



Forest  
Service

Sequoia National Forest and  
Giant Sequoia National Monument

Western Divide District  
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**File Code:** 1950

**Date:** December 9, 2011

**Route To:**

**Subject:** Fallen Sequoias at Trail of 100 Giants Scoping Letter

**To:** Interested Parties

Dear Interested Citizens,

This letter initiates the scoping for the Fallen Sequoias at Trail of 100 Giants project within the Sequoia National Forest and Giant Sequoia National Monument. The project is located at the Trail of 100 Giants (Forest Service Trail 31E00) East of Springville, along the Western Divide Highway, approximately three air miles west of the community of Johnsondale, Tulare County, California. The legal location of the project is Township 22S, Range 31E, Section 35, MDBM (see Map 1).

### **Background**

On Friday, September 30, 2011, two giant sequoia trees fell side by side across the Trail of 100 Giants, a popular recreation site. These two sequoias are joined together at the base, appearing as one for approximately 30 feet. The trees were approximately 280 feet tall and have a combined diameter of approximately 17 feet near the root ball where they first obstruct the trail.

A public field trip was held on Saturday, October 22, 2011 to invite the public to look at the downed sequoias, assess for themselves the situation, and submit their thoughts on what could be done to restore the Trail of 100 Giants. Approximately 100 people attended the field trip, including media. In addition, the Forest Service has received over 150 comments and suggestions verbally and in writing pertaining to the fallen sequoias and the trail.

The Trail of 100 Giants was dedicated in 1989 and refurbished in 1997 to provide increased accessibility by meeting requirements of the Americans with Disabilities Act (ADA). The trail provides an easy, accessible walk on approximately 1.3 miles of paved trail through the Long Meadow Grove, one of the premier groves of giant sequoias. This grove showcases monarchs estimated to be 1,500 years old or older. The trail has a main loop northeast of the day use parking lot, and an additional loop east of the main loop called the Fallen Giant Loop. The sequoias fell along the northern most part of the main loop.

### **Existing Condition**

This natural event is unique and historical. The public and media (including national coverage) have shown interest in seeing and experiencing the results of these two attached sequoias having fallen on a popular, internationally known trail in the Giant Sequoia National Monument. The public is very interested in what will be done to restore the trail.



Trail: The fallen sequoias cover two sections of the Trail of 100 Giants. Approximately 85 square feet of trail is covered by the base of the sequoias near the root ball. A separate section of trail approximately 108 feet long, five feet wide, and including a switchback is also covered by the sequoias. The trail is now blocked; creating dead ends at two locations and no longer provides a loop opportunity that meets ADA accessibility requirements. Where the sequoias impacted the trail, the asphalt is destroyed or damaged. A bridge, bench, and an interpretative sign were also impacted by the fallen sequoias.

This iconic trail receives approximately 5,000 visitors per week, including international, during the summer months. Evidence of foot traffic to connect the trail ends can already be seen across Long Meadow Creek in various locations. We anticipate that large numbers of visitors will continue to find their own path across the creek to tie in with the trail on the other side, potentially causing damage to plants and erosion.

The Giant Sequoia National Monument Association volunteer docents have been providing walking tours for the past two years at the Trail of 100 Giants. The fallen sequoias blocking the path make traffic flow difficult for most travelers, and impossible for those with disabilities.

Public Safety: When the sequoias fell, a hole was left where the roots pulled out of the ground. This hole is approximately 10 feet deep, with steep sides, loose soil, and jagged exposed root fragments. The fallen sequoias themselves pose a safety hazard; visitors are climbing on the trees, creating a visible foot path, and kicking the loose bark that will eventually expose a slick surface several feet above the ground.

### **Desired Conditions**

Trail: The main loop provides an ADA compliant trail for all visitors to enjoy the Trail of 100 Giants in the Long Meadow Grove. The trail passes near the fallen sequoias so visitors can see them and learn about what happened there, while not contributing to unnatural erosion or resource damage.

Public Safety: Visitors are able to observe and touch the fallen sequoias, and view the hole left by the root system safely.

### **Current Management Direction**

The desired conditions for the Fallen Sequoias at Trail of 100 Giants project are supported by current management direction. The 1988 Sequoia National Forest Land and Resource Management Plan focuses on the need to “develop and maintain a trail/transportation system that emphasizes loop trails” (p. 4-24). The 2000 Presidential Proclamation establishing the Giant Sequoia National Monument focuses on the enjoyment of the Monument by the public and acknowledges the need to provide access for persons with disabilities.

### **Purpose and Need**

The purpose of this project is to restore the ADA loop opportunity at Trail of 100 Giants. We need to provide a safe environment for the public to view and experience the fallen sequoias.

