



# United States Department of the Interior

## NATIONAL PARK SERVICE

Yosemite National Park  
P. O. Box 577  
Yosemite, California 95389

IN REPLY REFER TO:  
L7615(YOSE-PM)

### Memorandum

**To:** Alison Colwell, Project Manager, Yosemite National Park

**From:** Superintendent, Yosemite National Park

**Subject:** NEPA and NHPA Clearance: 2015-011 Merced Grove Giant Sequoia Restoration Fence Installation (57827)

The Executive Leadership Team has reviewed the proposed project and completed its environmental assessment documentation, and we have determined the following:

- There will not be any effect on threatened, endangered, or rare species and/or their critical habitat.
- There will be no adverse effect on historical, cultural, or archeological resources.
- There will not be serious or long-term undesirable environmental or visual effects.

The subject proposed project, therefore, is now cleared for all NEPA and NHPA compliance requirements as presented above. Project plans and specifications are approved and construction and/or project implementation can commence.

For the proposed project actions to be within compliance requirements during construction and/or project implementation, the following mitigations must be adhered to:

- No signs should be placed on fencing until it is determined whether they are necessary to achieve the desired visitor behavior.

### Recommendations for Conditions or Stipulations:

None

For complete compliance information see PEPC Project 57827.

//Don L. Neubacher//

Don L. Neubacher

Enclosure (with attachments)

cc: Statutory Compliance File

*The signed original of this document is on file at the  
Environmental Planning and Compliance Office in  
Yosemite National Park.*



## Categorical Exclusion Form

**Project:** 2015-011 Merced Grove Giant Sequoia Restoration Fence Installation

**PEPC Project Number:** 57827

### **Project Description:**

The imminent closure of the Mariposa Grove is expected to significantly raise the level of visitation to Merced and Tuolumne Groves. The cumulative impact of larger numbers of visitors in the Merced Grove may lead to accelerated damage to tree root systems, wear of bark on lower tree trunks and unacceptable levels of visual and environmental deterioration in the core of the grove.

This project will install approximately 170 feet of new zig-zag style fencing as a protection measure, while maintaining as unconstrained a visitor experience as possible. The locations for proposed fencing installation are two clusters of sequoias adjacent to the Merced Grove trail that receive considerable impact. Visitors are approaching the base of large sequoia trees at the following two sites:

- 1) A cluster of large adult sequoias at the entrance to the grove. Fencing will follow the trajectory of the trail and cut off direct access to the trees. This section of fencing will be approximately 100 feet long. The fencing site is gently sloped away from the trees.
- 2) Two of the largest sequoias in the grove, which are located directly across the trail from the Merced Grove Cabin. Current use has resulted in considerable impact to the base of these two large sequoias, including some 'eco-graffiti' in a fire scar on one of the trees. This site is flat and will consist of 70 feet of new fencing.

The proposed type of fencing for this project is the 'parallel zig-zag' style that is consistent with style and dimensions of existing fencing in both the Mariposa Grove and Tuolumne Grove. This style of fencing minimizes impacts to giant sequoia roots and archaeological sites and does not require post holes to be dug as anchors. It is also the least costly to remove if found to no longer be needed in the future. Because of the fence's zig-zag design, it is largely self-supporting, but is designed to be anchored with ½ inch gauge rebar at a depth of 12 inches for added stability. Rebar is installed at the end of each 10 foot cedar rail. The proposed total fencing length is approximately 170 feet, which will require 19 rebar reinforcement rods to be installed. The zig-zag fencing is approximately 4 feet wide and 3 feet tall.

### **Project Locations:**

Tuolumne County, CA

### **Mitigations:**

- No signs should be placed on fencing until it is determined whether they are necessary to achieve the desired visitor behavior.

**Describe the category used to exclude action from further NEPA analysis and indicate the number of the category (see Section 3-4 of DO-12):**

C.17 Construction of fencing enclosures or boundary fencing posing no effect on wildlife migrations.

