

Alpine Lakes Ranch Water Company

December 1, 2008

ALR Water System Information

System Designation: The State of Colorado classifies and regulates the ALR water system as a **community water system**.

Wells:

- 6 total (Alpine Meadows (2), Ranch Headquarters (2), Elk Ridge (2)) approved for use.
- Well depths range from 65 feet to 260 feet

Pump & Treatment Stations:

- 5 (Alpine Meadows, Ranch Headquarters, Elk Ridge (2), Ponderosa Hills)

Water Disinfection & Treatment Systems:

- Liquid chlorination (Alpine Meadows (1), Headquarters (1), Elk Ridge (1))
- Solid chlorination (Elk Ridge well)
- Reverse Osmosis (Alpine Meadows)

Storage:

- 4 storage tanks of ~25000 gallons each (Alpine Meadows, Coyote Park, Elk Ridge, Ponderosa Hills) at altitudes from 7600 – 8500 feet.
- 5 clear wells (Alpine Meadows (2), Ranch Headquarters (off line), Elk Ridge, Ponderosa Hills)

Distribution Piping:

- Approximately 40 miles of 3 inch polyvinyl chloride pipe (20 foot lengths)

Residential Water Meters/Water Distributed:

	Water Meters	Water Distributed (for year)
2006		3,900,000
2007		4,242,000
2008	105	4,309,000
2009		

Average ALR Water Usage: 70 gallons per tap per day (35 gallons per person per day).

State Drinking Water Regulations:

- All routine microbiological testing has been in compliance.
- Chemical testing of source water in compliance.
- Lead & copper testing: In compliance for lead; copper exceeds Action Level do to corrosive nature of water. Phosphate addition started 2008.
- Extensive testing during 2005 & 2006. Continuing currently.
- Residential cistern testing program established & operating.
- ALRWATCO will be required to comply with new Drinking Water Regulations as they are enacted.

Alpine Lakes Ranch Water Quality Parameters

The test results reported below were obtained for water entering the Alpine Lakes Ranch water distribution system from Alpine Meadows and Headquarters wells and treatment. Analyses were performed during 2003 and 2004.

Water was also found free of Total Coliform during all routine tests required by Colorado Drinking Water Regulations.

Water Quality Parameter	Concentration Range	Typical Concentration *	Units
Alkalinity, Total as CaCO ₃	216 - 294	270	mg/L
Conductivity	746 - 1299	1186	µs/cm
Hardness, Total	18 - 28	25	gr/gal
Iron	None Detected	None Detected	mg/L
Manganese	Not tested	Not tested	mg/L
Nitrate	None Detected - 0.09	0.06	mg/L
pH	7.14 - 8.11	7.80	
Salinity	0.4 - 0.6	0.53	ppt
Sodium	64 - 140	107	mg/L
Sulfate	100 - 300	238	mg/L
Total Dissolved Solids	365 - 643	557	mg/L

* **Typical Concentration** based on blended water 69% from Alpine Meadows Tank #2 Distribution ; 31 % from Headquarters Wells #1 & #2.

Thomas Thorpe
 Operator in Responsible Charge
 Alpine Lakes Ranch Water Company

General Water Facts

National Average Household Use: 100 gallons per day per person

Typical Uses:

- Only about 1% of treated domestic water is consumed
- Shower: 20-30 gallons per shower
- Bath: 30-40 gallons per bath
- Laundry: 20-45 gallons per load
- Toilet: 3.5-7 gallons per flush
- Irrigation/Plant Watering: 7-43 gallons per 100 square feet
- Horses: 8-12 gallons per day per horse

Leaks:

- A leak of 1/16 inch diameter will result in the loss of 360 gallons of water per day or 131,400 gallons in 1 year.