Beneficial Use of Water Stored in Lake Mendocino

December 17, 2014 Rescoping Charette

Presented by Janet K.F. Pauli, Chair
Mendocino County Inland Water and Power Commission
Non Federal Sponsor for Coyote Valley Dam Raise Feasibility Study

The Mendocino County Inland Water and Power Commission

A Joint Powers Authority formed in 1996 to protect our water supply.

Member agencies are the County of Mendocino, City of Ukiah, Redwood Valley County Water District, Mendocino County Russian River Flood Control and Water Conservation Improvement District and the Potter Valley Irrigation District.

All Commissioners are elected Board members.

Lake Mendocino at the end of October, 2014

Why does Coyote Valley Dam need to be raised?

Simple answer… Lake Mendocino is **inadequate** to assure the water supply for existing demands in back to back drought years.

2013-2014 is the current example, but this has happened in the past. Lake Mendocino was not designed to store enough water for two dry years in a row…in other words **it cannot provide carryover storage**.

We are also concerned about the water diverted from the Eel River above Lake Mendocino through the PG&E owned Potter Valley Hydroelectric Project and the upcoming FERC relicensing.

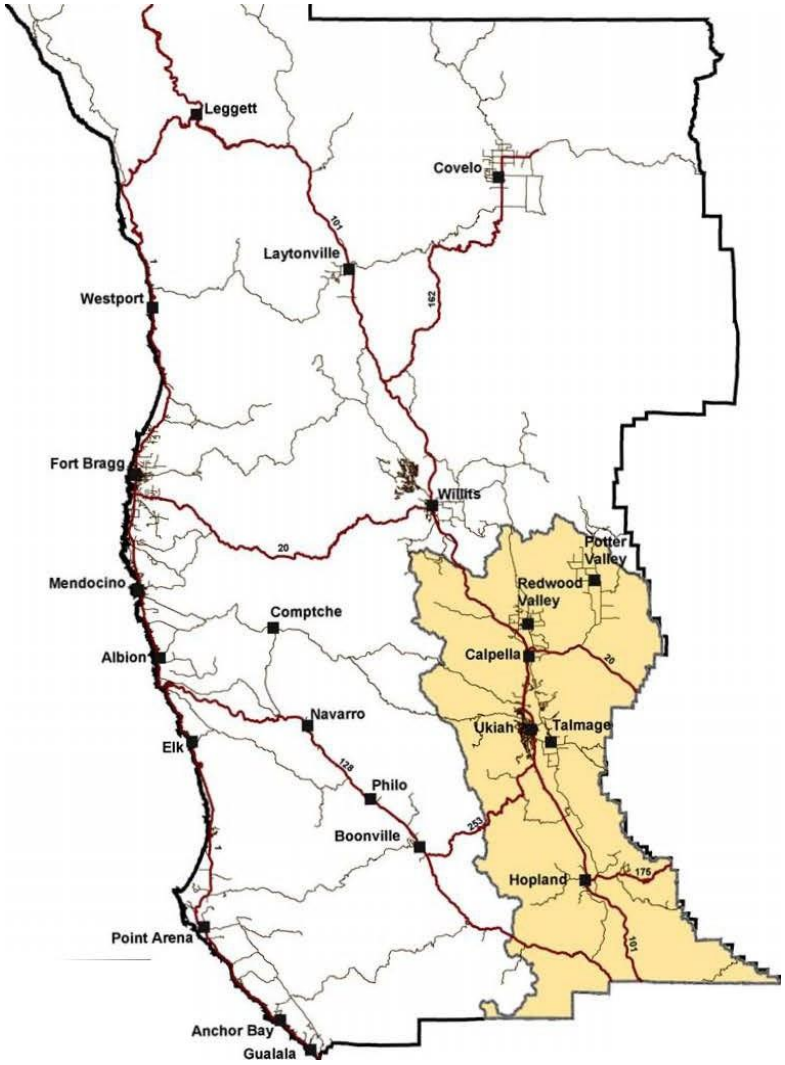
We do not have reliable alternative sources of surface or ground water.

