pumping: *3,381 afy*
 Riverside Basin Area pumping: *21,085 afy*
 Replenishment “trigger”: *pumping limits exceeded*

SAN BERNARDINO ENTITIES

Colton Basin Area: *no limit*
 Riverside Basin Area: *no limit*
 Replenishment “trigger”: *if the average water level of three wells drops below 822.04 MSL*

Riverside Basin Area in Riverside County

Riverside Entities: *29,663 afy*
 Replenishment “trigger”: *pumping limit exceeded*

San Bernardino Entities: *n/a*

Exports out of the Judgment Area

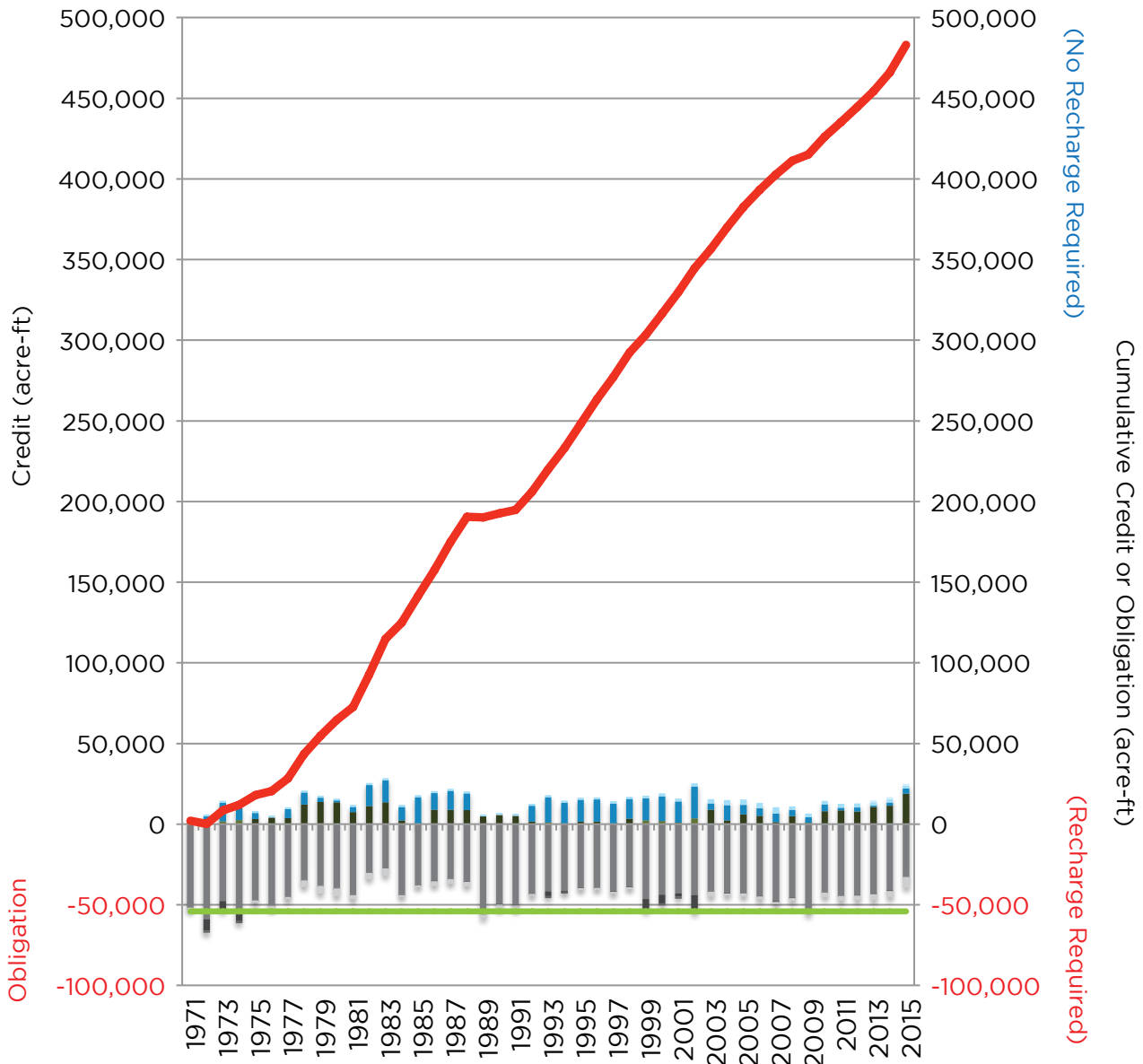
Riverside Entities: *42,535 afy*
 Replenishment “trigger”: *exports limit exceeded*

San Bernardino Entities: *11,701 afy*
 Replenishment “trigger”: *exports limit exceeded*

If the basins between the San Bernardino Basin area and Riverside Narrows exceed 1963 levels of extraction or export, recharge is required.

