

**SURPLUS WATER IS AN OXYMORON:
A Report on the Redwood Valley County Water District**

May 23, 2008

Summary

The Grand Jury investigated the sources of water available to the Redwood Valley County Water District (RVW / the District). Water is a precious resource in Mendocino County where seasonal rains alternate with long periods of summer drought. Located to the west of Ukiah, Redwood Valley is an unincorporated area with a population of approximately 5,000 needing water and 3,300 acres of designated agricultural land approved for irrigation water and frost protection.¹

Redwood Valley residents voted not to invest in constructing the dam that created Lake Mendocino. As a result of this decision, RVW was not awarded rights to pump lake water during the dry season. RVW holds only winter rights to pump water from Lake Mendocino between November 1 and April 30. RVW has the right to store 2800 acre feet (af) of winter water. This would be ample to meet current summer water needs, but RVW has no storage capacity and has yet to identify either the necessary funding or a reservoir location.²

With only winter water rights and no place to store winter water for later use, RVW has had to seek a source of summer water. Mendocino County Russian River Flood Control and Water Conservation Improvement District (Russian River District/RR) is the primary summer supplier of RVW water. RR was created in 1954 to invest in the construction of Coyote Valley Dam and reservoir (Lake Mendocino) and to share in the resulting water source. RR participated in the project with bond indebtedness of \$633,000. On the basis of this investment, the State Water Resources Control Board (SWRCB) awarded RR annual water rights to 8,000 af of Lake Mendocino water. RVW remains outside the boundaries of the Russian River District and depends on “surplus water,” defined as water that remains after RR has supplied the needs of its member clients.

The Sonoma County Water Association (SCWA) invested \$6.2 million in construction of the dam and received annual pumping rights to 37,500 af of Lake Mendocino water. RVW has an agreement to purchase up to 2,400 af of surplus water from SCWA, but has yet to exercise this option.

There are two kinds of water sources, percolated and underflow. *Percolated water* is precipitation that has been absorbed by the earth; *underflow* is water flowing underground adjacent to a river or a stream. RVW and some residents can still drill wells to obtain percolated water; however, the local water table is dropping and water quality is poor. Furthermore, the State of California is

¹ Mendocino County Population and Housing Projections 2000-2025 available at www.co.mendocino.ca.us

² Water is measured in acre feet (af); each af is equivalent to 325,851 gallons. It is the amount of water required to cover one acre of land to a depth of one foot.

attempting to define all water as *underflow*, eliminating the regulatory category of *percolated water*. Conservation and storage are critical to ensuring Redwood Valley's water supply.

Methods

The Grand Jury visited the RVW water treatment facility, interviewed management staff and board members and reviewed numerous documents including: RVW Ordinances and Resolutions, financial statements and records, litigation and complaints, consultant contracts; and State Water Resources Control Board's (SWRCB) Water Quality Reports, decisions, permits and licenses affecting RVW. Historical records including those of Russian River District were examined and an interview was conducted with the District's Executive Director.

Background

Prior to 1979, most Redwood Valley residents met their water needs from private wells. Failing to anticipate the impact of growth on their water supply, they had resisted the increase in property taxes that would have been necessary to invest in the Coyote Dam project in 1954. The need for a more reliable water supply grew with the population, and RVW was registered as a California Special District in 1964. Studies conducted in the early 1970s resulted in the recommendation that a water system be established to supply residents with both agricultural irrigation (untreated *ag* water) and domestic (treated) water. The Bureau of Reclamation concurred that the project was feasible and funded construction which began in 1977. The system went on line in 1979.

Findings

1. Early Redwood Valley residents met their domestic and ag water needs from seasonal streams and private wells.
2. When many wells are drilled into the same water table, the water level falls and some wells will no longer produce water throughout the year.
3. Lake Mendocino was created by Coyote Dam, which was built, primarily with Federal funds, by the U.S. Army Corps of Engineers as a flood control, conservation and recreation project.³
4. The Corps has the responsibility to monitor and maintain the "flood control pool" of Lake Mendocino. Initially, the maximum lake level was established as 737.5' (this is approximately 70,000 af of stored water). When water rises above this established flood control level, some of it is released.
5. In order to increase the amount of stored water for conservation, the flood pool must be encroached upon. For 2008 SCWA ordered that the lake level be increased to 760' effective April 1, 2008. Each additional foot in the level of the lake adds 2,000 af of storage.