This is not an issue of future demand, or an issue of increasing water supply for increased agricultural production, this is simply an issue of **insufficient storage** in today's world.

What is at stake?

Mendocino County Communities Dependent Upon Water Stored in Lake Mendocino

- Redwood Valley
- Calpella
- City of Ukiah and Ukiah Valley
- Talmage
- Hopland



Redwood Valley County Water District

- RVCWD chartered 1964, began service 1977
- Pump water from storage in Lake Mendocino
- **4,000 domestic water customers, few commercial/public customers, 200 agricultural customers. 2,200 acres of grapes, pears, olives and nuts**
- Value of crops harvested in 2012**, $15,600,000**
- Ten year average water use; domestic 528 acre feet, agriculture 1,066 acre feet
- Domestic hookup moratorium in place since 1989 and a self imposed Ag hookup moratorium since 2001
- Developed a Conservation Ordinance in 2007

Millview County Water District

- Formed in 1956
- Provides water for **1,608 connections**, of which 1,333 are residential, 234 commercial/industrial and 41 fire service connections. Estimated population is **5,100**.
- Ten year average water use **1,450 acre feet**.
- Has an emergency inter-tie with the City of Ukiah.
- 2009 had a State mandated 50% reduction due to water shortage.
- MCWD has a three stage conservation plan based on storage levels in Lake Mendocino

Calpella Water District

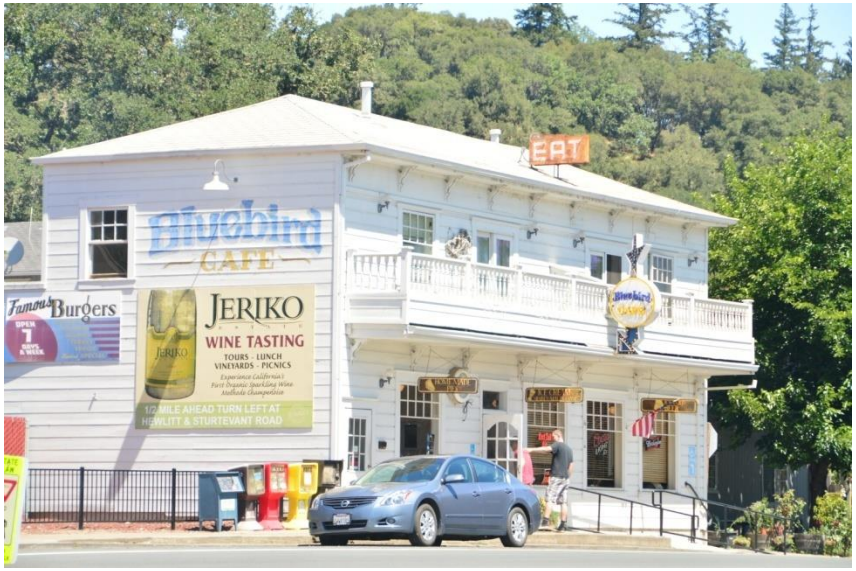
- Incorporated in 1955.
- Currently provides water for **140** residential and **25** commercial water service connections.
- Ten year average water use has been approximately **95 acre feet per year.**

City of Ukiah

- Incorporated in 1876
- Current population **16,000**, greater Ukiah Valley **40,000**
- Water supply is from the Russian River and shallow wells
- Ten year average amount of water diverted from the Russian River is **2,028 acre feet**.
- 64% residential, 30% commercial, 6% landscape/other
- Have a Water Conservation Coordinator on staff and a very active water conservation program in place

City of Hopland

- Incorporated in 1879
- Population just over **1,000**
- All of their water is from the Russian River via a RRFC Water Supply Agreement
- Ten year average water use **192** acre feet
- 344 connections, majority is residential