**On the basis of the environmental impact information in the statutory compliance file, with which I am familiar, I am categorically excluding the described project from further NEPA analysis. No exceptional circumstances (e.g. all boxes in the ESF are marked "no") or conditions in Section 3-6 apply, and the action is fully described in Section 3-4 of DO-12.**

**Superintendent:** //Don L. Neubacher//                      **Date:** 6/1/15  
Don L. Neubacher

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Yosemite National Park.*



## ENVIRONMENTAL SCREENING FORM (ESF)

### DO-12 APPENDIX 1

Date Form Initiated: 05/13/2015

Updated May 2007 - per 2004 Departmental Manual revisions and proposed Director's Order 12 changes

#### A. PROJECT INFORMATION

**Park Name:** Yosemite National Park  
**Project Title:** 2015-011 Merced Grove Giant Sequoia Restoration Fence Installation  
**PEPC Project Number:** 57827  
**Project Type:** Resource Protection (PROT)  
**Project Location:**  
**County, State:** Mariposa, California  
**Project Leader:** Alison Colwell

Is project a hot topic (controversial or sensitive issues that should be brought to attention of Regional Director)?

#### B. RESOURCE EFFECTS TO CONSIDER:

Identify potential effects to the following physical, natural, or cultural resources	No Effect	Negligible Effects	Minor Effects	Exceeds Minor Effects	Data Needed to Determine/Notes
1. Geologic resources – soils, bedrock, streambeds, etc.		Negligible			Rebar will be installed in 19 locations to support the cedar posts. These are 0.5 inches in diameter and 12 inches deep.
2. From geohazards	No				
3. Air quality	No				
4. Soundscapes		Negligible			The work proposed will last four days. A chainsaw and power drill will be used during the installation.
5. Water quality or	No				

<b>Identify potential effects to the following physical, natural, or cultural resources</b>	<b>No Effect</b>	<b>Negligible Effects</b>	<b>Minor Effects</b>	<b>Exceeds Minor Effects</b>	<b>Data Needed to Determine/Notes</b>
quantity					
6. Streamflow characteristics	No				
7. Marine or estuarine resources	No				
8. Floodplains or wetlands	No				
9. Land use, including occupancy, income, values, ownership, type of use	No				
10. Rare or unusual vegetation – old growth timber, riparian, alpine	No				
11. Species of special concern (plant or animal; state or federal listed or proposed for listing) or their habitat	No				
12. Unique ecosystems, biosphere reserves, World Heritage Sites	No				Yosemite National Park is a World Heritage Site.
13. Unique or important wildlife or wildlife habitat	No				
14. Unique or important fish or fish habitat	No				
15. Introduce or promote non-native species (plant or animal)	No				
16. Recreation resources, including supply,	No				

<b>Identify potential effects to the following physical, natural, or cultural resources</b>	<b>No Effect</b>	<b>Negligible Effects</b>	<b>Minor Effects</b>	<b>Exceeds Minor Effects</b>	<b>Data Needed to Determine/Notes</b>
demand, visitation, activities, etc.					
17. Visitor experience, aesthetic resources	No				The goal of this project is to protect the Giant sequoias which will enhance the visitor experience for many years to come.
18. Archeological resources	No				
19. Prehistoric/historic structure		Negligible			Merced Grove Ranger Station
20. Cultural landscapes	No				
21. Ethnographic resources	No				
22. Museum collections (objects, specimens, and archival and manuscript collections)	No				
23. Socioeconomics, including employment, occupation, income changes, tax base, infrastructure	No				
24. Minority and low income populations, ethnography, size, migration patterns, etc.	No				
25. Energy resources	No				
26. Other agency or tribal land use plans or policies	No				
27. Resource,	No				

Identify potential effects to the following physical, natural, or cultural resources	No Effect	Negligible Effects	Minor Effects	Exceeds Minor Effects	Data Needed to Determine/Notes
including energy, conservation potential, sustainability					
28. Urban quality, gateway communities, etc.	No				
29. Long-term management of resources or land/resource productivity	No				
30. Other important environment resources (e.g. geothermal, paleontological resources)?	No				

**C. MANDATORY CRITERIA**

Mandatory Criteria: If implemented, would the proposal:	Yes	No	N/A	Comment or Data Needed to Determine
A. Have significant impacts on public health or safety?		No		
B. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?		No		
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available		No		

<b>Mandatory Criteria: If implemented, would the proposal:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Comment or Data Needed to Determine</b>
resources (NEPA section 102(2)(E))?				
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?		No		
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?		No		
F. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?		No		
G. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office?		No		
H. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?		No		
I. Violate a federal law, or a state, local, or tribal law or requirement imposed for the protection of the environment?		No		
J. Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898)?		No		
K. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007)?		No		
L. Contribute to the introduction, continued existence, or spread of		No		



<b>Mandatory Criteria: If implemented, would the proposal:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Comment or Data Needed to Determine</b>
noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?				

