

City of Ukiah Electric Utility Department

Lake Mendocino Hydroelectric Project with

Coyote Valley Dam Facts



The Coyote Valley Dam was built by the Army Corps of Engineers in 1959, creating Lake Mendocino.

- The lake's maximum elevation is 762 feet ASL (<u>Above Sea Level</u>) during normal operation of the hydroelectric plant.
- At the 761 foot elevation the lake's:
 - -Surface area is 1,922 acres
 - -Maximum depth is 133 feet.
 - -Dam length is 3,532 feet long and 20 feet wide at the crest.

-Holding capacity is 111,000 acre-feet! That's equivalent to 1000 acres covered with water that is 111 feet deep!

- Agencies involved in protecting the river and determining the flows leaving through the project include Sonoma County Water Agency, California Division of Fish & Game, and the Army Corps of Engineers.
- When flows called for are greater that what can be passed through the generator turbines the additional flows are released through bypass valves located in the power plant.



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The Mendocino Hydro Plant was built by the City of Ukiah in 1986.

- During normal plant operation, the plant is controlled remotely by the Northern California Power Agency (NCPA) located in Roseville, California.
- The Dam's height is 784 feet ASL (Above Sea Level)
- Elevation of the water inlet to the generators is 617 feet ASL.
- Water Pressure at the generators with a lake level of 617 feet is about 62 PSI (Pounds per Square Inch).



Mendocino Hydro Plant is comprised of two 2,400 volt, 3 phase generators driven by Francis type turbines.

Unit 1 Capacity: 1 Megawatt @ 130 CFS (Cubic Feet of water per Second)

Unit 2 Capacity: 2.5 Megawatts @ 270 CFS

Total Capacity:3.5 Megawatts @ 400CSF (179,520 GPM) This would fill an Olympic sizeswimming pool in about 3.5 minutes!!



At full capacity of 3.5 megawatts the generators could supply about

875 homes at an average of 4,000 watts per home. The potential energy capacity of 111,000 acre feet of water could supply the 875 homes for about 140 days!