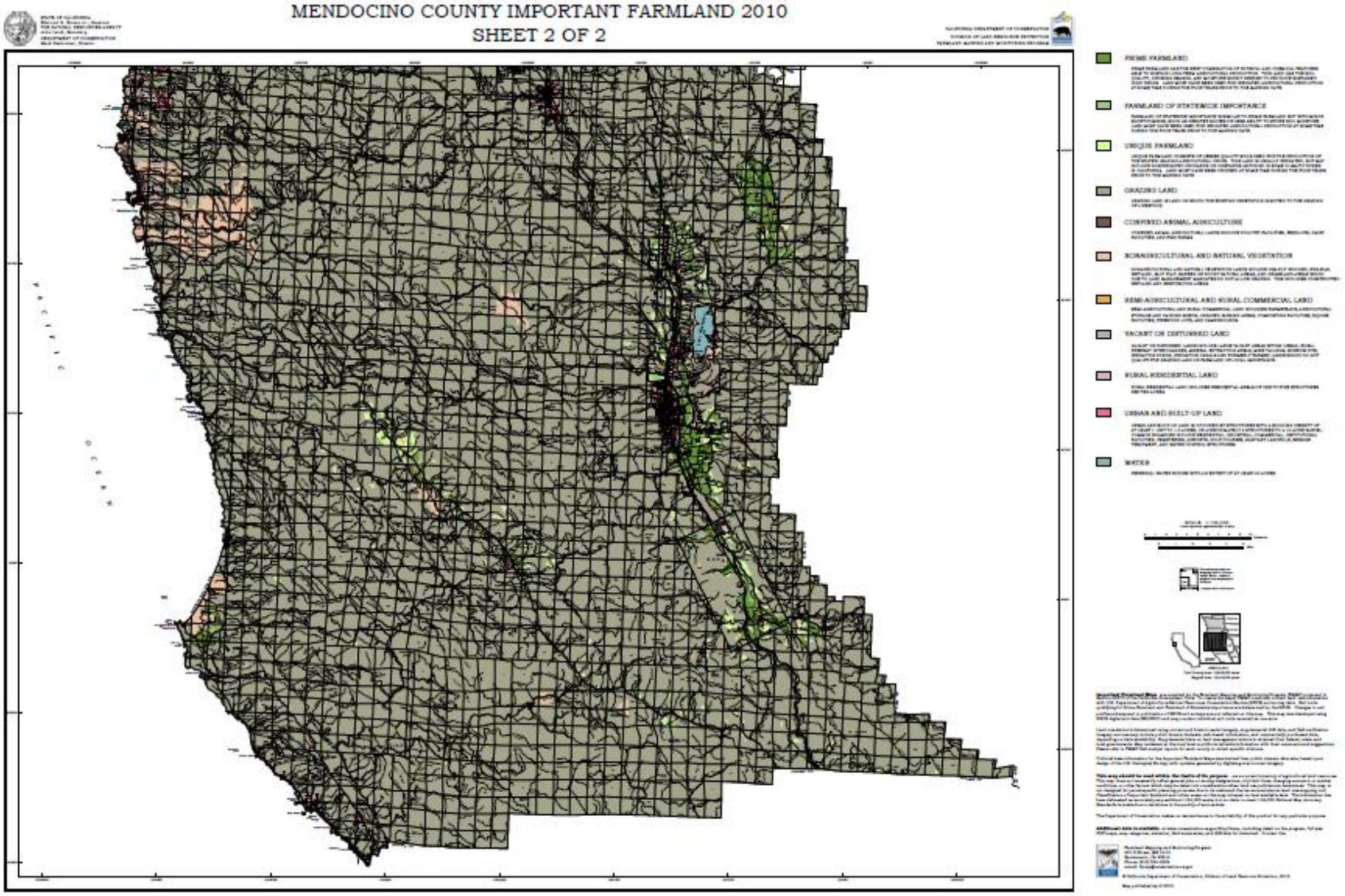


Mendocino County Russian River Flood Control and Water Conservation Improvement District

- Formed in 1959 to carry the bond for Mendocino County's share of the construction costs of building Coyote Valley Dam
- Holds right to 8,000 acre feet of water stored in Lake Mendocino
- Currently has 41 Ag contracts and serves them approximately 3,800 acre feet of water per year
- Also has Water Supply Agreements with City of Ukiah, Willow CWD, Millview CWD, Calpella CWD, Rogina Water Company, and Hopland PUD

Mendocino County
RUSSIAN RIVER FLOOD CONTROL
& Water Conservation Improvement District

Agricultural Economy Along the Russian River Corridor in Mendocino County



Source: CA Department of Conservation, Natural Resources Agency

2012 Vine and Tree Crop Values for the Ukiah, Sanel and Hopland Valleys*

Commodity	Acres	Total Value
Wine Grapes (red)	5,658	$33,480,000
Wine Grapes (white)	3,716	23,450,000
Bartlett Pears	1,026	7,336,000
Other Pears	86	1,569,000
Olives	41	88,000
Walnuts	10	54,000
	10,537	$66,977,000**

•Compiled by Chuck Morse, Mendocino County Agricultural Commissioner.