**For the purpose of interpreting these procedures within the NPS, any action that has the potential to violate the NPS Organic Act by impairing park resources or values would constitute an action that triggers the DOI exception for actions that threaten to violate a federal law for protection of the environment.**

**D. OTHER INFORMATION**

1. Are personnel preparing this form familiar with the site? Yes
- 1.A. Did personnel conduct a site visit? No
2. Is the project in an approved plan such as a General Management Plan or an Implementation Plan with an accompanying NEPA document? No
3. Are there any interested or affected agencies or parties? No
4. Has consultation with all affected agencies or tribes been completed? Yes, April Tribal Spreadsheet; no comments received.
5. Are there any connected, cumulative, or similar actions as part of the proposed action? (e.g., other development projects in area or identified in GMP, adequate/available utilities to accomplish project) No

**E. INTERDISCIPLINARY TEAM SIGNATORIES**

<u><b>Interdisciplinary Team</b></u>	<u><b>Field of Expertise</b></u>
Don L. Neubacher	Superintendent
Kathleen Morse	Chief of Planning
Randy Fong	Chief of Project Management
Jeff Hilliard	Chief of Administration Management
Ron Borne	Chief of Facilities Management
Linda C. Mazzu	Chief of Resources Management & Science
Kris Kirby	Chief of Business and Revenue Management
Tom Medema	Chief of Interpretation and Education
Kevin Killian	Chief of Visitor and Resource Protection
Alison Colwell	Project Leader
Madelyn Ruffner	Environmental Planning and Compliance Program Manager
Renea Kennec	NEPA Specialist

**F. SUPERVISORY SIGNATORY**

*Based on the environmental impact information contained in the statutory compliance file and in this environmental screening form, environmental documentation for this stage of the subject project is complete.*

**Recommended:**

Compliance Specialists	Date
<u>//Renea Kennec//</u> Compliance Specialist – Renea Kennec	_____
<u>//Madelyn Ruffner//</u> Compliance Program Manager – Madelyn Ruffner	_____
<u>//Randy Fong//</u> Chief, Project Management – Randy Fong	_____

**Approved:**

Superintendent	Date
<u>//Don L. Neubacher//</u> Don L. Neubacher	_____

*The signed original of this document is on file at the Environmental Planning and Compliance Office in Yosemite National Park.*



## PARK ESF ADDENDUM

Today's Date: May 13, 2015

### PROJECT INFORMATION

**Park Name:** Yosemite National Park  
**Project Title:** 2015-011 Merced Grove Giant Sequoia Restoration Fence Installation  
**PEPC Project Number:** 57827  
**Project Type:** Resource Protection (PROT)  
**Project Location:**  
**County, State:** Mariposa, California  
**Project Leader:** Alison Colwell

### PARK ESF ADDENDUM QUESTIONS & ANSWERS

ESF Addendum Questions	Yes	No	N/A	Data Needed to Determine/Notes
<b>SPECIAL STATUS SPECIES CHECKLIST</b>				
Listed or proposed threatened or endangered species (Federal or State)?		No		
Species of special concern (Federal or State)?		No		
Park rare plants or vegetation?		No		
Potential habitat for any special-status species listed above?		No		
<b>NATIONAL HISTORIC PRESERVATION ACT CHECKLIST</b>				
Entail ground disturbance?	Yes			Rebar will be installed in 19 locations to support the cedar posts. These are 0.5 inches in diameter and 12 inches deep.
Are any archeological or ethnographic sites located within the area of potential effect?	Yes			There are documented historic features that are associated with the historic road, however no features are located within the APE.
Entail alteration of a historic structure or cultural landscape?		No		
Has a National Register form been completed?		No		

<b>ESF Addendum Questions</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Data Needed to Determine/Notes</b>
Are there any structures on the park's List of Classified Structures in the area of potential effect?		No		
<b>WILD AND SCENIC RIVERS ACT CHECKLIST</b>				
Fall within a wild and scenic river corridor?		No		
Fall within the bed and banks AND will affect the free-flow of the river?		No		
Have the possibility of affecting water quality of the area?		No		
Remain consistent with its river segment classification?			N/A	
Fall on a tributary of a Wild and Scenic River?		No		
Will the project encroach or intrude upon the Wild and Scenic River corridor?		No		
Will the project unreasonably diminish scenic, recreational, or fish and wildlife values?		No		
<b>WILDERNESS ACT CHECKLIST</b>				
Within designated Wilderness?		No		
Within a Potential Wilderness Addition?		No		



