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Compliance Order No. 02-03-01CO-002

STATE OF CALIFORNIA

DEPARTMENT OF HEALTH SERVICES

IN RE: Millview County Water District
Water System No.2310006
Ukiah, CA 95482

TO: Mr. Tim Bradley, General Manager
3081 North State Street
Ukiah, CA 95482

FINDINGS OF FACT

Millview County Water District (hereinafter, District) operates a community water system that supplies domestic water to 1462 service connections within its service area just north of the City of Ukiah, Mendocino County. The District also supplies water to the Calpella County Water District in accordance with an agreement signed on July 1992. This agreement limits Calpella to a quantity not to exceed 100 gallons per minute (gpm).

The District currently utilizes 18 shallow wells along the Russian River as its source of supply. It also has a direct intake facility in the Russian River that pumps either to a pond that serves to recharge the shallow well field or directly to its treatment plant. The Department determined through its May 13, 1999 inspection of the system that the capacity of the well field and direct intake facility is 2.64 millions gallons per day (MGD). This was reaffirmed by the system operators.



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SFD 113 (REV. 3/05)
OSP 99 10924

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The District has an emergency intertie with the City of Ukiah that can provide approximately 300 gpm. However, flow is by gravity and tank levels in the District system must drop by at least 10 ft for the intertie to be functional.

The water from the 18 shallow wells has been determined to be groundwater under the direct influence of surface water and is treated by direct filtration and disinfection. The treatment plant has a capacity of approximately 3.9 MGD and is in compliance with surface water treatment regulations.

Within its distribution system, the District has a total of 8 storage tanks with a total volume of 2.21 million gallons (MG) in 3 pressure zones. Zone 1 has with the majority of connections including industrial and commercial customers and has a total storage volume of 1.88 MG.

There is no standby power in the system and, in the event of a major power outage from the current power shortage in the state or a natural disaster such as an earthquake, the system would not be able to operate its treatment plant or pump water from its clearwell storage tanks into the distribution system.

Section 64562, Title 16, California Waterworks Standards, requires all public water systems to ensure that sufficient water is available from sources and distribution reservoirs to adequately, dependably and safely supply the total requirements of all users under maximum demand conditions before agreement is made to permit additional service connections into its system. The following assessment of source and distribution capacities and dependability shows that the District system does not comply with this standard.

Source of Supply Adequacy

The following table summarizes water use in the District for the 6 year period for which data is currently available (1995-2000).



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Year	Connections	Maximum Day MGD	Maximum Month - MGD	Annual MGD
1995	1252	2.8	2.2	360.0
1996	1331	2.8	2.1	465.6
1997	1343	2.6	2.2	475.4
1998	1347	2.8	2.2	444.4
1999	1379	2.6	2.3	501.4
2000	1462	N/A	2.4	503.1

As noted above, for the 5 year period 1995-99, the daily maximum demand on the Millview system has equaled or exceeded its total source capacity of 2.64 MGD for every year. Additionally, the average day during the month of maximum demand in 2000 was 92% of the District's current source capacity.

The maximum day production was not reported accurately for calendar year 2000. However, over the five year period, 1995-1999, the per connection production on the day of maximum demand has varied from a low of 1,885 gallons per day per connection (gpcd) to a high of 2,236 gpcd. Applying these figures to the current number of connections in the water system would indicate a required maximum day production of 2.8 to 3.3 MG. These values exceed the District's production capacity by six to 25 percent, respectively.

Section 64564, California Waterworks Standards requires that the needed source capacity shall not be less than the maximum day demand. In the case of the Millview County Water District this means a minimum required source capacity of 2.8 MGD to be in compliance with Section 64652. With a total source capacity of 2.64 MGD, the District does not comply with this section of the California Waterworks Standards.

In actual operating experience, the operator of the system reported that on several occasions during the last several years, the system has been unable to keep up with demands resulting in a dramatic drop in storage tank levels that left the system vulnerable in the event of a high demand occasion such as a fire. A specific example of this occurred during the summer of 2000. As a result of a main break in the distribution system, it was necessary for the District



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to arrange for Redwood Valley County Water District to supply Calpella and obtain additional supply through its emergency interconnection with Ukiah in order to meet peak demands.

Distribution Storage Adequacy

Section 65462, California Waterworks Standards, requires an assessment of the entire water system as well as a zonal analysis. In making this assessment, the Department used the following equation:

Required Storage Volume = Average day demand + 25% of Maximum day demand + fire flow

Using the maximum production per connection figures over the last 6 years, the average and maximum day demands for 1462 connections would be 1.42 MGD and 3.26 MGD respectively. The District's water system is used for fire protection. A fire flow rate of 1500 gpm for a sustained 2-hour period (0.18 MG) is required based on development densities in the District. These figures result in a total system storage requirement of 2.42 MG which exceeds the available system storage (2.21 MG) by 0.21 MG.

