

## Volcan Mountain Transmission Poles

Julian, California

Keller designed and constructed a permanent guy wire anchor solution, putting an end to the owner's two-year-long endeavor to stabilize overturning transmission poles.



### The project

Simmons Flat is a remote wilderness preserve at an approximate elevation of 5,300 feet. The area is subject to winds greater than 100 mph and ice loading, which resulted in excessive rotation of 32 power transmission poles. Previous attempts to resist the guy-wire loads using traditional plate anchors were unsuccessful.

# The challenge

The work in this remote location was scheduled for late fall when high wildfire risk caused by dry and windy conditions required constant fire watch and monitoring. In addition, the site is a preserve containing cultural and historical artifacts requiring extreme sensitivity during construction.

# The solution

To stabilize the transmission poles, Keller designed and constructed drilled and grouted guy-wire anchors with capacities greater than 100 kips. Keller was sensitive to the environmental, biological, and cultural constraints using small, mobile equipment to minimize the areas of disturbance.

“ Great job to those who supported this [anchor] and overhead work on Volcan Mountain! I greatly appreciate everyone’s hard work and dedication in completing the task given all of the constraints, especially the difficult weather.

**Willie Thomas**  
Fire Risk Mitigation Program Manager, SDG&E

# Project facts

<b>Owner(s)</b> San Diego Gas & Electric (SDG&E)	<b>Solutions</b> Ground improvement
<b>Keller business unit(s)</b> Keller	<b>Markets</b> Power
<b>Main contractor(s)</b> Henkels & McCoy, Inc.	<b>Techniques</b> Anchors
<b>Engineer(s)</b> Trinity Geotechnical Engineering, Inc.	

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