** Does not include any multiplier valuations.

Economic Impacts Directly Related to Mendocino County Agricultural Production Dependent Upon the Water Stored in Lake Mendocino

Five year crop production average **$67,000,000**.

Annually, **1,200** people are directly employed in crop production.

Over **600** businesses are supported indirectly by vineyard crop production (tourism, service industry, recreation).

They employ **7,500** people and have an annual payroll of **110 million dollars.**

Non employer businesses supported by the grape industry have annual receipts of over **21 million dollars**.

The Wine Industry Supported by Grapes Grown in Vineyards Irrigated Using Water from Lake Mendocino

7.6 million gallons of wine annually produced from irrigated vineyards in the Russian River watershed in Mendocino County.

260 million dollars of wine are produced from the grapes grown along the Redwood Valley to Hopland reach of the Russian River.

In summary, irrigated agriculture <u>conservatively</u> contributes 458 million dollars per year to the economy of Mendocino County.

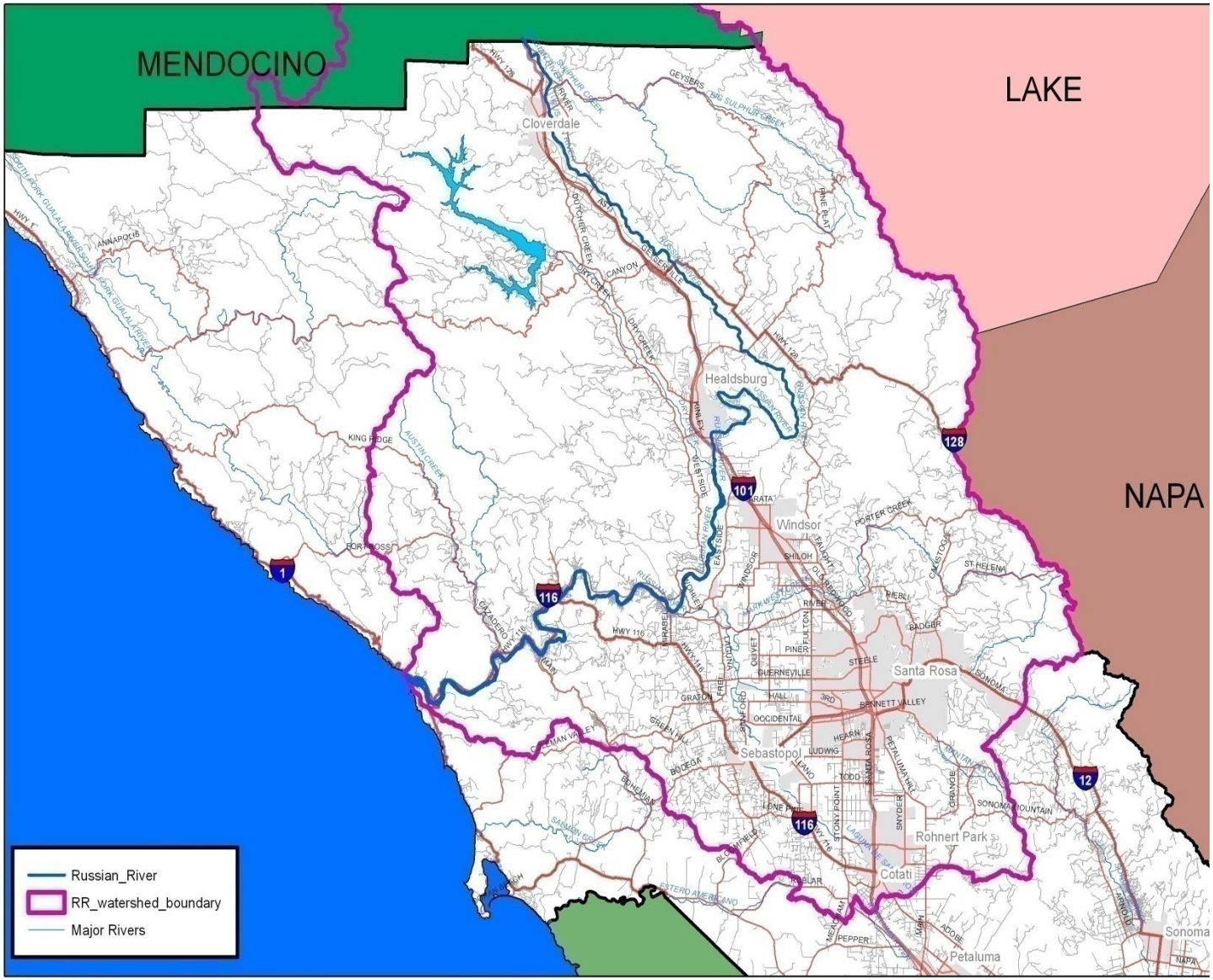
Value of Irrigated Lands in the Russian River Watershed in Mendocino County

