



DIANA M. BONTÁ, R.N., Dr. P.H.  
Director

State of California—Health and Human Services Agency  
Department of Health Services



GRAY DAVIS  
Governor

System no. 1500209  
May 23, 2003

William Preston  
ALTA SIERRA MUTUAL WATER CO.  
6840 Evans Road, No. 11  
Wofford Heights, CA 93285

4/25/03

Source Water Assessment Report

The California Department of Health Services, Drinking Water Field Operations Branch, Tehachapi District, recently conducted an assessment of the active sources in your water system. The purpose of the assessment was to determine the vulnerability of your source(s) to "possible contaminating activities." A copy of the assessment is enclosed, along with an explanatory document entitled "Questions and Answers About Source Water Assessments."

To ensure that your customers are aware of the assessment and have access to it, you must include the language that is used in the vulnerability summary section of the assessment in your next and future Consumer Confidence Report (Annual Drinking Water Quality Report to Customers).

You may include additional explanatory language in your Consumer Confidence Report. This may include: treatment provided to remove contaminants; further description of any contaminants detected, the likely sources of contamination, or the facilities of concern; description of mitigating activities; or actions that the water system is taking to protect the drinking water supply.

If you have any questions regarding this letter, please contact Allen Westersund at (559) 447-3300 or me at (661) 335-7315.

Sincerely,

for Jaswinder S. Dhaliwal, P.E.  
Senior Sanitary Engineer  
SOUTHERN CALIFORNIA BRANCH  
DRINKING WATER FIELD OPERATIONS

Attachments:  
Questions and Answers about Source Water Assessments  
Copy of Assessment Report



Do your part to help California save energy. To learn more about saving energy, visit the following web site:  
[www.consumerenergycenter.org/flex/index.html](http://www.consumerenergycenter.org/flex/index.html)

Southern California Drinking Water Field Operations Branch  
1200 Discovery Drive, Suite 100, Bakersfield, CA 93309  
(661) 335-7315; (661) 335-7316 Fax

Internet Address: <http://www.dhs.ca.gov/ps/ddwem/technical/dwp/dwpindex.htm>

# Drinking Water Source Assessment

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Water System

**ALTA SIERRA MUTUAL WATER CO.**

Kern County

Water Source

**WELL 01**

Assessment Date

**May, 2003**

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California Department of Health Services  
Drinking Water Field Operations Branch  
DHS Tehachapi District

District No.	19
System No.	1500209
Source No.	001
PS Code	1500209-001

Drinking Water Source Assessment and Protection (DWSAP) Program

**Assessment Summary**

District Name DHS Tehachapi District District No. 19 County Kern

System Name ALTA SIERRA MUTUAL WATER CO. System No. 1500209

Source Name WELL 01 Source No. 001 PS Code 1500209-001

Completed by Allen Westersund Date May, 2003

According to DHS records, this Source is Groundwater. This Assessment was done using the Default Groundwater System Method.

**Description of System and Source**

Alta Sierra Mutual Water Company is a small community water system that serves a population of 100 people through 203 service connections. Water is supplied to the system by 6 horizontal wells and one vertical well.

Vertical Well 01 was drilled in 1989 to a depth of 520 ft. and is equipped with a 12 inch diameter steel casing. The casing is perforated between 270 ft. and 573 ft. and has a 30 ft. cement annular seal.

This source is equipped with a 5 hp submersible pump that has a maximum capacity of 25 gpm.

**Assessment Procedures**

The assessment of Vertical Well 01 was conducted by the DHS District office staff. The following sources of information were used in the assessment: water system files and DHS files.

Procedures used to conduct the assessment include: Well Data Sheets and Possible Contaminating Activities (PCA) inventories completed by Alta Sierra Mutual Water Company personnel and a GPS survey conducted by DHS District Staff.

**Contents of this Assessment**

- Yes  No  Assessment Summary
- Yes  No  Vulnerability Summary
- Yes  No  Source Location Form
- Yes  No  Delineation of Water Protection Zones
- Yes  No  Physical Barrier Effectiveness Checklist
- Yes  No  Source Data Sheet
- Yes  No  Inventory of Possible Contaminating Activities
- Yes  No  Vulnerability Ranking
- Yes  No  Assessment Map

*Drinking Water Source Assessment and Protection (DWSAP) Program*

**Vulnerability Summary**

District Name DHS Tehachapi District District No. 19 County Kern

System Name ALTA SIERRA MUTUAL WATER CO. System No. 1500209

Source Name WELL 01 Source No. 001 PS Code 1500209-001

Completed by Allen Westersund Date May, 2003

THE FOLLOWING INFORMATION MUST BE INCLUDED IN THE SYSTEM CONSUMER CONFIDENCE REPORT

A source water assessment was conducted for the WELL 01  
of the ALTA SIERRA MUTUAL WATER CO. water system in May, 2003

The source is considered most vulnerable to the following activities not associated with any detected contaminants:

Septic systems - low density

**Discussion of Vulnerability**

In addition to the PCA's listed in the vulnerability summary this source is also considered to be vulnerable to the following activities:

Wells - Water supply  
Historic gas stations

No contaminants associated with the indicated Possible Contaminating Activities (PCA) have been detected in water produced by this source.