## Proposed Action

The proposed action is to build a boardwalk, meeting ADA requirements that connects the trail from the remaining northern-most bridge on the south side of the fallen sequoias, to the existing trail on the east-side (See attached Map 2 and Suggestion #2 on Map 3). The boardwalk will run parallel to, and approximately five feet away from, the fallen sequoias to avoid damage to the trail from natural process of decomposition, including sloughing bark. The support beams under the boardwalk will span approximately eight feet to support a five foot wide path with hand railings that meet ADA requirements. The boardwalk will be elevated off the ground approximately five feet, and be constructed from wood or materials resembling wood.

## Design Features

Follow appropriate Best Management Practices during project implementation for construction and maintenance guidelines.

## Comments

If you have information you feel the Forest Service may not be aware of, especially about any extraordinary circumstances, regarding the Proposed Action, **please send these in writing on or before January 9, 2012 to:**

Western Divide Ranger District

Attn: Anne Thomas

32588 Highway 190

Springville, CA 93265

RE: Fallen Sequoias at Trail of 100 Giants Project

or

[mariannethomas@fs.fed.us](mailto:mariannethomas@fs.fed.us)

Subject: Fallen Sequoias at Trail of 100 Giants Project

When submitting comments, please keep the comments specific to this proposal only. Comments that are not specific to the project and project area will be considered outside the scope of the analysis and will not be considered. For more information regarding this project contact Anne Thomas at 559-539-2607 ext. 270 or at the address above.

