Protection of the Mariposa Grove

“An Act Authorizing a Grant to the State of California of the “Yo-Semite Valley,” and of the Land embracing the “Mariposa Big Tree Grove”

--- signed by President Lincoln, June 30, 1864.

The first legislation passed by Congress to specifically set aside public lands for their scenic values and “be held for public uses, resort and recreation.”

Wawona Tunnel Tree ca.1928
General Management Plan (NPS, 1980)

Mariposa Grove Goals:
- Provide only visitor facilities consistent with preservation of the unique ecosystem;
- Remove all other facilities not necessary for the enjoyment of the resources

South Entrance Goals
- Provide park orientation and information/reservation system
- Provide staging facilities for Mariposa Grove
- Provide adequate road to Mariposa Grove for buses
Project Need

Today, the Mariposa Grove is a popular all-season destination for visitors to Yosemite. Existing visitor use and site infrastructure are severely impacting the health of the ancient trees as well as the quality of the visitor experience.
Project Purpose

- Restore degraded Grove habitat
- Enhance the visitor experience
- Sustain long-term health of the Giant Sequoias
Issues Include:

**Natural Resources**
Giant sequoias have shallow surface roots. Healthy root structure is essential to ensure the longevity of these ancient giant trees.

**Infrastructure**
Existing infrastructure, including the tram fueling station, parking lot and gift shop, are located in prime sequoia habitat within the Grove.

**Sense of Arrival**
The arrival experience can be confusing and frustrating for visitors.

**Congestion**
The site has outgrown its ability to address current visitation needs.
Public Scoping Comments

Visitor Use and Experience
• Manage visitation impacts to the Grove
• Improve accessibility (universal design)
• Trail signs are inadequate and confusing
• Gift shop is not an appropriate “welcome”
• Restrooms are completely inadequate

Protecting the Grove
• Establish more fencing to protect trees and to keep visitors on trails
• Sustainability of Grove health for the next 150-plus years is important
• Remove those portions of the tram and roads that are damaging trees and compacting soil
• Maintain burns to help sequoias ecologically
Public Scoping Comments

**Transportation**
- Parking at South Entrance is not sufficient
- Establish shuttle directly out of South Entrance vs. Wawona
- Remove Lower Grove parking lot
- Remove tram from Upper Grove but keep in Lower Grove

**Soundscape**
- Noise from buses and trams carry throughout Grove

**NEPA Process**
- Planning and Design should be coordinated with MRP planning process
Related Planning Efforts

- 1987 South Entrance/Mariposa Grove Concept Plan
- 2009 South Entrance Station Improvements (ARG Design Study)
- 2011 South Entrance Interim Safety Improvements (CE)
- Merced River Plan (DEIS, in progress)
Data Collection

- Trees
- Hydrology
- Wildlife
- Cultural resources
- Transportation/Visitor Studies
Giant Sequoia Inventory

- 484 adults
- 768 juveniles
- 1,467 Saplings
- ~3,084 seedlings
- ~5,803 live individuals

Restoration of the Mariposa Grove Of Giant Sequoias
Yosemite National Park

National Park Service
U.S. Department of the Interior
Natural Resources:

Giant sequoias and wetlands
Extremely important for giant sequoia longevity, germination and recruitment

- Adults
  - 25% within
  - 54% within 100 feet
- Juveniles
  - 37% within
  - 82% within 100 feet
- Saplings
  - 42% within
  - 68% within 100 feet
- Seedlings
  - 15% within
  - 31% within 100 feet
Hydrology:

- Important for giant sequoia longevity, germination and recruitment
- Roads and trails intercept and concentrate surface and shallow subsurface flow
- Runoff has been channeled through culverts and inside ditches increasing transit rates (less absorption into soil)
- 65% of culverts are compromised or non-functioning
- Infiltration and surface runoff is impacted by compacted soils
- Leaking utility pipes need repair
Natural Resources: Wildlife

Important breeding habitat for three special status species

- Pacific Fisher
- Spotted Owl
- Pallid Bat
“...historic resources, especially those relating to the beginnings of a national conservation ethic; and evidences of the Indians that lived on the land...”
“The California big tree is also in a manner sacred to them [the Mono], and they call it woh-woh'-nau, a word formed in imitation of the hoot of the owl, which is the guardian spirit and deity of this great monarch of the forest.”

