GIANT SEQUOIA
LANDS COALITION

SURPRISE GROVE

SURPRISE GROVE
OVERVIEW

Relative Overall Vulnerability

MODERATE
5.0

This grove is ranked **MODERATE** for Relative Overall Vulnerability due to:

Wildfire Vulnerability
MODERATE - 5.0

Regen Vulnerability
LOW - 0.3

See the Grove Health & Resilience section below for more information.

Relative Management Priority

MEDIUM
4.0

This grove is ranked **MEDIUM** for Relative Management Priority due to:

Overall Vulnerability
MODERATE - 5.0

Treatment Feasibility
MODERATE - 5.8

See the Management Considerations section below for more information.

Grove Map - click map for more detailed spatial information

Grove Information

Grove Size (Acres)	23
Location	Kaweah River Watershed, Tulare County
Management Unit(s)	Sequoia - Kings Canyon National Park
Land Steward(s)	NPS SEKI

About Surprise Grove

Surprise Grove is a 23-acre grove in the Kaweah River Watershed region situated between 5,166ft - 7,286ft at 36.37861°N. It is located along Bennett Creek, near Palmer Cave, within the South Fork of the Kaweah River watershed. The grove is managed by Sequoia-Kings Canyon National Park. Suprise Grove is quite remote and can only be accessed through difficult cross-country travel.

HEALTH & RESILIENCE

Surprise Grove is ranked **Moderate** for Relative Overall Vulnerability because it is at a **Moderate** risk of being negatively impacted by the effects of severe wildfire and at **Low** risk for inadequate natural regeneration.

Additionally, Surprise Grove is at **Moderate** risk for negative impacts from drought stress, **Low** levels of tree mortality have been detected in the grove, and the presence and activity of beetles in the grove is **Unknown**. 100% of Surprise Grove has burned in large fires since 1984. See below for more detailed information.

Components of Relative Overall Vulnerability

Relative Overall Vulnerability is based on **Wildfire Vulnerability** and **Regeneration Vulnerability** using an area-weighted calculation. See Grove Assessment Analysis Methods 🗗 for more details.

The pie charts below provide the percentage of the grove with high, medium, and low vulnerabilities. Click on the charts to view interactive maps of these vulnerabilities within the grove.
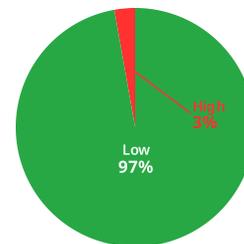
Wildfire Vulnerability
MODERATE - 5.0

Moderate
100%

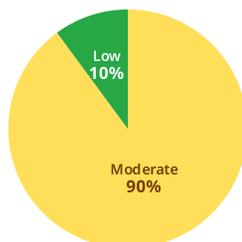### Regeneration Vulnerability
LOW - 0.3

High
3%

Low
97%

Additional Grove Health & Resilience Information

Below is additional information about Surprise Grove's Health & Resilience. These data, their inputs, and any available notes and updates may be found in the Grove Resilience Datasheet 🗗.

Relative Drought Stress
MODERATE

Low
10%

Moderate
90%

Relative Drought Stress in Surprise Grove is Moderate based on an area-weighted average. Click on the chart for an interactive map.

Beetle Activity
UNKNOWN

Beetle Activity in Surprise Grove has not been determined. Please see the Grove Resilience Datasheet 🗗 for details.

Tree Mortality
LOW

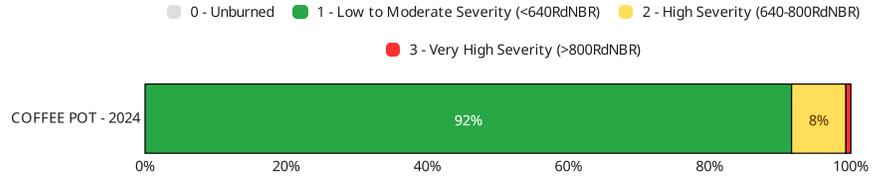Tree Mortality in Surprise Grove is Low according to the most current available USFS dead canopy data. Please see the Grove Resilience Datasheet 🗗 for details.

Wildfire History

The table below provides information about large wildfires in this grove recorded since 1984. See this map of wildfires and locations of high severity fire ⬀.

Wildfires	COFFEE POT - 2024
% of grove burned	100%
% of grove unburned	0%
Fire Return Interval Departure	High

The chart below provides the percentages of the grove burned at different levels of severity for each wildfire since 1984.

- 0 - Unburned
- 1 - Low to Moderate Severity (<640RdNBR)
- 2 - High Severity (640-800RdNBR)
- 3 - Very High Severity (>800RdNBR)

COFFEE POT - 2024: 92% | 8%

MANAGEMENT CONSIDERATIONS

Surprise Grove is ranked **Medium** for Relative Management Priority because it has **Moderate** Relative Overall Vulnerability and **Moderate** feasibility for implementing management actions toward restoration goals.

Additionally, the grove is 2.8 miles from a community and is 1.7 miles from recreational infrastructure. See below for more detailed information.

Components of Relative Management Priority

Relative Management Priority is determined by combining the **Relative Overall Vulnerability** and **Treatment Feasibility** ranks. See Grove Assessment Analysis Methods ⬏ for more details.

Relative Overall Vulnerability

MODERATE - 5.0

See the Health & Resilience section above for the component metrics for the Relative Overall Vulnerability rank.

Treatment Feasibility

MODERATE - 5.8

Special Land Designation	John Krebs Wilderness Area
Grove Manager Opinion	Fuel Treatments are Possible but Limited
Remote	Yes

Additional Management Considerations

Below is additional information relevant to Surprise Grove's Management Considerations. These data, their inputs, and any available notes and updates may be found in the Grove Resilience Datasheet ⬏.

Treatment History

The table below lists treatment projects in and 90 meters around this grove implemented **since 2022**. See this map of grove treatments ⬏.

Treatment Type	% of Grove	Acres
Mechanical Treatments	0%	0
Prescribed Fire	0%	0
Pile Treatments	0%	0
Pile Burns	0%	0
Replanting	0%	0

Management Recommendations

The table below provides an estimate of the percentage and acreage of the grove that are recommended for evaluation for treatment based on the Vulnerability Models. See this map of Grove Vulnerability Models ⬏.

Treatment Need	% of Grove	Acres
Fuels Reduction/Restoration	0%	0
Reforestation	2.8%	0.644

SURPRISE GROVE

REFERENCES

Willard, D. 1994. Giant Sequoia Groves of the Sierra Nevada: A Reference Guide.
Giant Sequoia Health & Resilience Assessment Glossary ⬀
How to Use the Giant Sequoia Health & Resilience Assessment ⬀
Giant Sequoia Health & Resilience Assessment Analysis Methods ⬀

Find more giant sequoia science by searching the GSLC Scientific Publications Library ⬀.

Explore more groves or learn about the Giant Sequoia Lands Coalition.

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