

# TECOPA SAFE DRINKING WATER AND FIRE WATER SUPPLY FEASIBILITY STUDY

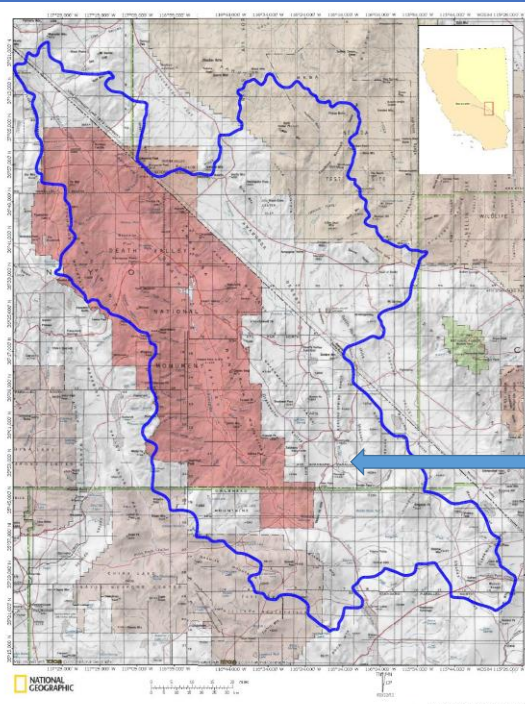
Tecopa and Tecopa Hot Springs, Inyo County, California

Presented to The Inyo-Mono Integrated Regional Water Management  
Program (IRWMP), Mammoth Lakes, California

By

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Location of Tecopa and  
Tecopa Hot Springs



## **ISSUES ASSOCIATED WITH WATER SUPPLY**

- **LOCATED IN REMOTE AREA**
- **DISADVANTAGED COMMUNITY**
- **NO SAFE SOURCES OF POTABLE WATER**  
(Residents drive 50+ miles round trip to fill water bottles)
- **LACKS AUXILIARY STORAGE FOR FIRE WATER SUPPLY**

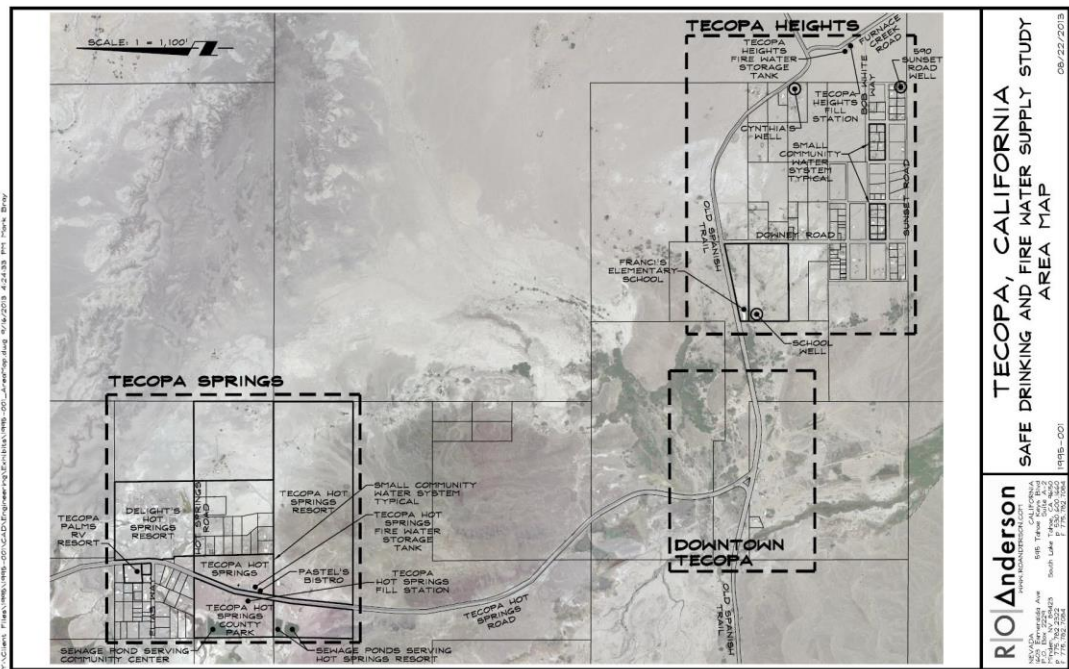


## **ISSUES ASSOCIATED WITH WATER SUPPLY**

- **LOCATED IN REMOTE AREA**
- **DISADVANTAGED COMMUNITY**
- **NO SAFE SOURCES OF POTABLE WATER**  
(Residents drive 50+ miles round trip to fill water bottles)
- **LACKS AUXILIARY STORAGE FOR FIRE WATER SUPPLY**  
(Most urgent need)