Key Charts for the Colton and Riverside Basin Areas

RIVERSIDE EXTRACTIONS FROM COLTON BASIN AREA AND RIVERSIDE BASIN AREA

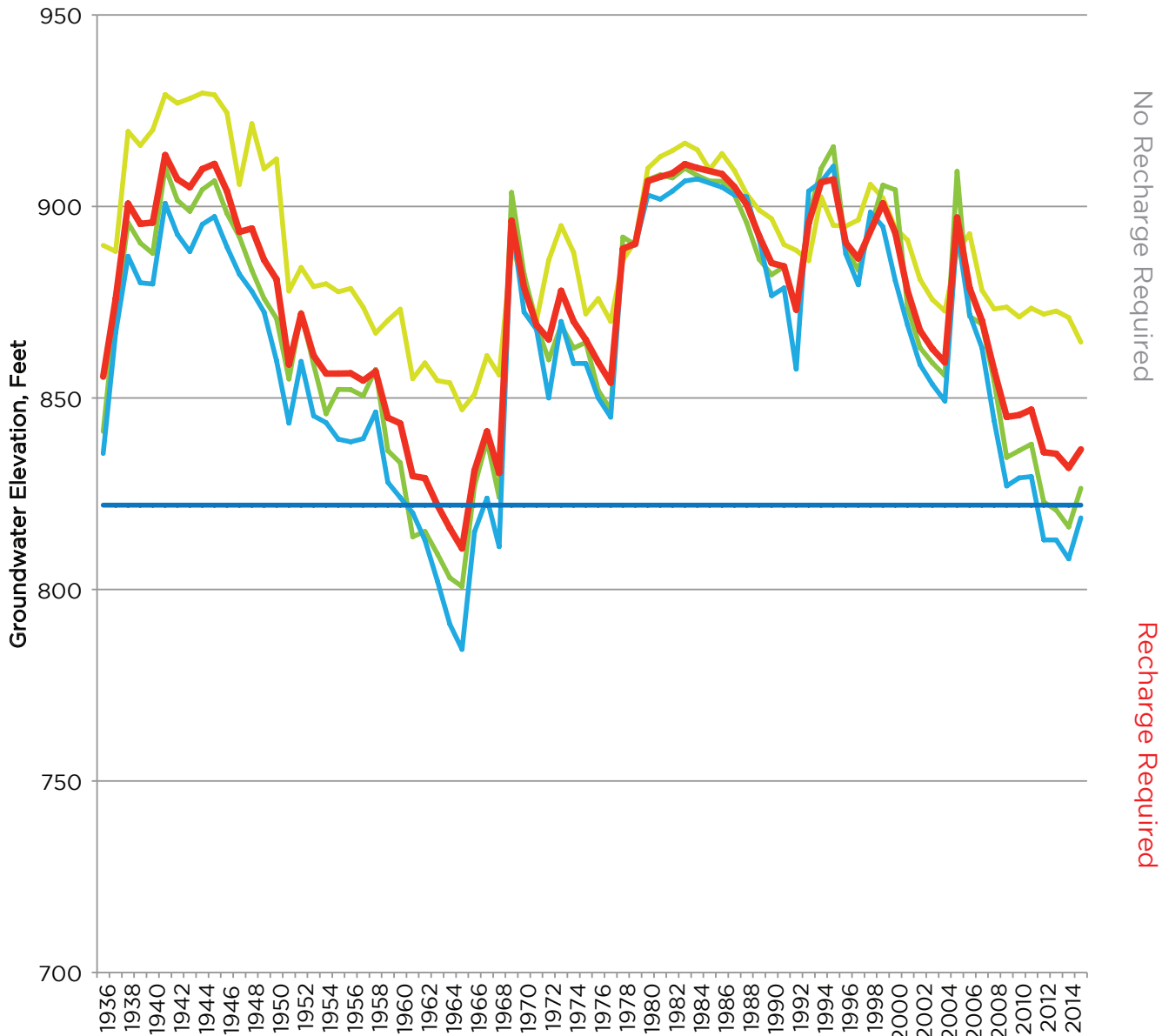


- ★ Credit - Return from New Conservation
- ★ Credit - Return from Imported Water
- ★ Credit - Storm Flow Conservation
- ★ Credit - Replenishment
- ★ Credit - [Under] New Export
- ★ Credit - Return from Excess Extractions
- ★ Credit - [Under] Extraction
- ★ Obligation - [Loss of] Return from Under Extractions
- ★ Obligation - [Over] New Export
- ★ Obligation - Land Use Conversion
- ★ Obligation - [Over] Extraction
- ★ Extractions
- ★ Limit - Total Extractions 1959 - 1963
- ★ Cumulative Credit or Obligation (2015)