Based on the Mendocino County Tax Assessors Office the five year average assessed land value for vineyards in the Russian River Watershed is **64 million dollars**.

The Assessed Tax Improvement value for these vineyard parcels is over **83 million dollars**.

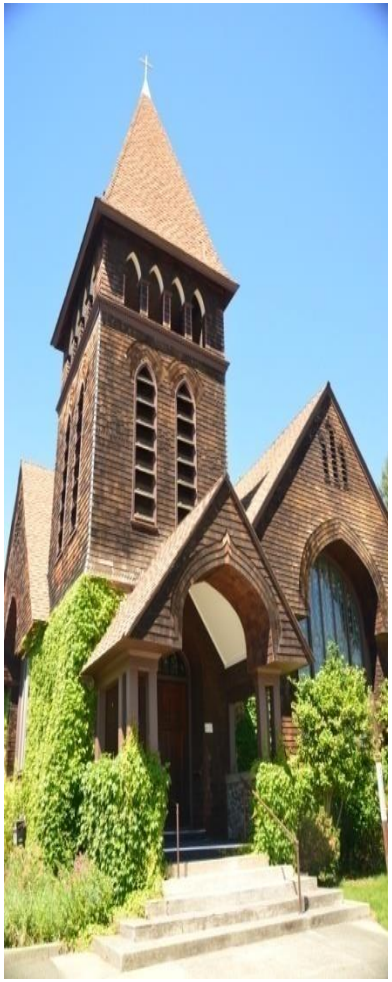
Farmable land without adequate water has historically sold at **30 to 50+ percent less** than farmable land with a good water supply.

Russian River Watershed in Sonoma County



City of Cloverdale

- Incorporated in 1872
- Current population **8,634**.
- 100% of the water supply for the city is pumped from under flow of the Russian River. This water supply is considered by the SWRCB to be directly under the influence of surface flows of the Russian River.
- 75% of the distribution of the water is residential, 25% nonresidential.
- Voluntary summer conservation program alternates days when only half the residents use water for landscaping.