## Feasibility Study:

- Conducted by Johnson Wright, Inc. and R.O. Anderson Engineering, Inc.
- Grant Applicant – Amargosa Conservancy
- Data Collection and Assessment Activities
- Community Consultation
- Development of Recommended Project Alternatives and Estimated Costs



## **DATA COLLECTION AND ASSESSMENT INCLUDED:**

- Water sample collection to supplement existing data;
- Well canvassing;
- Gathering community water usage information through distribution community questionnaire (greater than 50% response rate)

## **DATA COLLECTION RESULTS:**

- Water quality poor in Tecopa Hot Springs poor
  - TDS > 2,000 mg/L
  - Arsenic levels up to 42x MCL
  - Fluoride up to 3.6 mg/L (greater than CA MCL)
- Water quality better in Tecopa Heights but remains above arsenic and fluoride MCLs
- 150 full-time residents in Tecopa area but during winter increases to approximately 375

## EVALUATION OF POTABLE WATER SYSTEM:

- Given relatively small amount of water needed (average annual consumption of 355 GPD) two treatment technologies evaluated included adsorption and reverse osmosis.
- Distribution through dispenser system (not a distribution system)
- Likely location at Fire District leased parcel (Fire District also likely operator).
- System will be in Tecopa Heights (most cost-effective location)
- Conceptual design drawing on next slide

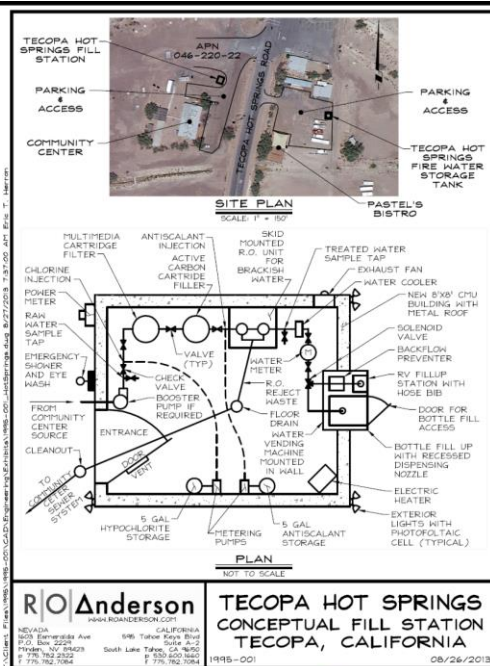


Figure 8. Tecopa Hot Springs Conceptual Fill Station, Tecopa, California

## EVALUATION OF FIRE WATER SYSTEM:

- Two locations possible – Tecopa Hot Springs and Tecopa Heights
- 10,000-gallon storage at each site
- Tecopa Heights location on Fire District leased parcel (well exists)
- Example conceptual drawing on next slide

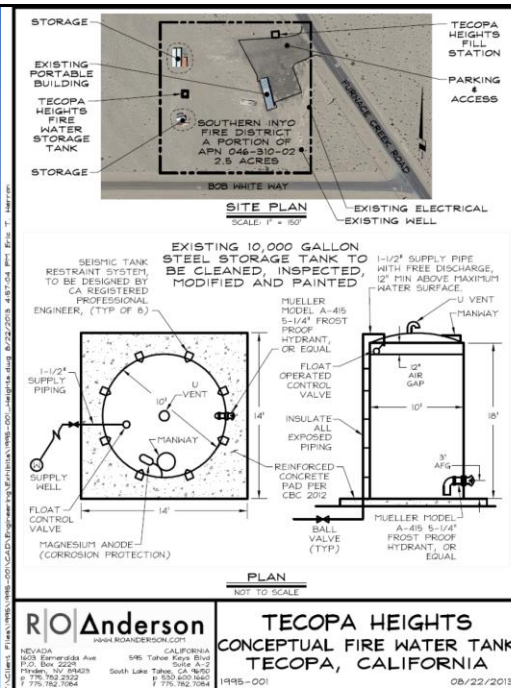


Figure 9. Tecopa Heights Conceptual Fire Water Tank.

**ESTIMATED COSTS:**

- Potable Water System ~\$55,400
- Fire Storage in Tecopa Heights ~\$20,900
- Fire Storage in Tecopa Hot Springs ~\$29,100
- Costs include Design, Permitting, Construction and One-Year O&M
- Potable Water System costs recovered through usage fees