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File Code: 1950/2350 **Date:** July 31, 2019

Subject: Felling of Hazard Trees at George Bush Loop Trail

To: Teresa Benson, Forest Supervisor

From: Eric G. LaPrice, Western Divide District Ranger

Over the last several years, the George Bush Trail has been closed to the public primarily due to the amount of hazard trees present along the trail. These hazard trees have the potential to fall and injure visitors and damage the trail surface. The George Bush Trail is within the Freeman Creek Grove of giant sequoias, so the hazard trees also have the potential to fall and cause injury to the giant sequoia trees, including the President George Bush Tree. None of the hazard trees are giant sequoias.

Once on the ground, these hazard trees would also present excessive fuel loading, which would be a threat to the giant sequoias. A portion of the felled material will need to be removed to reduce the fuel loading.

The trail surface was paved with natural pavement (aggregate and pine tar) and was accessible for persons with disabilities. The trail has become so damaged that it is no longer accessible. The natural pavement surface has degraded over time, and there are two sections where damage has occurred due to blocked culverts. Engineering is pursuing a contract to repave the trail with asphalt, but it needs to be stabilized in the interim.

The purpose of this project is to remediate the threat posed by the hazard trees at the George Bush Trail, reduce the fuel loading that will be caused by felling the hazard trees, and stabilizing the trail surface so the trail can be reopened to the public.

As the Responsible Official, I decided to fall the hazard trees to remediate the safety hazard, remove material to reduce the fuel loading, and conduct interim repairs to the trail. This work may be done using Forest Service crews and/or a contractor.

Once the trees are felled, a variety of actions will be performed to address the fuel loading. These actions may include:

- Some sections of the larger trees will be left on site as downed woody debris
- Some trees and limbs will be chipped on site
- Some material will be cut-up and moved to the side of the road where it can be picked up by the public (those with a valid permit) and used as firewood
- Some material will be piled and burned
- Some material may be sold

Forest crews will also clean out the culverts to restore proper drainage patterns and smooth out the surface of the trail and stabilize it until it can be repaved.

I have determined this action is in compliance with land management plan direction.

Land Management Plan Conformance	
Name of Plan	*Giant Sequoia National Monument Management Plan*
Date Published	*2012*
Applicable and Specific Language	*Provide visitors with opportunities to recreate in a variety of settings, from primitive to highly developed areas (pg. 56)* *Develop and manage opportunities for public enjoyment (pg. 56.)* *Balance diverse users and a wide variety of users (pg. 56)* *Provide for wide and varied public use of monument resources and opportunities, while protecting sensitive resources and objects of interest (p. 56).* *Removal of trees, except for personal use fuelwood, from within the monument area may take place only if clearly needed for ecological restoration and maintenance or public safety (p. 80).* *Any projects which propose the felling of trees inside the Monument will be subject to the following five criteria... (p. 81).* (See Table 1 in this document) *Fell and/or remove snags as needed to address imminent safety hazards* (p. 89).

Pages 81-82 of the Monument Plan presents five criteria to apply when evaluating the need for tree felling within the Monument. The following table shows the evaluation of the criteria.

Table 1: Tree Felling Criteria		
Criteria	**Language**	**Evaluation**
F1 Resiliency	If maintaining one or more standing trees on a site would deplete moisture, light or nutritional resources critical to the health and survival of the plant community or forest	This criterion does not apply to this project. The trees are dead or dying.
F2 Regeneration	If maintaining one or more standing trees on a site would adversely affect the regeneration, longevity, or growth of giant sequoias and other desired species.	This criterion does not apply to this project. The trees are dead or dying.
F3 Heterogeneity	If maintaining one or more standing trees on a site would adversely affect the desired diversity or structure of a stand or forest.	This criterion does not apply to this project. The trees are dead or dying.
F4	If maintaining one or more standing trees on site would create a public safety hazard.	The consequences of leaving these trees to fall are threats to human health

Public Safety	Forest Service policy is to mitigate safety hazards from recreation sites, administrative sites and the public transportation system of roads and trails, including trees or tree limbs identified as hazardous (FSM 2330.6(a))	and safety. None of the trees to be felled are giant sequoias.
F-5 Recreation and Administrative Sites	Other projects that may be proposed in the Monument that could require tree felling include recreation or administrative site development and maintenance, scenic vistas and road access and parking for these sites.	The George Bush Trail is a developed trail loop.