## ASSESSMENT OF ACTIONS HAVING AN EFFECT ON HISTORIC PROPERTIES

### A. DESCRIPTION OF UNDERTAKING

1. **Park:** Yosemite National Park

2. **Project Description:**

**Project Name:** 2015-011Merced Grove Giant Sequoia Restoration Fence Installation

**Prepared by:** Renea Kennec    **Date Prepared:** 05/18/2015    **Telephone:** 209-379-1038

**PEPC Project Number:** 57827

**Area of potential effects (as defined in 36 CFR 800.16[d])**

Project area; Merced Grove Ranger Station

3. **Has the area of potential effects been surveyed to identify historic properties?**

No

Yes

**Source or reference:**

4. **Potentially Affected Resources:** None

5. **The proposed action will: (check as many as apply)**

No Destroy, remove, or alter features/elements from a historic structure

No Replace historic features/elements in kind

No Add non-historic features/elements to a historic structure

Alter or remove features/elements of a historic setting or environment

No (inc. terrain)

Add non-historic features/elements (inc. visual, audible, or atmospheric)

No to a historic setting or cultural landscape

No Disturb, destroy, or make archeological resources inaccessible

Disturb, destroy, or make ethnographic resources inaccessible

Yes Potentially affect presently unidentified cultural resources

Begin or contribute to deterioration of historic features, terrain, setting,

No landscape elements, or archeological or ethnographic resources

Involve a real property transaction (exchange, sale, or lease of land or

No structures)

Other (please  
specify): \_\_\_\_\_

**6. Supporting Study Data:**

(Attach if feasible; if action is in a plan, EA or EIS, give name and project or page number.)

**B. REVIEWS BY CULTURAL RESOURCE SPECIALISTS**

**The park 106 coordinator requested review by the park's cultural resource specialist/advisors as indicated by check-off boxes or as follows:**

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Anthropologist

Name: Mike Turek

Date: 05/14/2015

*Check if project does not involve ground disturbance*

Assessment of Effect:  No Potential to Cause Effect  No Historic Properties Affected  No  
Adverse Effect  Adverse Effect  Streamlined Review

Recommendations for conditions or stipulations:

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Archeologist

Name: Sara Dolan

Date: 04/24/2015

Comments: The proposed fence locations are adjacent to linear archaeological site CA-MRP-1266H (Old Coulterville Rd). There are documented historic features that are associated with the historic road, however no features are located within the APE.

*Check if project does not involve ground disturbance*

Assessment of Effect:  No Potential to Cause Effect  No Historic Properties Affected  No  
Adverse Effect  Adverse Effect  Streamlined Review

Recommendations for conditions or stipulations:

Doc Method: Park Specific Programmatic Agreement

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Historical Architect

Name: Charles Tonetti

Date: 04/23/2015

Comments: No historic structures are impacted by the work.

*Check if project does not involve ground disturbance*

Assessment of Effect:  No Potential to Cause Effect  No Historic Properties Affected  No  
Adverse Effect  Adverse Effect  Streamlined Review

Recommendations for conditions or stipulations:

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Historical Landscape Architect

Name: Kevin McCardle

Date: 05/01/2015

Assessment of Effect Form - Merced Grove Giant Sequoia Restoration Fence Installation - PEPC ID: 57827

Check if project does not involve ground disturbance [ ]

Assessment of Effect:  No Potential to Cause Effect  No Historic Properties Affected  No

Adverse Effect  Adverse Effect  Streamlined Review

Recommendations for conditions or stipulations:

Doc Method: Park Specific Programmatic Agreement

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**No Reviews From:** Curator, Historian, 106 Advisor, Other Advisor

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## C. PARK SECTION 106 COORDINATOR'S REVIEW AND RECOMMENDATIONS

### 1. Assessment of Effect:

- No Potential to Cause Effects  
 No Historic Properties Affected  
 No Adverse Effect  
 Adverse Effect

### 2. Documentation Method:

[ ] A. STANDARD 36 CFR PART 800 CONSULTATION

Further consultation under 36 CFR Part 800 is needed.

[ ] B. STREAMLINED REVIEW UNDER THE 2008 SERVICEWIDE PROGRAMMATIC AGREEMENT (PA)

The above action meets all conditions for a streamlined review under section III of the 2008 Servicewide PA for Section 106 compliance.

APPLICABLE STREAMLINED REVIEW Criteria  
(Specify 1-16 of the list of streamlined review criteria.)