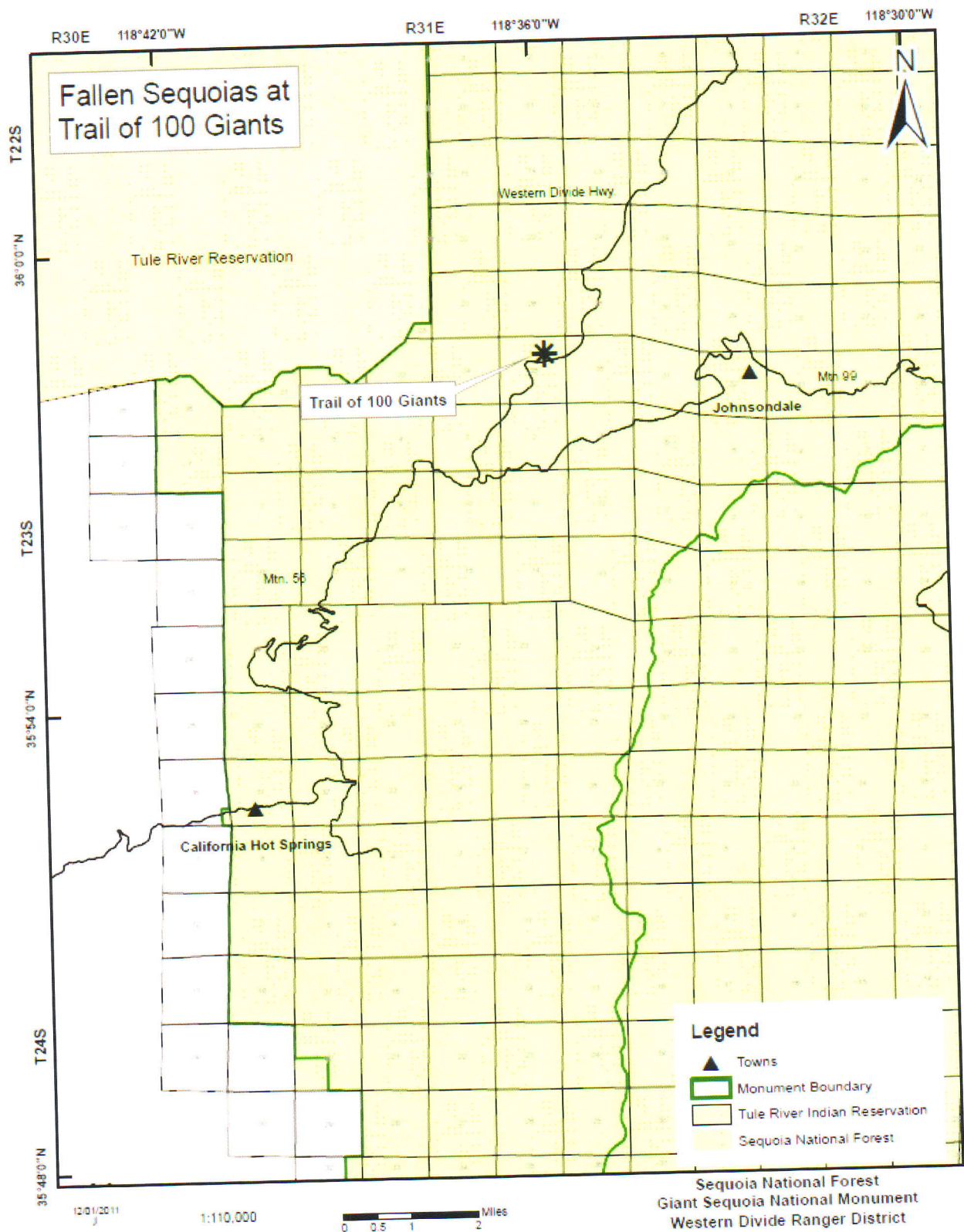


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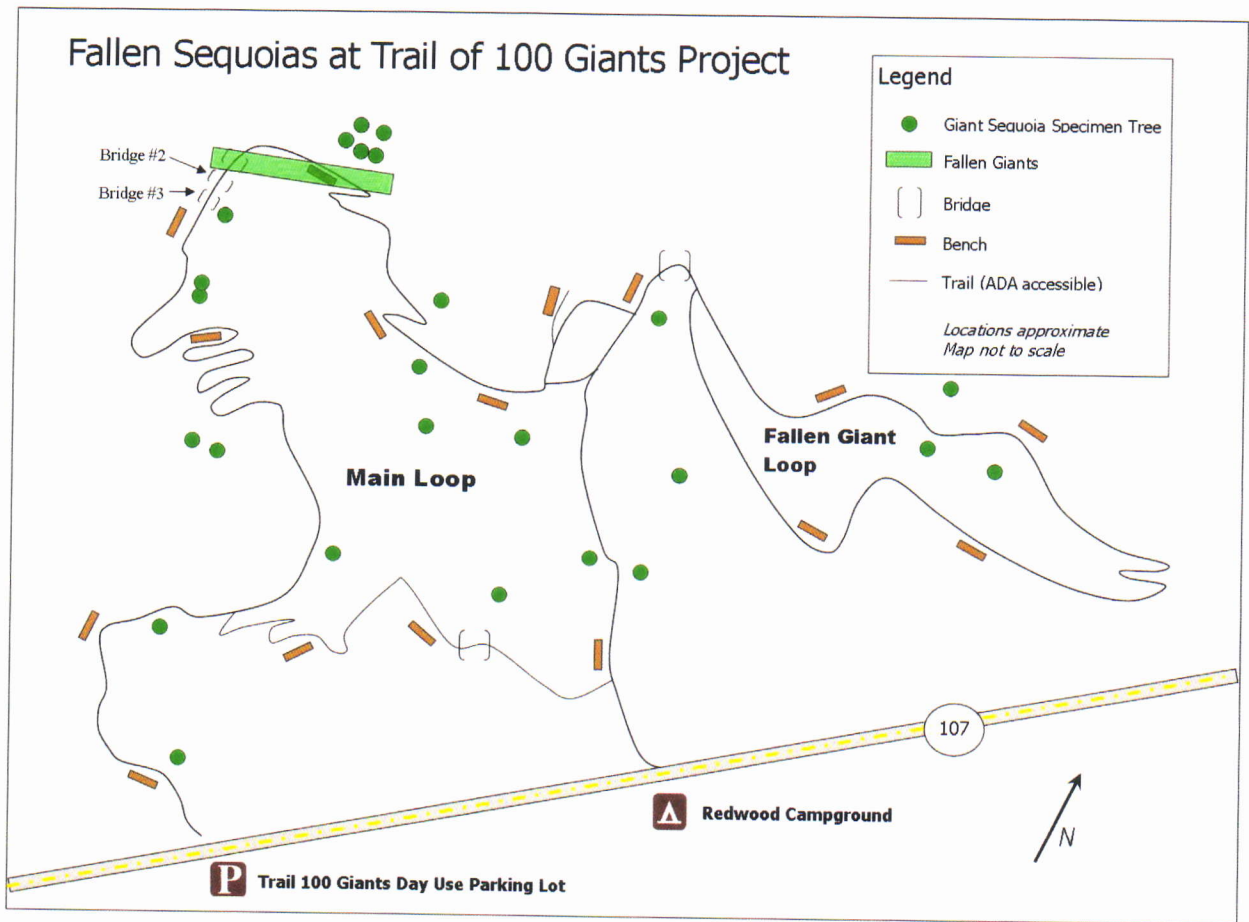
District Ranger

Enclosures

Map 1 Project Area for Fallen Sequoias at Trail of 100 Giants



Map 2 Locations of Fallen Sequoias, Trail of 100 Giants (Approximation)



## **Additional Information**

Since the sequoias fell on September 30, 2011, over 150 suggestions have been received by the Forest Service. These suggestions were reviewed and most fell into six common groups that are generally outlined below. Comments were also received asking that we build over the trees using a stairway and platform or build a tunnel under the fallen sequoias. Building over the trees does not accomplish the need to provide an ADA accessible loop opportunity. A tunnel under the fallen sequoias is not feasible because of the stream, and the fact that the water table is near the surface. Additional comments were received that addressed various ways to utilize the wood from the sequoias if the decision was made to cut them, and are not described here.