³ Coyote Dam was the first multi-purpose dam built by the US Army Corps of Engineers to provide flood control, water conservation and recreation.

6. Increasing the level of the lake impacts natural habitat and may limit access to recreational areas. The dam was engineered to safely store water up to 764 feet.
7. When water falls below the established flood level, Sonoma County Water Agency, by agreement with RR, takes control of the lake for conservation and recreation purposes.
8. Coyote Dam was built at a cost of \$18.3 Million with a combination of Federal funding and local investment.
9. RR was formed in 1954 to contribute to the construction of the dam and to secure the right to use water from the lake. RR participated with a bond of \$633,000.
10. SCWA invested \$6.2 Million. Water from Lake Mendocino was distributed based on investment.
11. Redwood Valley ranchers and other local residents voted not to invest in construction of Coyote Dam. As a result of this decision, Redwood Valley has no summer pumping rights to water from Lake Mendocino. RVW remains outside the boundaries of RR and depends primarily on “surplus water” from RR and SCWA.⁴
12. Redwood Valley County Water District (RVW) was formed in 1964 as a California Special District. In the 1970s, a collective of ranchers, farmers, and other residents secured funds from the Federal Bureau of Reclamation to develop a water delivery system.
13. Construction of the RVW water treatment plant and distribution system began in 1977; the system went on line in 1979 with 95% domestic and 50% of the agricultural irrigation system completed. It is the only dual service (domestic and agricultural water) district in the County.
14. When the District was established the owners were not required to cap their wells. Additional wells may still be drilled, but the water table continues to fall and water quality is poor.
15. RVW has not repaid its Bureau of Reclamation loan. This debt hampers the District’s ability to borrow funds even though loan payments have been temporarily suspended by the Bureau.
16. In May 2006, Senate Bill 2298 was introduced in the U.S. Senate to make this loan junior to new borrowing by RVW for system improvements. As of April 2008, the bill is still pending in committee.
17. Redwood Valley pumps its water from Winery Point, at the southwest corner of Lake Mendocino. Gravity flow carries the water 4.5 miles to a 22-million-gallon holding pond at the treatment plant site.
18. Two pipelines carry water from the treatment plant to end users: one carries treated water; the other supplies untreated ag water. Both support fire protection.
19. Electricity is a major expense in the treatment and delivery of water. Redwood Valley pumps water from Lake Mendocino at night, when electric rates are lowest. The District has recently contracted to have solar panels

⁴ “Surplus water” is defined by the State Water Resources Control Board as “...water that has not been put to beneficial use by (a district’s) clients.”