Page 83 of the Monument Plan describes a decision tree used to determine which methods of forest restoration and maintenance should apply at different locations. The following table evaluates the four considerations shown in the decision tree for this project.

Table 2: Decision Tree for Site-Specific Projects in the Monument

Decision Point	Evaluation Related to Project
1 – Use of Managed Wildfire	Managed wildfire is not feasible for eliminating the dead trees because of the uncertainty of when a wildfire may occur in this specific area. The trees represent a clear and present danger that must be addressed in the short-term.
2 – Use of Prescribed Burning	Prescribed burning would not be feasible due to the fuel loading within the vicinity of the trail, and burning the trees adds uncertainty regarding how they may fall. The trees need to felled away from the trail and any trail infrastructure they threaten.
3 – Use of Mechanical Treatment without Tree Removal	Mechanical treatment is feasible. Mechanical treatment only would not fully meet the purpose and need because leaving all the felled trees on site would create unacceptable levels of fuels, which would threaten the giant sequoias.
4 – Use of Mechanical Treatments with Tree Removal	It is prudent to remove some of the material to reduce the fuel loading once the hazard trees are felled. Some material will be left on site to meet the Monument design criteria for downed woody material.

I have determined there is a clear need to remove the trees from Giant Sequoia National Monument to provide for public safety and reduce fuel loading at the George Bush Trail once the trees are felled.

Removal from the Monument as defined in the plan can include chipping, burning or hauling off the Monument. I evaluated the removal criteria on page 81 of the Monument Plan. The applicable criteria are:

Plan Criteria	Determination
Protection of Objects of Interest If keeping one or more trees on site would cause unacceptable fuels accumulation and fire severity effects; if removing trees would reduce the risk of wildfire to the giant sequoia groves, sensitive wildlife habitat, and adjacent communities at risk	I have determined the number of felled trees, if left in place, would increase the amount of surface fuel to a level incompatible with historic fire return intervals thereby increasing the risk of loss to the objects of interest for which the monument was created.
Public Safety If keeping one or more trees on site would create a public safety hazard or attractive nuisance.	I have determined the number of felled trees, if left in place, would increase the amount of surface fuel to a level incompatible with historic fire return intervals. If these fuels are left in place, it would be a public safety hazard in the event of a wildfire. This would put members of the public in danger. Additionally, trails are frequently used as holding points and fuel breaks for wildfires fire. A high level of fuel loading would make the trail unsafe to use as a holding point or fuel break in the event of a wildfire

Resource specialists have evaluated the potential impacts of this proposed action. No outstanding resource concerns have been identified. Best management practices and applicable design criteria from the Monument Plan will be followed.

Based on there being no resource concerns and my familiarity with projects similar in nature, I have determined that no extraordinary circumstances exist, and a higher level of analysis is not necessary.

I have determined this project falls within two categories of actions listed in 36 CFR 220.6 that may be excluded from documentation in an Environmental Impact Statement or Environmental Assessment. These particular categories are found at:

- 36 CFR § 220.6(d) (4) *Repair/maintain roads, trails, and landline boundaries* and
- 36 CFR § 220.6(d) (5) *Repair and maintenance of recreation sites and facilities*

This is not a project or activity implementing a land and resource management plan that is documented in a decision memo, decision notice, or record of decision. There are no extraordinary circumstances that would necessitate an environmental impact statement or an environmental assessment.

This project may be implemented immediately.