

2021 – 2022 KERN COUNTY GRAND JURY

CAWELO WATER DISTRICT

Serving North Bakersfield Farmers Since 1965

November 3, 2021

CAWELO WATER DISTRICT

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Farmers Since 1965

SUMMARY:

Throughout Kern County we see signs that carry the message, “*where crops grow water must flow.*” The Cawelo Water District (District), has for many years found an unusual source of flowing water produced from nearby oil fields. Normally representing 30% of water needs, this drought year the produced water will represent approximately 70% of their needs.

According to an agreement dated 1976, with the City of Bakersfield (City), the District assisted the City when additional water was needed. Now that the District is in need, the City has not reciprocated.

PURPOSE OF INQUIRY:

The 2021-2022 Kern County Grand Jury (Grand Jury) reviewed past Grand Jury reports and discovered the District had not been investigated for many years. According to California Penal Code §933.5, the Grand Jury has the authority to investigate any Special District in Kern County.

METHODOLOGY:

The Grand Jury met with District staff, City officials, and researched topics covered in this report via internet and phone calls. The California Central Valley Regional Water Quality Control Board (Regional Board) was contacted, multiple documents were read, and news commentaries on related subjects assisted in compiling the report.

DISCUSSION OF FACTS:

The District, formed in 1965, is located at 17207 Industrial Farm Road, Bakersfield, CA 93308. In 1976, the District began distributing surface water to landowners’ acreage. When needed to adequately irrigate their crops, landowners may purchase additional surface water from the District.

Initially, all landowners were invited to participate in the surface water program. If they chose to opt out, then their irrigation needs were to be supplied by groundwater only.

A landowner cannot add additional acreage into the District unless equal acreage is removed. Currently, there is a waiting list to move groundwater acreage into the District.

Acreage that has used surface water is considered developed acreage and unirrigated for five years acreage is designated as undeveloped.

- A. The District is governed by a five member board elected to a four year term:
- Board members are elected as at-large candidates.
 - Elections are held every two years in regular voting cycles.
 - Terms are staggered.
 - Board Meeting Agendas are posted on a bulletin board near the office door and on the District website, <https://www.cawelowd.org/>
 - Approved Minutes are posted on the website.
- B. Each landowner member of the District receives one vote per acre of land.
- C. The District has 17 employees.
- D. The District is a member of the Kern County Water Agency.
- E. District's Water Conveyance and Delivery Systems:
- Lined Canals - 6.5 miles
 - Pipelines - 55 miles
 - 6 Pump Stations
 - 5 Reservoirs
 - 17 Groundwater Wells
 - 2 Recharge Basins
- F. District acres 41,993:
- Developed: 39,379
 - Undeveloped: 2,614
- G. Assessment for each acre:
- Special Assessment (covers debt of District)
 - Developed \$85.00 per acre
 - Undeveloped \$5.00 per acre
 - Standby Assessment (covers fixed costs associated with delivery of District's water)
 - Developed \$224.00 per acre
 - District has a "Water Toll" for four service areas due to lifting requirements. The elevation in the District rises 212 feet between the start of the conveyance system on the south end to the last acreage at the north end.
 - Lerdo \$47.00 per acre foot
 - South \$61.00 per acre foot
 - North \$104.00 per acre foot
 - Western \$83.00 per acre foot
 - District assessments are collected directly from landowners.
- H. The Sustainable Groundwater Management Act (SGMA) requires all water users to design a management plan to reduce groundwater usage that is impacting the underground water aquifer. The District has complied with SGMA mandates.