A copy of the complete assessment may be viewed at:

Alta Sierra Mutual Water  
6840 Evans Rd, No. 11  
Wofford Heights, CA 93285

You may request a summary of the assessment be sent to you by contacting:

William Preston  
Secretary  
(760) 376-1561

Drinking Water Source Assessment and Protection (DWSAP) Program

**Delineation of Water Protection Zones**

District Name DHS Tehachapi District District No. 19 County Kern  
 System Name ALTA SIERRA MUTUAL WATER CO. System No. 1500209  
 Source Name WELL 01 Source No. 001 PS Code 1500209-001  
 Completed by Allen Westersund Date May, 2003

Method Used to Delineate Protection Zones

**X 1. Calculated Fixed Radius**

2. Modified Calculated Fixed Radius (Attach documentation for direction of ground water flow.)
3. More Detailed Methods
4. Arbitrary Fixed Radius (For use only by or permission of DHS)

**Fractured Rock Aquifer**

Maximum Pumping Rate of Well (Q)	<u>25</u>	gallons/minute
	<u>40</u>	acre feet/year
	<u>1,756,675</u>	cubic feet/year
Effective Porosity	<u>0.20</u>	<input checked="" type="checkbox"/> Default Value
Screened Interval of Well	<u>303</u>	feet <input type="checkbox"/> Default Value

Protection Zone	Calculated Value	Minimum Value	Radius of Protection Zone
Zone A - 2 Year TOT*	204 Feet	900 Feet	<b>900</b> Feet
Zone B5 - 5 Year TOT*	322 Feet	1,500 Feet	<b>1,500</b> Feet
Zone B10 - 10 Year TOT*	456 Feet	2,250 Feet	<b>2,250</b> Feet

\*TOT = Time of Travel

Drinking Water Source Assessment and Protection (DWSAP) Program

**Physical Barrier Effectiveness (PBE)**

District Name DHS Tehachapi District District No. 19 County Kern

System Name ALTA SIERRA MUTUAL WATER CO. System No. 1500209

Source Name WELL 01 Source No. 001 PS Code 1500209-001

Completed by Allen Westersund Date May, 2003

Parameter	Possible Points	This Source	Score
<b>Type of Aquifer</b>			
<b>Confinement</b>			
1. Unconfined, Semi-confined, Fractured Rock, Unknown Aquifer	0	X	0
2. Confined	50		
<b>Aquifer Material (Unconfined Aquifers)</b>			
<b>Type of material within aquifer</b>			
1. Porous Media (Interbedded sands, silts, clays, gravels) with continuous clay layer minimum 25' thick above water table within Zone A	20		
2. Porous Media (Interbedded sands, silts, clays, gravels)	10		
3. Fractured rock ( Low Physical Barrier Effectiveness - no further questions required)	0	X	0