Figure 3. Cumulative extractions by the Riverside Entities from the Colton and Riverside Basin Areas are within limits so no recharge is required by the Riverside Entities.

Colton and Riverside Basin Areas

SAN BERNARDINO ENTITIES



- ★ Johnson No. 1
- ★ Flume No. 2
- ★ Flume No. 5
- ★ Average of 3 Wells
- ★ 1969 Western Judgement Requirement

Figure 4. Average water levels remain above the limit so no recharge is required by the San Bernardino Entities.

Cumulative extractions by the Riverside Entities are within limits, so no recharge is required by the Riverside Entities. Average water levels are within limits, so no recharge is required by San Bernardino Entities.

Who is responsible?

A WATERMASTER COMMITTEE IS RESPONSIBLE FOR ADMINISTERING THE TERMS OF THE JUDGMENT UNDER THE CONTINUING JURISDICTION OF THE COURT.

The court created a watermaster committee (Watermaster) made up of one person nominated by Valley District and one person nominated by Western. The Watermaster is assigned the responsibility of administering and enforcing the terms of the judgment and submitting a written report to the court each year stating compliance.

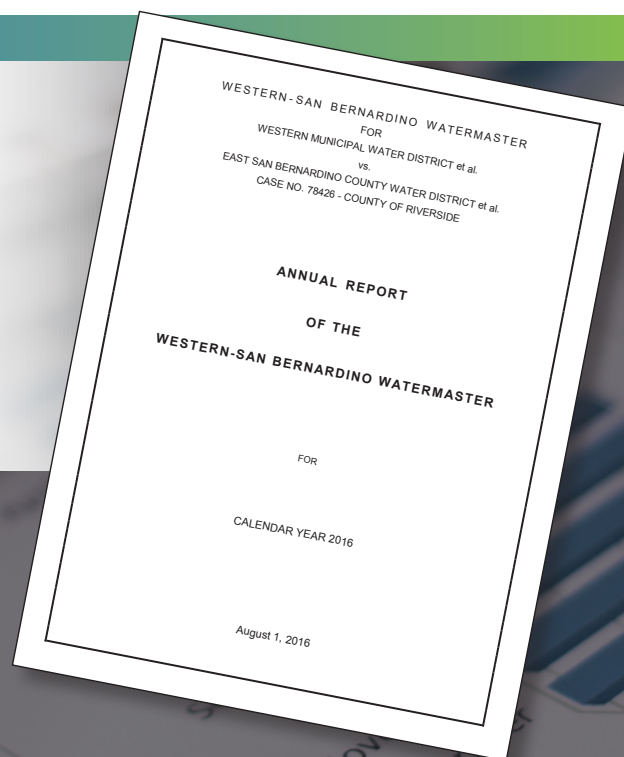
The court reserved continuing jurisdiction to review and re-determine whatever may be necessary to achieve the goals of the Judgment but specifically mentioned the following:

1. *Possible redetermination, from time to time, of the safe yield of the San Bernardino Basin Area and the corresponding adjustment in the amount of pumping and recharge by the Riverside and San Bernardino Entities*
2. *Possible appointment of a new Watermaster or change in the Watermaster committee structure*
3. *Possible increase or decrease in extractions*
4. *Possible change to the obligations imposed on Valley District should any inconsistencies in the two judgments impose a hardship on Valley District*
5. *Possible review of the amount of credit assigned to return flow if there results a drop in water levels which causes hardship on either party*
6. *Possible modification(s) that may be necessary if imported water is no longer available or is not available at a reasonable cost*

WHAT DOES THE WATERMASTER DO?

The Watermaster:

- *Checks compliance with the terms of the Judgment on an annual basis and submits an annual report to the court.*
- *Identifies and implements any possible changes that may be necessary in order to achieve the goals of the Judgment.*



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