- I. The District, with the help and participation of interested landowners, has developed a District Landowner Recharge and Banking Project. This will allow landowners to bank excess water in the aquifer.
- J. The District's sources of water is composed of state suppliers, produced water from nearby oil production areas, other water districts, and groundwater from District wells:
- The District receives a contracted allocation from the State of California Central Valley Project of 38,200 acre feet per year.
 - This supply is subject to statewide water availability, set at 5% (1,910 acre feet) for year 2021.
 - Poso Creek is a waterway traversing the District.
 - The creek is dry approximately 80% of the time. Runoff can be diverted during the rainy season to recharge basins.
 - An additional benefit is the diversion of water can help prevent flooding downstream.
 - The District has access to Friant-Kern Canal water in excess years, which occurs infrequently.
 - Any available surface water can be purchased from other water districts or suppliers.
 - In this drought year of 2021, open market surface water is expected to cost \$1,000 to \$1,500 per acre foot plus transportation costs.
- K. The District has agreements with two oil producing companies, Chevron USA, Inc. (Chevron) and California Resources Corporation (CRC), located nearby:
- A White Paper titled, "Food Safety Project White Paper on the Reuse of Oil Field Produced Water for Irrigation of Food Crops in Central Kern County, California," dated January 28, 2021, published by the Regional Board and is available at:
https://www.waterboards.ca.gov/centralvalley/water_issues/oil_fields/food_safety/
 - When a barrel (42 gallons) of oil is extracted, a byproduct called produced water is also extracted.
 - 12 -15 barrels of water are extracted per barrel of oil.
 - Normally produced water has a high salinity, often 10 times greater than seawater.
 - This water is difficult to reduce the salinity to usable standards.
 - Produced water from this oilfield is, according to the oil producers and District employees, of an exceptional quality.
 - The produced water salinity from this oil field is lower.
 - As described by officials, this particular area is a sandy deposit, located at a higher level in the aquifer, therefore the produced water contains less dissolved solids.
 - *"Due to the geology and migration of oil, produced water from oil fields along the east side of the San Joaquin Valley tends to be of higher quality than that from oil fields located along the west side. This difference in quality enables produced water from specific oil*

fields along the east side of Kern County to be reused for irrigation without removal of salts.” (Food Safety Project White Paper)

- The term used for this produced water is “fresh water” as opposed to “ancient water” in oil deposits deeper and in rock formations.
- A benefit of this sandy deposit is that hydraulic fracturing, known as “fracking,” is not needed for extraction.
 - *“Facilities that generate produced water for irrigation have not used produced water from wells that have been hydraulically fractured.” (Food Safety Project White Paper)*

L. Chevron delivers 64 acre feet and CRC delivers 8 acre feet daily:

- *“Before it is distributed to irrigators for reuse, produced water is treated to remove sediments, hydrocarbons, and other chemicals. Typically, the irrigators receive the produced water in reservoirs where it is blended with other irrigation water and then applied to crops.” (Food Safety Project White Paper)*
- In normal water years, the produced water accounts for 30% of surface water brought into the District.
- In the drought year of 2021, produced water will account for approximately 70%.
- District staff states their use of produced water in irrigation is the most used in the nation.
 - It has been noted the District has received international calls inquiring how produced water can be utilized.

M. As the demand for produced water increased, the Regional Board established a Food Safety Panel (Panel) to evaluate the use of produced water and request more detailed water quality reporting from water districts relying on produced water:

- A large suite of tests (approximately 300 different components) is accomplished quarterly. Smaller subsets of components are completed monthly.
 - At discharge of water into District reservoir.
 - After mixing with either surface water or groundwater in the reservoir before entering District conveyance system.
 - Outside of District boundaries downstream of aquifer for any contamination.
- Collection and testing is performed by a professional laboratory.
 - Each test costs approximately \$4,000.
 - District personnel stated testing costs, beginning in 2016, have accumulated to approximately \$2,000,000.
- Results of all tests are provided to the Regional Board and the Panel, and are made available to the public.
 - The vast majority have been non-detectable or below drinking water quality standards – an even higher standard than what is required of irrigation water.