Score	Effectiveness
0 to 35	Low
36 to 69	Moderate
70 to 100	High

Score	<u>0</u>
Effectiveness	<u>Low</u>

Drinking Water Source Assessment and Protection (DWSAP) Program

**Inventory of Possible Contaminating Activities (PCA Inventory)**

District Name DHS Tehachapi District District No. 19 County Kern

System Name ALTA SIERRA MUTUAL WATER CO. System No. 1500209

Source Name WELL 01 Source No. 001 PS Code 1500209-001

Completed by Allen Westersund Date May, 2003

PCA (Risk Ranking)	PCA in Zone A	PCA in Zone B5	PCA in Zone B10	*	Comments
<b>Agricultural/Rural Activities</b>					
Grazing (> 5 large animals or equivalent per acre) (H in Zone A, otherwise M)	N	N	N		
Concentrated Animal Feeding Operations (CAFOs) as defined in federal regulation1 (VH in Zone A, otherwise H)	N	N	N		
Animal Feeding Operations as defined in federal regulation2 (VH in Zone A, otherwise H)	N	N	N		
Other Animal operations (H in Zone A, otherwise M)	N	N	N		
Farm chemical distributor/ application service (H)	N	N	N		
Farm machinery repair (H)	N	N	N		
Septic systems - low density (<1/acre) (H in Zone A, otherwise L)	Y	N	N		
Lagoons / liquid wastes (H)	N	N	N		
Machine shops (H)	N	N	N		
Pesticide/fertilizer/ petroleum storage & transfer areas (H)	N	N	N		
Agricultural Drainage (H in Zone A, otherwise M)	N	N	N		
Wells - Agricultural/ Irrigation (H)	N	N	N		
Managed Forests (M)	N	N	N		
Crops, irrigated (Berries, hops, mint, orchards, sod, greenhouses, vineyards, nurseries, vegetable) (M)	N	N	N		
Fertilizer, Pesticide/ Herbicide Application (M)	N	N	N		
Sewage sludge/biosolids application (M)	N	N	N		
Crops, nonirrigated (e.g., Christmas trees, grains, grass seeds, hay, pasture) (includes drip-irrigated crops) (L)	N	N	N		
<b>Other Activities</b>					
NPDES/WDR permitted discharges (H)	N	N	N		
Underground Injection of Commercial/Industrial Discharges (VH)	N	N	N		
Historic gas stations (VH)	N	N	Y		
Historic waste dumps/ landfills (VH)	N	N	N		
Illegal activities/ unauthorized dumping (H)	N	N	N		
Injection wells/ dry wells/ sumps (VH)	N	N	N		

Y = Yes      N = No      U = Unknown

\* = A contaminant potentially associated with this activity has been detected in the water supply.

**Inventory of Possible Contaminating Activities (PCA Inventory)**

System Name ALTA SIERRA MUTUAL WATER CO. System No. 1500209  
 Source Name WELL 01 Source No. 001 PS Code 1500209-001

PCA (Risk Ranking)	PCA In Zone A	PCA In Zone B5	PCA In Zone B10	*	Comments
<b>Other Activities</b>					
Known Contaminant Plumes (VH)	N	N	N		
Military installations (VH)	N	N	N		
Mining operations - Historic (VH)	N	N	N		
Mining operations - Active (VH)	N	N	N		
Mining - Sand/Gravel (H)	N	N	N		
Wells - Oil, Gas, Geothermal (H)	N	N	N		
Salt Water Intrusion (H)	N	N	N		
Recreational area - surface water source (H)	N	N	N		
Underground storage tanks - Confirmed leaking tanks (VH)	N	N	N		
Underground storage tanks - Decommissioned - inactive tanks (L)	N	N	N		
Underground storage tanks - Non-regulated tanks (tanks smaller than regulatory limit) (H)	N	N	N		
Underground storage tanks - Not yet upgraded or registered tanks (H)	N	N	N		
Underground storage tanks - Upgraded and/or registered - active tanks (L)	N	N	N		
Above ground storage tanks (M)	N	N	N		
Wells - Water supply (M)	Y	N	N		
Construction/demolition staging areas (M)	N	N	N		
Contractor or government agency equipment storage yards (M)	N	N	N		
Dredging (M)	N	N	N		
Transportation corridors - Freeways/state highways (M)	N	N	N		
Transportation corridors - Railroads (M)	N	N	N		
Transportation corridors - Historic railroad right-of-ways (M)	N	N	N		
Transportation corridors - Road Right-of-ways (herbicide use areas) (M)	N	N	N		
Transportation corridors - Roads/ Streets (L)	N	N	N		
Hospitals (M)	N	N	N		
Storm Drain Discharge Points (M)	N	N	N		
Storm Water Detention Facilities (M)	N	N	N		
Artificial Recharge Projects - Injection wells (potable water) (L)	N	N	N		
Artificial Recharge Projects - Injection wells (non-potable)	N	N	N		

Y = Yes    N = No    U = Unknown  
 \* = A contaminant potentially associated with this activity has been detected in the water supply.



**Inventory of Possible Contaminating Activities (PCA Inventory)**

System Name ALTA SIERRA MUTUAL WATER CO. System No. 1500209  
 Source Name WELL 01 Source No. 001 PS Code 1500209-001

PCA (Risk Ranking)	PCA in Zone A	PCA In Zone B5	PCA in Zone B10	*	Comments
<b>Other Activities</b>					
water) (M)					
Artificial Recharge Projects - Spreading Basins (potable water) (L)	N	N	N		
Artificial Recharge Projects - Spreading Basins (non-potable water) (M)	N	N	N		
Medical/dental offices/clinics (L)	N	N	N		
Veterinary offices/clinics (L)	N	N	N		
Surface water - streams/ lakes/ rivers (L)	N	N	N		
Wells - monitoring, test holes (L)	N	N	N		

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Drinking Water Source Assessment and Protection (DWSAP) Program