On November 10, 2011, two Sequoia National Forest Engineers and the Western Divide Ranger District Planner visited the site and gathered preliminary information regarding the six suggestions. Below is description of the suggestions and an initial evaluation done by the engineers on site. Map 3 identifies the locations of these suggestions:

**Suggestion #1** – Reroute the trail south of the fallen sequoias along a visibly recognized flat area leading from bridge #2 to the southwest bench on the switchback.

Preliminary field information: The existing loop trail crosses three drainages with bridges, one of which was crushed. This suggested reroute lies entirely within the drainage of these three streams. To create a stable trail within this drainage, it would need additional structural support, potentially eight feet wide, to withstand water flow and the associated natural soil movement and deposition.

This suggestion would affect the root system of existing trees, some of which have a diameter at breast height <sup>1</sup>(dbh) greater than 30 inches and may requiring the removal of large trees along the potential reroute. This route could also create water and drainage issues. Additionally, the suggested reroute would require the trail to go over a decomposing fallen sequoia to connect with the trail near the bench on the eastern side. To accomplish this, several switchbacks would be necessary to maintain ADA grade requirements.

**Suggestion #2** – Build a boardwalk along the south side of the fallen sequoia, from the spot where the trail is blocking the trail to the eastern most part of the switchback not blocked by the tree (see proposed action for additional information).

Preliminary field information: This suggestion could be constructed placing the boardwalk approximately 5 feet away from the tree to allow for bark slough. There are very few trees or root systems that would be affected by the necessary support structure and this suggestion does not initially appear to affect the drainage.

**Suggestion #3** – Cut out and/or remove all of the fallen sequoias that cover the trail. The fallen sequoias would be removed along two stretches of trail; one near the root ball and another along the trail itself.

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<sup>1</sup> Diameter at breast height is measured at a vertical distance of 4.5 feet from the ground at the base of the tree.

Preliminary field information: Cutting a portion out near the root ball would likely require an opening three to five feet wider than the trail itself. This would be necessary for equipment to access the damaged bridge. The sequoias are also covering approximately 108 feet of the trail. Removing this amount of wood would potentially require heavy equipment. Use of heavy equipment for trail maintenance would require a project specific Forest Plan amendment to comply with the 1990 Mediated Settlement Agreement. Once the wood is removed, the trail would need to be repaired from the impact of the fallen sequoias.

**Suggestion #4** - Cut two passages through the fallen sequoias to reopen the loop for ADA access.

Preliminary field information: For cutting out the section of the fallen sequoias near the root ball, refer to preliminary field information for suggestion #3. The other passage would require additional wood removal and trail construction to reroute the existing switchback covered by the fallen sequoias to meet ADA requirements. This trail construction could either be done north or south of the fallen sequoias. Removing this amount of wood would potentially require heavy equipment. Use of heavy equipment for trail maintenance would require a project specific Forest Plan amendment to comply with the 1990 Mediated Settlement Agreement.

**Suggestion #5** – Cut through the sequoias where they are covering the trail on southern (root ball) side and then construct a paved loop around the group of five sequoias, north of the fallen sequoias, to reconnect with the existing trail on the east side of the loop.

Preliminary field information: For cutting out the section of the fallen sequoias near the root ball, refer to preliminary field information for suggestion #3. Connecting the trail around the rest of the fallen sequoias, and the five standing sequoias, would require multiple switchbacks to meet ADA requirements. Removing this amount of wood would potentially require heavy equipment. Use of heavy equipment for trail maintenance would require a project specific Forest Plan amendment to comply with the 1990 Mediated Settlement Agreement.

**Suggestion #6** – Reroute the trail north around the fallen sequoias and the group of five standing sequoias reconnecting with the existing trail on the east side.

Preliminary field information: In order to reroute the trail and meet ADA requirements, the reroute would need to begin north of Bridge #3, and would require multiple switchbacks both uphill and downhill. This would require the removal of existing large woody debris and may require the removal of large trees along the potential reroute.

Map 3 Illustration of Suggestions (Approximation)