- According to the Regional Board, no studies to date have shown that irrigating food crops with produced water poses any threat to public health.
 - These results are part of an ongoing science-based program, as recommended by a third-party toxicologist.
- N. The State of California has what is commonly known as a dual-system of water rights. It is based upon two legal doctrines – riparian and appropriative:
- The riparian doctrine covers land adjoining a waterway. It provides the right to use water on that land so long as it has never been severed legally and physically from the water source, and is located within the watershed.
 - The appropriative doctrine allows those who used the water first retain a priority over those who come later. This is very important, under the doctrine of prior appropriation, the land on which the water is used need not be riparian to the water source.
 - This doctrine was formally recognized by the Legislature in 1872. It incorporated the procedure of posting and recording notices of appropriations into the Civil Code.
- O. In 1977, the City acquired approximately one-third of the appropriative water rights at the First Point of Measurement of the Kern River and all of the water transmission facilities and storage rights in Lake Isabella owned by Tenneco West, a private company, at a net cost of about \$14.25 million:
- To pay the cost of this acquisition, the City entered into a long-term agreement, Agreement No. 76-62, Agreement For The Sale of Kern River Water By and Between City of Bakersfield and Cawelo Water District (Agreement), dated May 25, 1976, along with four other water districts.
 - The City sold basic quantities
 - North Kern Water Storage District - 20,000 acre feet per year
 - Kern-Tulare Water District - 20,000 acre feet per year
 - Cawelo Water District - 27,000 acre feet per year
 - Rag Gulch Water District - 3,000 acre feet per year
 - In addition, the City sold what is commonly called “winter water” to the Rosedale-Rio Bravo Water Storage District.
 - Each district was to pay the City an agreed dollar amount each year to ensure there was a reliable revenue stream to aid in financing the actual purchase.
 - In dry years, if the agreed upon water supply could not be met, the shortage would be balanced in subsequent years.
 - The City completed balancing any water shortage to the District in 2017.
 - The Agreement was for a base period of 35 years, commencing January 1, 1977. The financial portion of the Agreement expired on December 31, 2012.
 - An extension clause in the Agreement regarding the purchase of excess water between the District and the City remains in effect.

- Agreement No. 76-62, Article 3.1(b), Extension Quantity states, *“City shall during the 32nd year of this Agreement determine whether all or any portion of the non-utility (excess) water which comprises the Basic Quantity for District, Kern-Tulare and Rag Gulch will not be required for the following purposes after the expiration of the Basic Term herein: ... City shall notify District in writing of such determination and the length of time such water or portion thereof will be available to District.”*
- The clause has an open-ended expiration date.
- The District, after consultation with their legal counsel, believes they were given the right to purchase some or all excess water the City wanted to sell in subsequent years.
- Excerpt from letter submitted by legal counsel of City to legal counsel of the District dated April 7, 2020, Re: Agreement Nos. 76-60, 76-61 and 76-62, *“On several occasions over the past year, representatives of the City of Bakersfield (“City”) have met with representatives of the Cawelo Water District (“Cawelo”) and the Kern Tulare Water District (“Kern Tulare”) to discuss Agreement Nos. 76-60, 76-61 and 76-62 (“Agreements”) between the City and Cawelo, and the City and Kern Tulare. Following those meetings, you forwarded me a draft letter on behalf of Cawelo and Kern Tulare which asked the City to confirm the “common understanding” of the parties regarding the future performance of the Agreements, and specifically section 3.1(b) of the Agreements. The City has reviewed the draft letter and has determined that it does not represent the “common understanding” of the parties, or at least the City, with regard to the Agreements. The City did not agree to any of the proposed terms and conditions in the letter, and does not believe the letter accurately reflects the substance of the discussions during the recent meetings between the City, Cawelo and Kern Tulare.”*
- If excess water is available, the City would communicate with the District via phone before formalizing the purchase.
 - The District has requested excess water purchases from the City since 2012.
 - The District has not been offered excess water to purchase since the financial expiration of the Agreement in 2012.
 - The City has sold excess water to other water agencies since 2012.
 - The City is using any excess water for recharging the aquifer to assist in meeting SGMA requirements.

FINDINGS:

- F1. The only measurable, sustainable, and reliable source of District surface water is produced water from the two oil production companies.