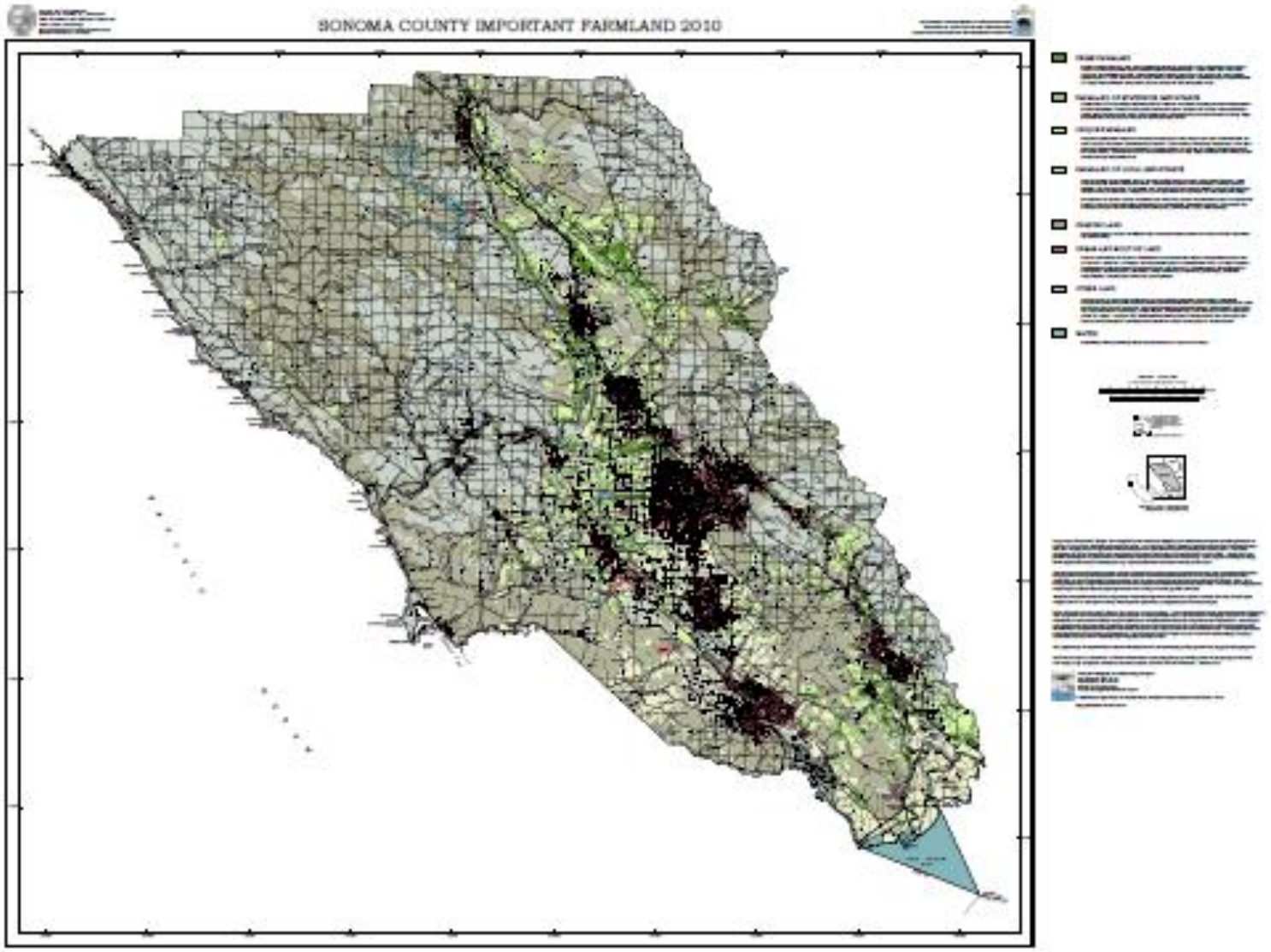
City of Geyserville

- Established 1851
- Population **2,100**
- All water is pumped from Russian River underflow.
- Average **174** acre feet per year and currently have just over 300 connections.

City of Healdsburg

- Established in 1867
- Currently has **11,500 residents**.
- Water supply is from the Russian River and Dry Creek. Ten year average for the Russian River wells has been 559.43 MG or 1,719.59 acre feet. Ten year average for the Dry Creek wells is 191.79 MG or 589.53 acre feet. **77% of their water is from the Russian River**. They have about 4,400 service connections and 88% of those are residential.
- Water Conservation Ord. 1077, and Resolution 58-2013.

Agricultural Economy along the Russian River Corridor in Sonoma County



2012 Vine and Tree Crop Values for Alexander Valley, Sonoma County

There are 12,461 acres of wine grape vineyards in Alexander Valley. The 2012 crop value for the grapes produced here was **$122,350,000.**

Very conservatively the value of Alexander Valley wines are over **358 million dollars per year**.

