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COUNTY OF MENDOCINO
DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH

Is Rainwater Harvesting a Favorable Option for Mendocino County Residents?

This information was prepared for speculative purposes only. **At present time, DEH does not consider rainwater harvesting suitable for Proof of Water for subdivisions, second residences, or building permits. THIS IS NOT AN ENDORSEMENT FOR RAINWATER HARVESTING.**

Pros of Rainwater Harvesting:

1. Rainwater may be the only water supply available on a parcel.
2. Rainwater is relatively unmineralized.
3. It is possible that collection of rainwater would prevent or reduce erosion at the site.

Cons of Rainwater Harvesting:

1. Supply of rainwater is limited.
2. Dry years will have an immediate, unbuffered impact.
3. Large storage capacity would be required.

4. Contamination is inevitable.
5. System defects can catastrophically affect supply.
6. Catchment systems may require more maintenance than a well or spring.
7. Cost is higher than a well or spring. (Estimated cost is $14,000, as opposed to $8,000 -$10,000 for a drilled well and $1,000-$3,000 to develop a spring.)

A Mendocino County Example for Viability (assuming these general parameters):

Rainfall for an Average Year: 48" (4 feet)
Rainfall for a Dry Year: 24" (2 feet)
Dry Season is April 1 - Nov. 1: 7 months (210 days)
1 Cubic Foot = 7.4 gallons

Catchment Area: 1,000 sq. ft.
Catchment Efficiency: 75%
Average Water Use: 50 gallons/person/day

Average Year:
1000 sq. ft. X 7.4 gallons X 4 ft. rainfall X .75 (efficiency rate) = 22,200 gallons of water collected for the year.
22,200 gallons X 7/12 (7 dry months/year) = 12,950 gallons of water stored for the dry season
50 gallons X 210 days = 10,500 gallons of water required for one person during the dry season.
Given these parameters, one person would have enough stored water during the dry season.

Dry Year:
1000 sq. ft. X 7.4 gallons X 2 ft. rainfall X .75 (efficiency rate) = 11,100 gallons of water collected for the year.
11,100 gallons X 7/12 (7 dry months/year) = 6,475 gallons of water stored for the dry season
50 gallons X 210 days = 10,500 gallons of water required for one person during the dry season.
Given these parameters, one person would not have enough stored water to last through the dry season.