F2. The District will need an additional supply of surface water if drought conditions continue.

F3. Resolving the disagreement between the District and the City would be beneficial.

COMMENTS:

The 2021-2022 Kern County Grand Jury would like to thank the staff at Cawelo Water District for their willingness to furnish the information as requested. We would also like to thank the Regional Board staff and City officials for assisting in gathering information contained in this report. The Grand Jury would like to commend the Cawelo Water District for operating a well-functioning organization.

RECOMMENDATIONS:

R1. The District should investigate if more produced water is available from current or additional oil field production companies. (Finding F1)

R2. The District should seek to find additional water to offset any shortages before the next water year. (Finding F2)

R3. Negotiations with the City should commence before the next water season, reminding the City of the participation of the District in the acquisition of the Tenneco water rights. (Finding F3)

NOTES:

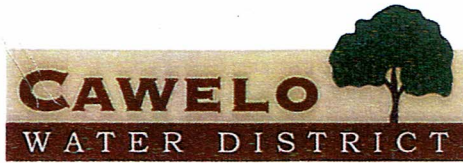
- The Cawelo Water District should post a copy of this report where it will be available for public review.
- Persons wishing to receive an email notification of newly released reports may sign up at: www.kerncounty.com/grandjury
- Present and past Kern County Grand Jury Final Reports and Responses can be accessed on the Kern County Grand Jury website: www.kerncounty.com/grandjury

RESPONSES ARE REQUIRED PURSUANT TO CAL. PENAL CODE § 933, SUBD. (C) AND 933.05 WITHIN 90 DAYS TO:

**PRESIDING JUDGE
KERN COUNTY SUPERIOR COURT
1415 TRUXTUN AVENUE, SUITE 212
BAKERSFIELD, CA 93301**

- **FOREPERSON**
KERN COUNTY GRAND JURY
1415 TRUXTUN AVENUE, SUITE 600
BAKERSFIELD, CA 93301

Reports issued by the Grand Jury do not identify individuals interviewed. Cal. Penal Code § 929 requires that reports of the Grand Jury not contain the name of any person or facts leading to the identity of any person who provides information to the Grand Jury



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David R. Ansolabehere, General Manager

November 11, 2021

Honorable Colette M. Humphrey
Presiding Judge
Kern County Superior Court
1415 Truxtun Avenue
Bakersfield, CA 93301

Dear Presiding Judge:

The Board of Directors of the Cawelo Water District ("Board") has reviewed at its meeting on November 11, 2021, the Kern County Grand Jury report on Cawelo Water District (District) for 2021-2022.

Pursuant to California Penal Code §§ 933 and 933.05 the Board wishes to advise the Presiding Judge of the Kern County Superior Court and the Grand Jury that the Board is in agreement with all of the Grand Jury's Findings (Findings 1-3).

The Board is also in agreement with each of the Recommendations set forth in the report, and wishes to advise the Presiding Judge of the Kern County Superior Court and the Grand Jury that the District is (and has been) investigating additional water sources that may be available to the District, whether the source is additional recycled produced water from neighboring oil and gas producers and/or other surface supplies that may become available now or in the future (Recommendations 1 and 2). The District will also, without delay, contact the City of Bakersfield to again inquire as to the willingness of the City to negotiate the potential acquisition of additional water supplies pursuant to the existing contract between the City and District (City Agreement 76-62) (Recommendations R3)

The Board also notes the observations of the Grand Jury that the District is a well-functioning organization. The Board is appreciative of the efforts made by the Grand Jury to familiarize itself with the District.

Finally, the District wishes to advise the Presiding Judge of the Kern County Superior Court and the Grand Jury that a copy of the Grand Jury's report was posted at the District's main entry area.

Sincerely,



David R. Ansolabehere,
General Manager
Cawelo Water District

cc: Board of Directors
Michael R. Bryant, Foreman Kern County Grand Jury
Robert W. Hartsock