[ ] C. PLAN-RELATED UNDERTAKING

Consultation and review of the proposed undertaking were completed in the context of a plan review process, in accordance with the 2008 Servicewide PA and 36 CFR Part 800.  
Specify plan/EA/EIS:

[ X ] D. UNDERTAKING RELATED TO ANOTHER AGREEMENT

The proposed undertaking is covered for Section 106 purposes under another document such as a statewide agreement established in accord with 36 CFR 800.7 or counterpart regulations.

#### **1999 Programmatic Agreement as amended in 2014.**

[ ] E. COMBINED NEPA/NHPA Document

Documentation is required for the preparation of an EA/FONSI or an EIS/ROD has been developed and used so as also to meet the requirements of 36 CFR 800.3 through 800.6

[ ] G. Memo to SHPO/THPO

[ ] H. Memo to ACHP

SHPO/THPO Notes:

**3. Additional Consulting Parties Information:**

**Additional Consulting Parties: No**

**4. Stipulations and Conditions:**

**Following are listed any stipulations or conditions necessary to ensure that the assessment of effect above is consistent with 36 CFR Part 800 criteria of effect or to avoid or reduce potential adverse effects.**

**5. Mitigations/Treatment Measures:**

**Measures to prevent or minimize loss or impairment of historic/prehistoric properties:  
(Remember that setting, location, and use may be relevant.)**

**No Assessment of Effect mitigations identified.**

**D. RECOMMENDED BY PARK SECTION 106 COORDINATOR:**

**Historic Preservation Officer:**

Kimball

Koch

//Kimball Koch//

**Date:** 5/19/15

**E. SUPERINTENDENT'S APPROVAL**

**The proposed work conforms to the NPS *Management Policies and Cultural Resource Management Guideline*, and I have reviewed and approve the recommendations, stipulations, or conditions noted in Section C of this form.**