Zone one is the most critical zone in the District with over 90% of the connections and demands. In 1999, the Department's inspection report showed 1218 connections out of a total of 1351 in zone one or 90 percent of the total. For purposes of this assessment, it is assumed that zone one contains 90 percent of the reported number of 1462 for the year 2000. This gives a total of 1315 connections for Zone one and a total storage requirement of 2.20 MG. With an available storage volume of only 1.88 MG, it appears the District has a storage capacity deficit in zone one.

Source Reliability

Currently, the only backup supply for the District's system is the Ukiah emergency interconnection which is only able to supply up to 0.43 MGD or 15% of the maximum day demand of 2.8 MGD. Additionally, the District's storage tanks in Zone one must drop by 10



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feet to make the interconnection work. This reduces the system's total storage volume to an unacceptable level.

The District lacks standby power to ensure delivery during periods of extended power outages. While it is possible for the District to obtain an exemption from PG&E during the current period of rolling blackouts, the lack of standby power does pose a problem of outages occurring as a result of natural disasters such as earthquakes.

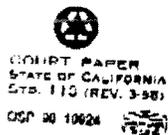
CONCLUSIONS OF LAW

Based on the above Findings of Fact, the Department finds that the Millview County Water District presently has insufficient source and distribution storage capacity and lacks adequate source reliability to adequately, dependably and safely serve its existing 1462 customers as required by Sections 64562, and 64568, Chapter 16, Title 22, CCR.

ORDER

Pursuant to Section 116655(a) of the California Health and Safety Code, the Department hereby orders the Respondent, Millview County Water District, to do the following to ensure that the water supplied is sufficient and at all times, pure, wholesome and potable:

1. The Millview County Water District shall submit to the Department not later than September 1, 2001, an engineering analysis of the adequacy of the water system's source of supply in accordance with Section 64562 and 64568. The analysis shall include, but is not limited to, an assessment of the adequacy of source capacity, transmission mains capacity, distribution storage capacity, the emergency interconnection with Ukiah and the need for standby power. This analysis shall identify and quantify deficiencies in these areas and include recommendations for correcting the deficiencies and a schedule for making the required improvements.



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- 2. The Millview County Water District shall develop and implement a water conservation program to reduce overall system demands. A copy of this plan shall be submitted to the Department for review and approval by July 1, 2001.
- 3. Prior to adding any new service connections the Millview County Water District must apply for and receive an amended water supply permit from the Department approving the new connections.

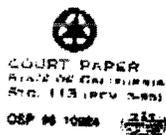
The Department reserves the right to make such modification to this Order as it may deem necessary to protect public health and safety. Such modification may be issued as amendments to this Order and shall be effective upon issuance. All submittals required by this Order shall be addressed to:

Mr. Bruce Burton, District Engineer
Mendocino District
California Department of Health Services
50 D. St, Suite 200
Santa Rosa, CA 95404

The State of California shall not be liable for any injuries or damages to persons or property resulting from acts or omissions by the Respondent, its employees, agents or contractors in carrying out activities pursuant to this Order, nor shall the State of California be held as a party to any contract entered into by the Respondent or its agents in carrying out activities pursuant to the Order. By issuance of this Order, the Department does not waive any further enforcement actions.

PARTIES BOUND

This Order shall apply to and be binding upon the Respondent, its officers, directors, agents, employees, contractors, successors and assignees.



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SEVERABILITY

The requirements of this Order are severable, and the Respondent shall comply with each and every provision thereof notwithstanding the effectiveness of any provision.

CIVIL PENALTY

Section 116650(e) of the California Health and Safety Code allows for the assessment of a civil penalty for failure to comply with any order issued for noncompliance with any Department regulation or order, other than a primary or secondary drinking water standard, in an amount not to exceed two hundred dollars (\$200) per day for each day as of the date of violation of the order. Failure to comply with any provision of this order may result in the Department imposing a civil penalty of up to \$200 per day on the Millview County Water District.



Catherine S. Ma, P.E., Chief
North Coastal Region
Drinking Water Field Operations Branch

May 31, 2001
Date



cc. Mr. John Rogers, Mendocino County Environmental Health Department
Ms. Pamela Townsend, Mendocino County Planning Department
Calpella County Water District

CERTIFIED MAIL # 1722 8984