SCWA estimates that Alexander Valley agriculture annually uses **11,000** acre feet of water from the Russian River.

Environmental Benefits of Raising Coyote

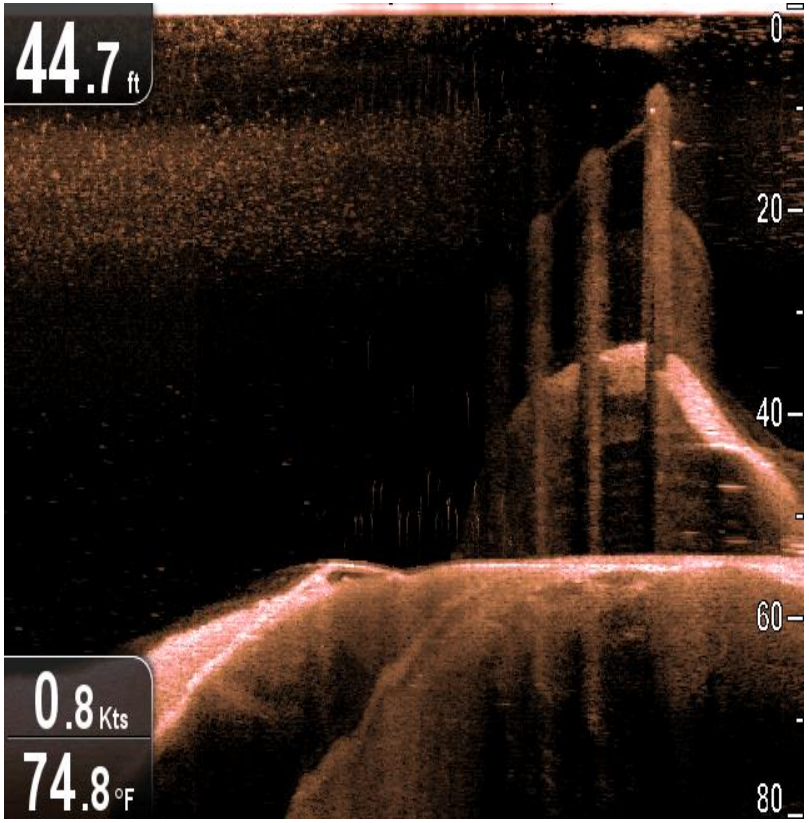
Reliability

- Fall Chinook benefit from Coyote releases
- Mainstem from Ukiah to Healdsburg best Chinook spawning habitat
- Ukiah Valley highest redd density in years with sufficient flows
- Reduced outflows re-direct fish to Dry Creek

Environmental Benefits of Raising Coyote

Water Quality

- Increased storage will create increased cold-water pool
- New tower
  - Access to best water
  - Temperature
  - Turbidity
- Turbidity basis for Jeopardy



What is at stake?

The domestic, industrial, agricultural, environmental and recreational water supply, for over 600,000 people in the Russian River Watershed in Mendocino, Sonoma and Marin Counties, is jeopardized in drought years.

No adequate, or reliable, alternative sources of water are available.

Raising Coyote Valley Dam to it's originally authorized height of 36' above the current height would <u>eliminate</u> the threat of droughts by ensuring carryover storage.

Contributors and References

Redwood Valley County Water District, Bill Koehler, General Manager
Calpella and Millview Water Districts, Tim Bradley, General Manager
City of Ukiah, Benj Thomas, City Council, Mel Grandi, Electric Utility Director.
Jarod Thiele, Public Works, Shelly Whyburn, Water Treatment Plant Operator
Russian River Flood Control , Sean White, General Manager
City of Hopland, Dave Redding, Sean White
Mendocino County Ag. Commissioner, Chuck Morse
U.S. Census (Ag Jobs) <factfinder.census.gov/servlet/QTTTable>
EDD (Grape Industry Economics) <labormarketinfo.edd.ca.gov/qcew/CEW-detail>
U.S. Census (non-employer businesses) <census.gov/epcd/nonemlyer.htm>
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