**Superintendent:** //Don L. Neubacher//

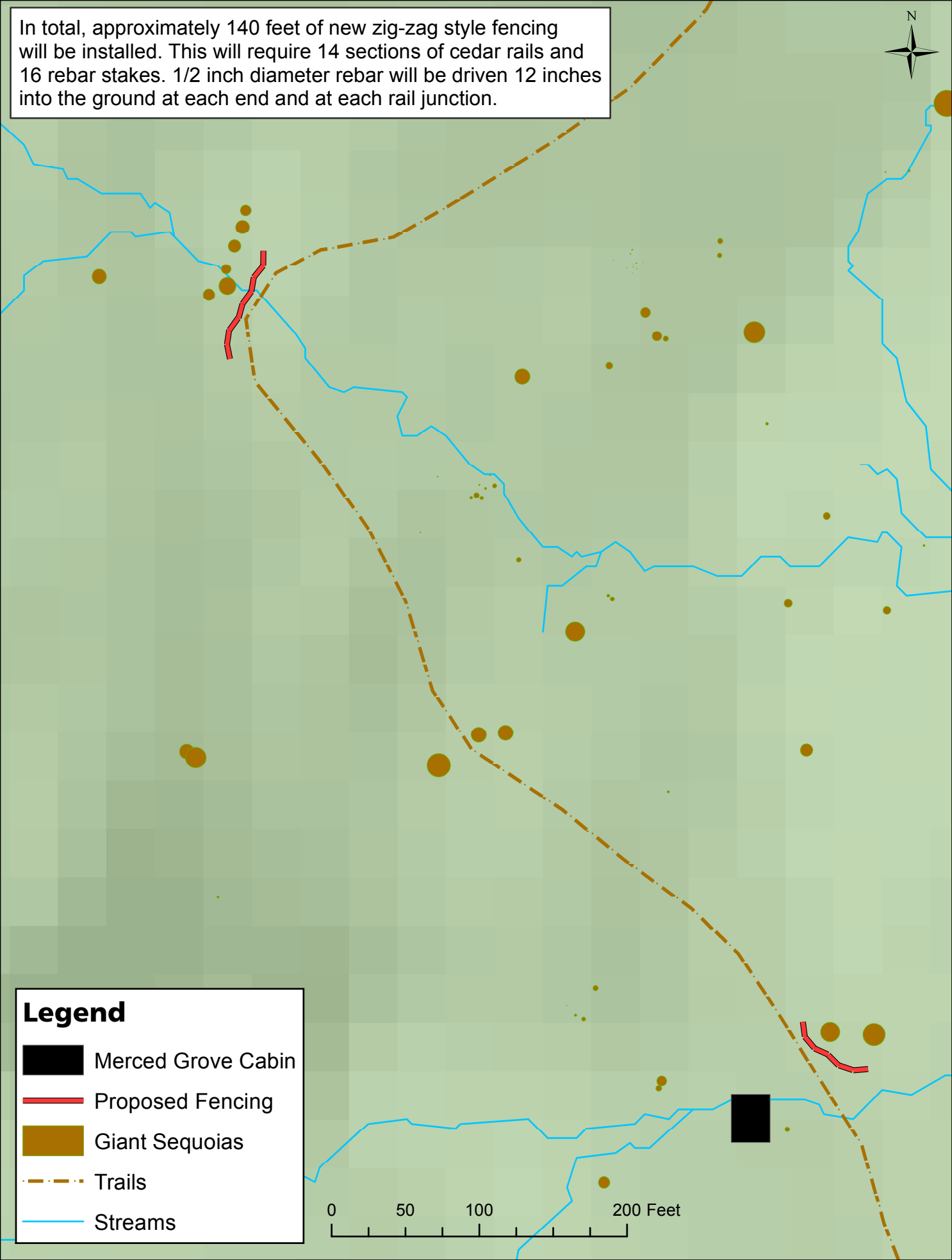
**Date:** 6/1/15

Don L. Neubacher

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Yosemite National Park.*

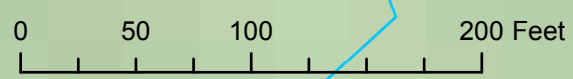


In total, approximately 140 feet of new zig-zag style fencing will be installed. This will require 14 sections of cedar rails and 16 rebar stakes. 1/2 inch diameter rebar will be driven 12 inches into the ground at each end and at each rail junction.