- installed. The agreement allows for a lower price for the electricity at night; during the day excess electricity will be sold to PG&E.
20. Redwood Valley currently serves about 1150 individually metered domestic customers plus master meters at two mobile home parks and the Redwood Valley Rancheria, and has about 200 ag water hook-ups.
 21. In 2006, RVW customers used an average of 563,479 gallons per day (1.73 af/day) of treated water and an average of 939,772 gallons per day (2.88 af/day) of ag water. Water used for fire protection is not metered.
 22. State Water Resources Control Board issues all permits to draw, store and/or use surface water.
 - SCWA holds Permit 12947-A to use up to 37,544 af of Lake Mendocino water when the amount of stored water is at least 30,000 af;
 - RR holds Permit 12947-B for 8,000 af of Lake Mendocino water when the stored water is at least 30,000 af.
 - RVW holds Permit 17593 to pump water from Lake Mendocino only during the winter, from November 1 to April 30. The permit allows RVW to pump up to a maximum of 4,900 af for frost protection and domestic purposes.
 - Permit 17593 also allows RVW to store up to 2,800 af of its total 4,900 af winter pumping allotment to be used during the summer, from May 1 to October 31. The stored water may be used for domestic purposes and/or for agricultural irrigation of 3,300 acres of specifically designated agricultural land within the RVW District.
 23. RVW has no permit for direct access to Lake Mendocino water between May 1 and October 31. Prior to 1980, RVW had a Memorandum of Guarantee (MOG) requiring RR to provide RVW with up to 4,000 af of water per year.⁵
 24. The Russian River District sued RVW to break the terms of the MOG. The suit ended in a stipulated judgment dated May 31, 1980 ordering that RR was only obligated to sell “surplus” water to RVW. This judgment superseded all prior agreements.
 25. Under the judgment, RVW paid the Russian River District \$276,992 for water used from the District’s inception in 1954, “as though they were a member”.⁶ Under the terms of the judgment, RVW received the right to “surplus” water, but not to membership.
 26. Of the 8,000 af allotment that RR controls, just over 3,600 af are committed to several member water companies within its boundaries. An equal amount is committed by contract to individual water users along the river. RR has exhausted its entire annual allotment of 8,000 af twice.
 27. If RR members use their annual water allotments, only 700-800 af of “surplus” water would be available to RVW from the RR allotment. In 2007, due to conservation efforts by RR customers, RVW was able to purchase 1,900 af.

⁵ RR added RVW as a “place of use” on its SWRCB Permit 12947-B.

⁶ The total billed included taxes and interest.

28. The 1980 judgment requires RR to carefully monitor the beneficial use of its 8,000 af allotment. RVW is required regularly to inform RR of its metered water use. RVW reports monthly to RR and posts their daily water use on the RVW website. Mandatory conservation measures are imposed when projected demand approaches RR's 8,000 af allotment or when storage in the lake falls below 30,000 af.
29. In addition to its primary summer water source agreement with the Russian River District, RVW has an agreement with Sonoma County Water Agency to purchase up to 2,400 af of SCWA "surplus" water.⁷ As yet, RVW has not received any water from SCWA.
30. RR water and RVW's access to "surplus" water are further impacted by decisions of multiple government agencies including, but not limited to the:
 - Federal Energy Regulatory Commission
 - National Marine Fishery Service
 - Federal and State Environmental Protection Agencies
 - California Department of Fish and Game
31. As other users of the 8,000 af RR allotment increase their water demands, the amount of surplus remaining for RVW will diminish.
32. A cutback of water pumped from the Eel River into Lake Mendocino may affect water available to downstream users.
33. In 1989, a Preemptory Writ of Mandate was issued by the Superior Court of California, County of Mendocino, which required that RVW be prohibited from making any net increase in physical domestic service connections in the District. The moratorium on new hook-ups remains in place.⁸
34. The SWRCB requires any water district under a moratorium to seek water, water rights, and/or water storage.
35. Water districts seeking water well sites may not drill in a site that would draw underflow from a river, stream, reservoir or lake without a permit. Wells drilled by water districts must seek only percolated water unless they have a permit to do otherwise.
36. RVW is currently drilling a well on the property where the water treatment plant is located.
37. In 2001, the district issued a self imposed moratorium on any future ag hook-ups.
38. A Cease and Desist Order was issued by SWRCB against RVW on February 9, 2005 and, on May 19, 2005, it was determined that RVW was delivering water for domestic use to four locations that are not authorized under Permit 17593 because they are outside the District's place of use.
39. RVW has been delivering irrigation water that is diverted directly from Lake Mendocino. The State Water Resources Control Board holds that RVW is violating its permit by doing this. RVW states that it is not pumping under the

⁷ SCWA has added RVW as a "place of use" under its SWRCB Permit 12947-A.

⁸ RVW may issue a limited number of hardship connections subject to SWRCB approval.