**Vulnerability Ranking**

District Name DHS Tehachapi District District No. 19 County Kern

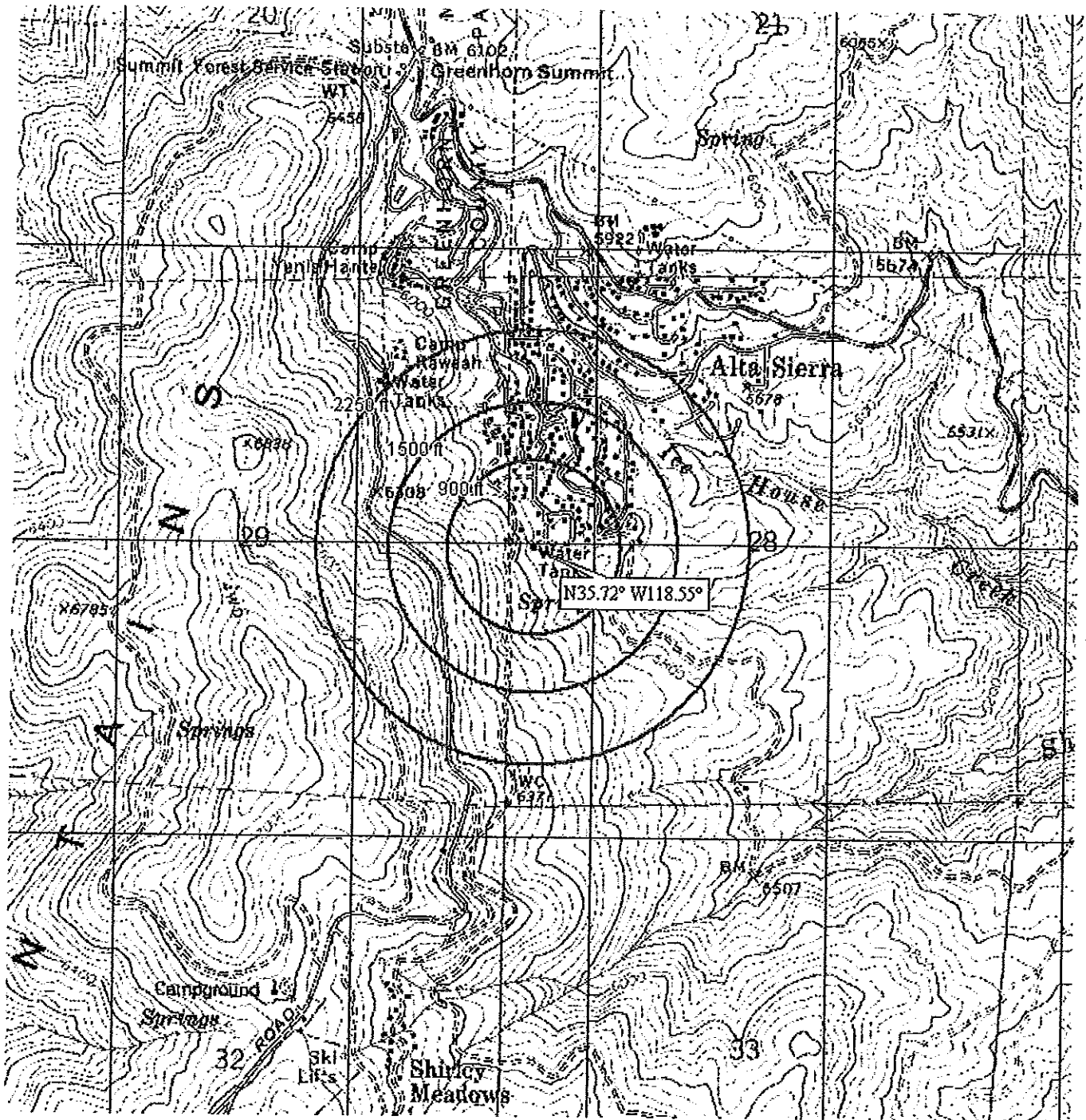
System Name ALTA SIERRA MUTUAL WATER CO. System No. 1500209

Source Name WELL 01 Source No. 001 PS Code 1500209-001

Completed by Allen Westersund Date May, 2003

Zone	PCA (Risk Ranking)	*	PCA Risk Points	Zone Points	PBE Points	Vulnerability Score
A	Septic systems - low density (<1/acre) (H in Zone A, otherwise L)		5	5	5	15
A	Wells - Water supply (M)		3	5	5	13
B10	Historic gas stations (VH)		7	1	5	13

\* = A contaminant potentially associated with this activity has been detected in the water supply.



Alta Sierra Mutual Water Company 1500209  
 Well 01 1500209-001