**Legend**

- Merced Grove Cabin
- Proposed Fencing
- Giant Sequoias
- Trails
- Streams

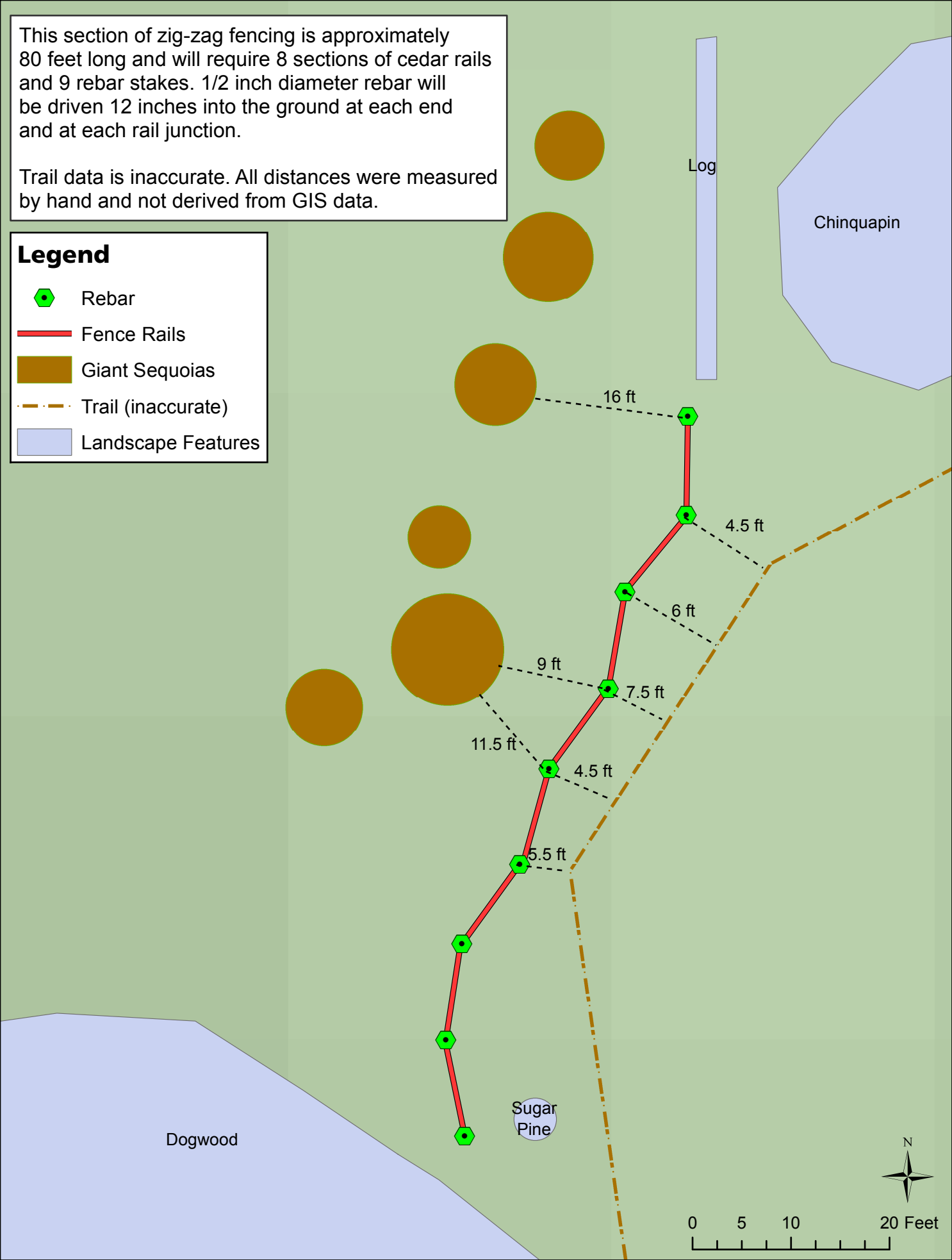


This section of zig-zag fencing is approximately 80 feet long and will require 8 sections of cedar rails and 9 rebar stakes. 1/2 inch diameter rebar will be driven 12 inches into the ground at each end and at each rail junction.







Trail data is inaccurate. All distances were measured by hand and not derived from GIS data.