- storage portion of its permit, but using “surplus” water from the agreement with RR. RR verified that RVW can use its purchased “surplus” water for either domestic or agricultural purposes.
40. In August 2007, drought conditions led RVW to advise its customers to cutback water use by 40%. Ag meters were shut off in October. In November, Lake Mendocino dropped below 30,000 af and RVW declared a State of Emergency.
 41. On October 4, 2007, Sonoma County notified RVW that the SWRCB had ordered Sonoma County to reduce pumping from the Russian River by 15%; therefore, RVW should make water conservation a priority.
 42. In 1990, RVW contracted with a consulting engineering firm for a study and cost analysis for water storage alternatives. The estimated cost of a 50 af storage pond on the RVW plant site was \$315,000. A 2,000 af storage reservoir would cost up to \$7.7 Million.
 43. Based on RVW recorded data, Redwood Valley’s actual summer use in 2006 (May 1-October 31) was 435.93 af of treated domestic water and 982.26 af of ag water for a total of 1,418.29 af.

Recommendations

The Grand Jury recommends that Redwood Valley County Water District:

1. locate a site or sites for water storage; (Findings 22-23, 27-31, 33-43)
2. identify funding sources (grants, loans, bonds and increased user fees) to develop water storage; (Findings 15, 16, 42)
3. develop ag water management policies to ensure that the water needs of domestic users are met; (Finding 21, 43)
4. develop a water management plan that anticipates both growth and low water periods. (Findings 2, 11, 14, 20-21, 27-31, 33-43)

Comments

Water rights are allocated by SWRCB on a first come first served basis. Because Redwood Valley voted not to invest in the dam that created Lake Mendocino a half century ago, it now has only limited winter pumping rights to water to the Lake’s water and a tenuous claim to the limited supply of “surplus” water from RR and SCWA. Hindsight is 20/20, but the Redwood Valley community must focus on the future. Wells dry up as the water table recedes. “Surplus” water may be expected to decline with further development and increased demand by primary users. Residents cannot depend on “surplus” water, especially in the dry years. Today RVW has limited options: it can use less water, get more, and/or store up to 2,800 af of the 4,900 af that it is entitled to pump during the winter months. These options are clear to see but difficult and costly to achieve. RVW’s situation is made even more difficult by numerous regulatory agencies, often with overlapping or even contradictory rules. The

entire Redwood Valley community, dependent on RVW water for its livelihood and for living, must confront the water challenge and work with the Redwood Valley County Water District for solutions that benefit all.

Required Responses

Redwood Valley County Water District (All Findings; All Recommendations)

Mendocino County Russian River Flood Control and Water Conservation Improvement District (Findings 5, 6, 9, 23-28, 30-30)

Mendocino County Water Agency (All Findings; Recommendations 1, 2, 4)

Mendocino County Board of Supervisors (All Findings; All Recommendations)

The Grand Jury Report Process

The role of the Mendocino County Civil Grand Jury is to oversee and shed light on local and County government. Jurors conduct oversight inquiries and investigate matters of public interest. Any individual can file a complaint with the Grand Jury using forms available online at www.co.mendocino.ca.us/grandjury.

A Grand Jury inquiry begins when a topic is approved by a minimum of 12 of the 19 seated Jurors. A committee then undertakes extensive research and drafts the report.

Findings are verified against documents and interview notes and are reviewed for accuracy with key individuals in the agency of interest. The draft is then reviewed by an internal Edit committee and must receive approval by the Full Panel. It is then sent to County Counsel and to the Presiding Judge for final review before public release.

Members of the 2007/2008 Grand Jury

Bob Coppock
Brad Hunter
Kathy Johnson
Nancy Kleiber
Lois Lockart
Chas Moser
George Pacheco
Lillian Pacini
Carolyn Pavlovic
Barbara Reed
Wendy Roberts
James Schweig
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The cover photo for this report was taken at Point Cabrillo Light Station Historic Park by Donald F. Roberts. This report was produced with the generous assistance of Tony and Maureen Eppstein. Information on Point Cabrillo State Historic Park and the Lighthouse Inn is available at www.pointcabrillo.org