- Stephen Powers, 1887
Visitor Use and Transportation Assessment
Design Charettes

- Helps generate ideas and solutions while engaging diverse points of view
- Interdisciplinary discussion
- Addresses design problems
- Typically breaks into sub-groups to address the range of issues
- Reporting out ensures all groups are aware of issues and discussions
Assessment of Site/Infrastructure

Great views of Lower Grove giant sequoia, but subordinated to vehicles, fueling station, and road. Trams and other vehicles park on giant sequoia roots and wetland.

The strongest line of connection at the Lower Grove serves the tram and the gift shop.

Improving Site Accessibility
Study of Visitation Patterns
Incorporating Sustainability

WATER CONSERVATION
- Stormwater management: bioswales, permeable materials
- Water conservation with interpretation
- Constructed wetland for wastewater treatment

ENERGY CONSERVATION
- Renewable energy use
- Energy efficient structures and systems (i.e., passive design)

SUSTAINABLE TRANSPORTATION
- Shuttles and more efficient parking locations equals fewer miles and reduced carbon emissions
Parking Assessment
Exploring Site Design Options: Road Access
Site Test-Fits: Parking for the Grizzly Giant
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South Entrance Site Design Concept #1
South Entrance Site Design Concept #2
South Entrance Site Design Concept #3
Evaluate Draft Design Concepts

Identifying Commonalities
- Improve signage and wayfinding
- Rehabilitate Wawona Point
- Engineered hydrology improvements
- Fix tight curve at MG entry sign
- Move museum function (some)
- View management
- Trail reconfiguration & consolidation
- Improve visitor education
- Interpret prehistoric archeology

Generate ideas for further design, development, and evaluation as the project progresses
Next Steps: Developing Alternatives

- Improve Shuttle Experience
Next Steps: Developing Alternatives

-Looking at ways to improve accessibility in the Grove

[Map showing the Lower Grove area and marked features such as accessible trails and areas with rocky exposures.]

[Photo of the Lower Grove area with people using wheelchairs and benches.]
Next Steps: Developing Alternatives

- Protecting the Trees
Next Steps: Developing Alternatives

-Reducing Paving within the Grove
Next Steps: Developing Alternatives
- Improving Ground Water Retention
Next Steps: Developing Alternatives

- Relocating Trails Away from Sensitive Resources
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Relocating Infrastructure
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Improving the Visitor Experience in the Upper Grove
Project Milestones

**2011**
- May 27: Internal Scoping Kick-off/Site Visit
- August 15: Initiate Consultation w/ Agencies and Tribes
- **August 30**: Public Scoping- Open House/Webinar
- October 14: Public Site Visit
- December 3: Federal Register Notice of Intent to Prepare an EIS

**2012**
- January 5: Consultation with Tribes
- January 24: Design Charette # 1
- **January 25**: Public Open House
- February 3: End Public Scoping
- March 13: Design Charette # 2
Project Milestones

April 25, 2012  Public Open House –Update on Design Charettes/Draft Concepts
May 2  Design Charette # 3
May (TBD)  Consultation site visit with Tribes
May 30  Public Open House
June 5/6  Choosing by Advantages (CBA) Workshop (Identify Preferred Alternative)
June 27  Public Open House
August  Public Review DEIS (60 days) (Public Open House, Site Visit)
December  Comment Analysis and EIS Revision

2013
February 2013  Final EIS published (anticipated)
March  Record of Decision (anticipated)
Project Milestones

- Public Scoping Summer/Fall 2011
- Alternatives Development Winter/Spring 2012
- Yosemite Grant Sesquicentennial June 2014
- National Park Service Centennial August 2016

- 2010: Data Collection
- 2011: Pre-Design
- 2012: Planning & Compliance
- 2013: Design Development
- 2014: Ground Breaking
- 2015: 
- 2016: Ribbon Cutting

- Draft EIS for Public Review Summer 2012
- Final EIS for Public Review December 2012
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Questions?