**Legend**

- Rebar
- Fence Rails
- Giant Sequoias
- Trail (inaccurate)
- Landscape Features

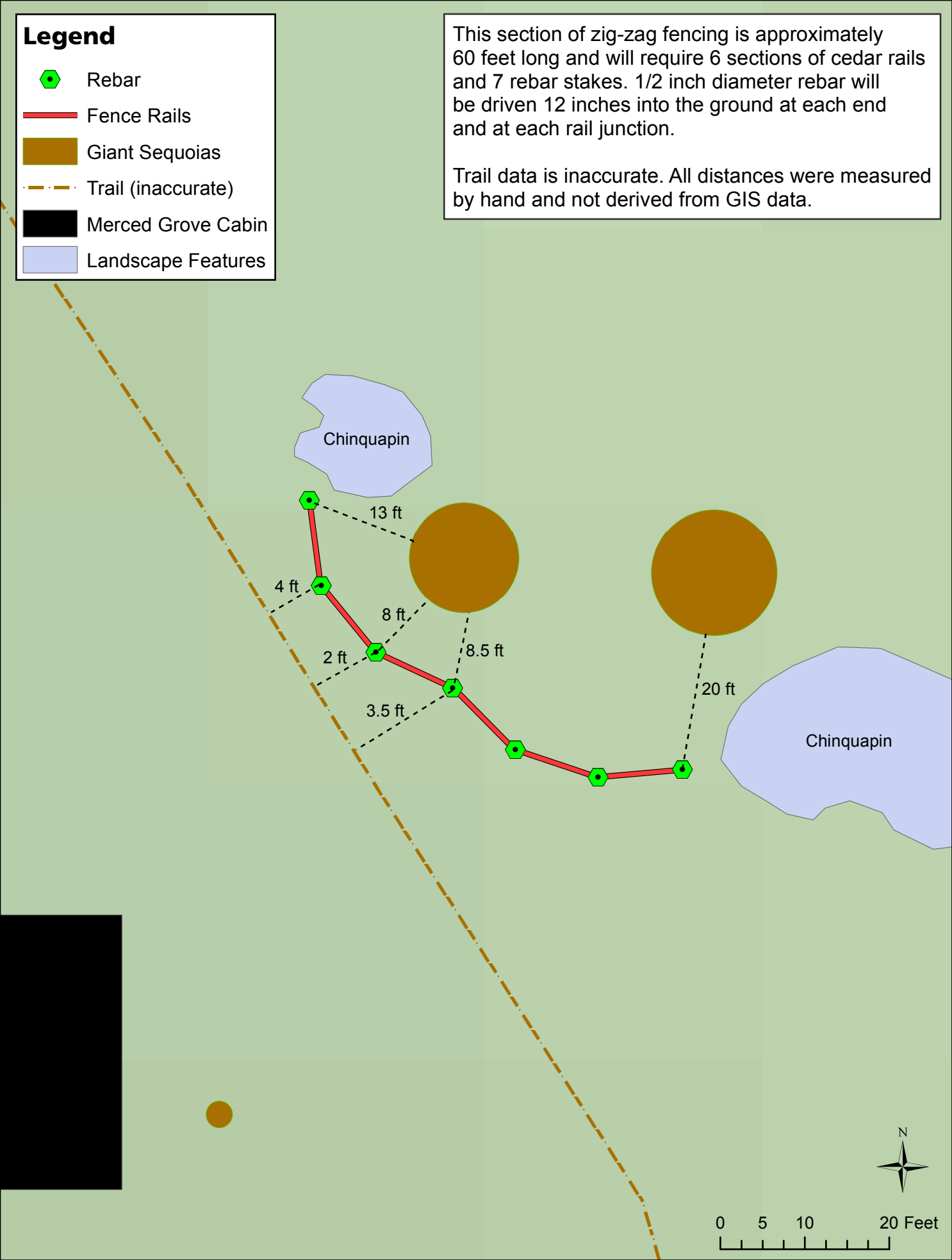


# Legend

-  Rebar
-  Fence Rails
-  Giant Sequoias
-  Trail (inaccurate)
-  Merced Grove Cabin
-  Landscape Features

This section of zig-zag fencing is approximately 60 feet long and will require 6 sections of cedar rails and 7 rebar stakes. 1/2 inch diameter rebar will be driven 12 inches into the ground at each end and at each rail junction.

Trail data is inaccurate. All distances were measured by hand and not derived from GIS data.

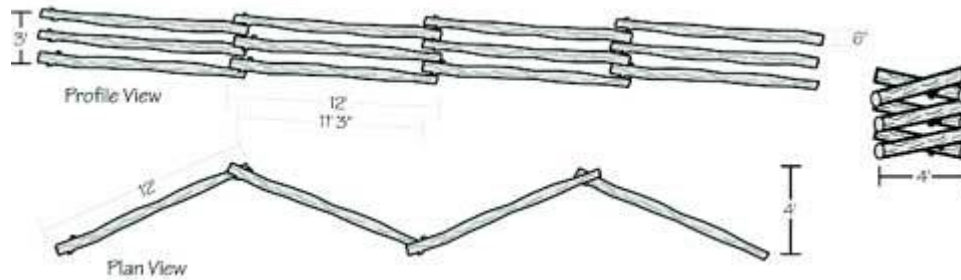


## Fence Design: Parallel Zigzag

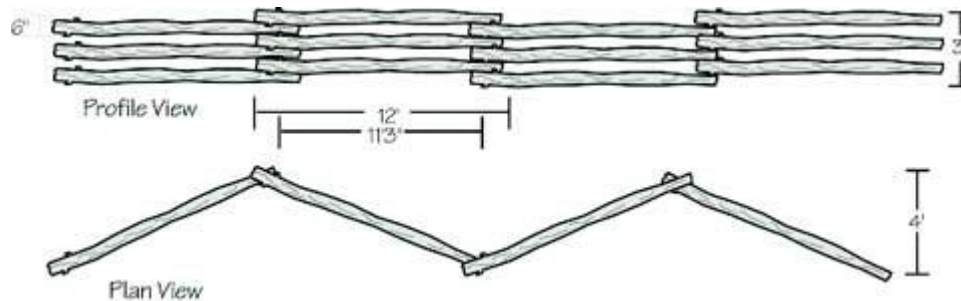
There are two types of zigzag fences. They are differentiated by how the rails are stacked.

This fence takes a 4-foot swath. Because it does not require any fenceposts, it is perfectly designed for archeological sites. Depending on the message desired, it could be two, three, or four rails high. This is an easy fence to build well, requiring minimal skills.

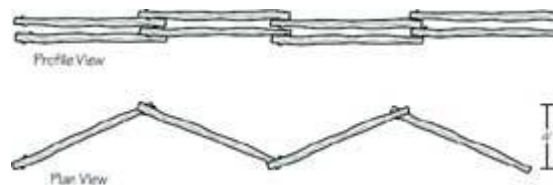
A wide range of rail size and quality can be used. It is not appropriate on steep slopes or where only a narrow swath is available. [See [figures E3, E4, and E5.](#)]



**Figure E3—Under/over zigzag fence.**



**Figure E4—Parallel zigzag fence.**



**Figure E5—Short zigzag fence.**

Application criteria:

- oak woodlands
- fern understory areas
- riparian areas
- archeological sites

Materials required:

- 12-ft rails
- 6-in spikes
- 3-ft rebar

Tools required: hand sledge, tape measure line, drill with a long 2-in bit. The design is securely spiked together using  $\frac{1}{2}$ " rebar.