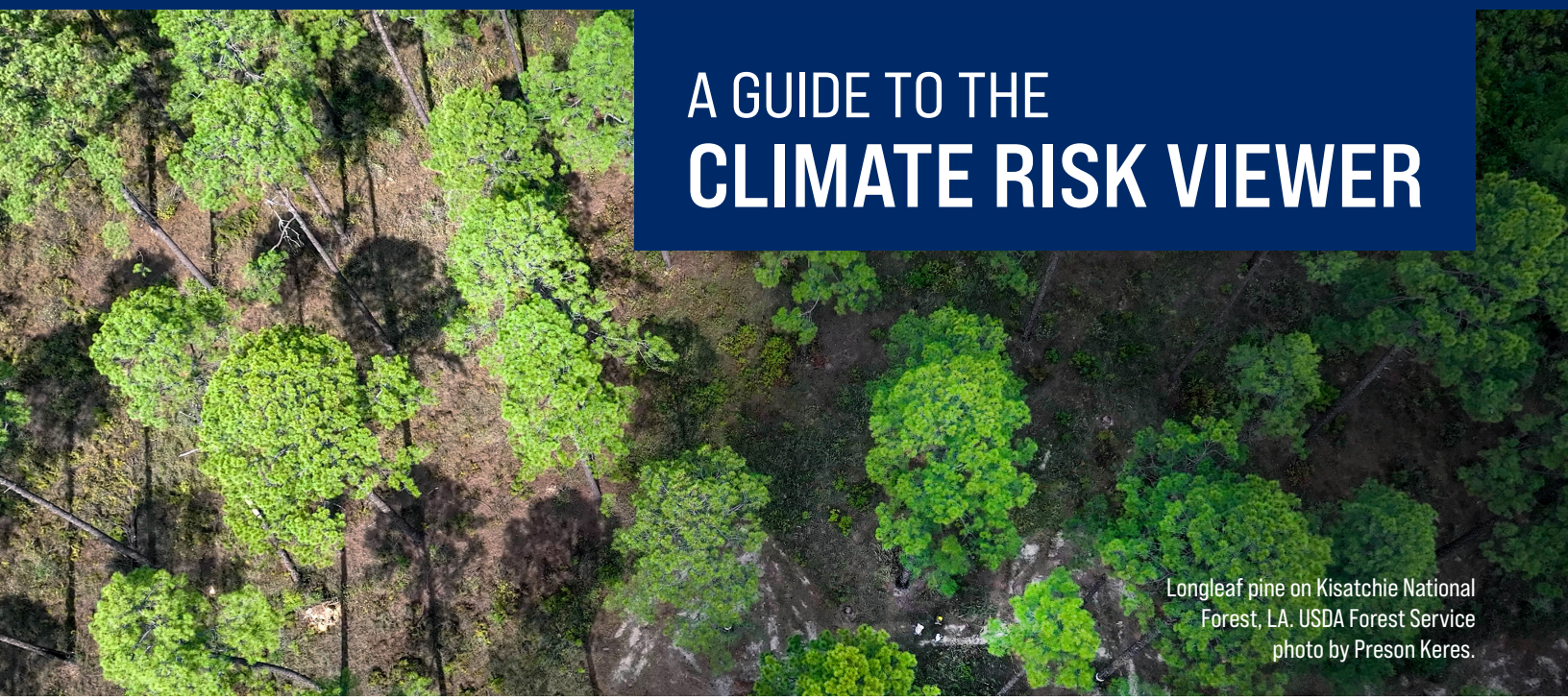
USDA Forest Service
U.S. DEPARTMENT OF AGRICULTURE

FS-1253 | November 2024



A GUIDE TO THE CLIMATE RISK VIEWER

Longleaf pine on Kisatchie National Forest, LA. USDA Forest Service photo by Preson Keres.

Identify climate change vulnerabilities and threats to national forests and grasslands using more than 140 map layers curated by experts.

Created in response to the U.S. Secretary of Agriculture's memo on climate resilience (Memo 1077-004), the Climate Risk Viewer is a one-stop shop for climate-related geospatial data. The viewer presents comprehensive insight into how climate change may affect national forests and grasslands.

Researchers, planners, land managers, students, and members of the public can use the viewer to explore more than 140 data layers to visualize relationships, inform spatial analyses, and identify additional resources related to climate risks and vulnerabilities.

How to use the Climate Risk Viewer?

Explore data:

- Assess the impacts of climate change on wilderness areas and wild and scenic rivers.
- Highlight watersheds where future predicted climate change and demands on water supply will be the greatest.
- Identify areas where mature and old-growth forests on Forest Service and Bureau of Land Management lands are most threatened by future climate change.

Answer questions such as:

- Which areas will experience the largest changes in temperature and snowfall?
- Which forests will be most affected by drought?
- What habitat types are most vulnerable to extreme wildfire?
- Which National Forest System lands have the highest scores for terrestrial condition?

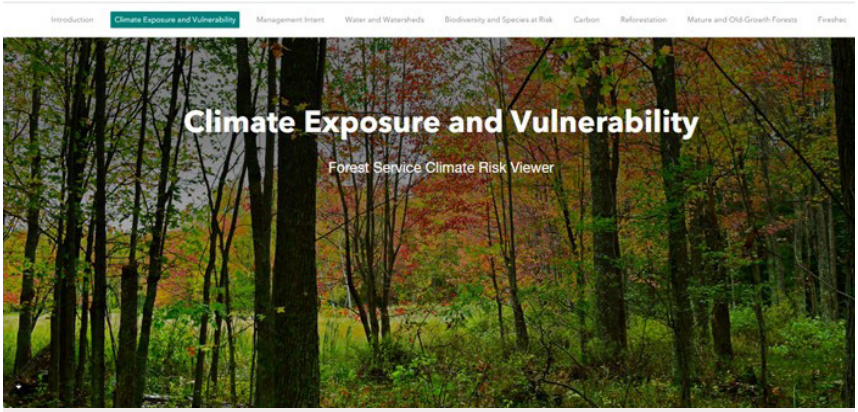
QUICK START GUIDE

1. Navigate to https://arcg.is/WyiTi.

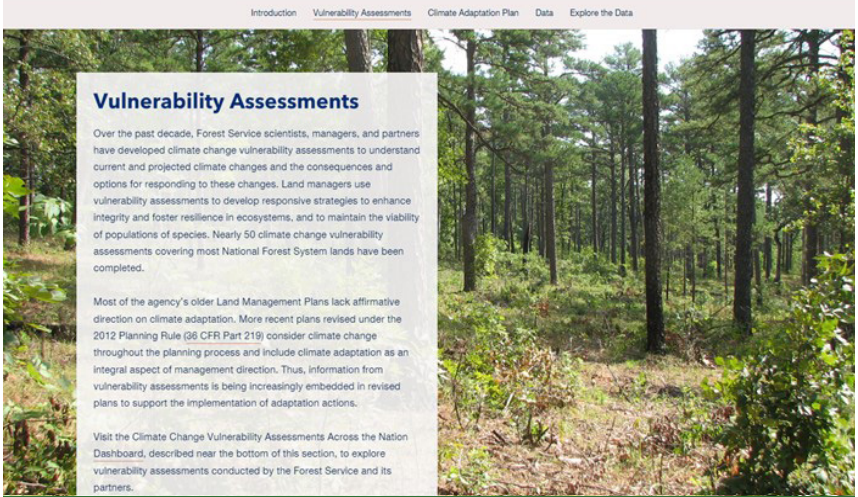
2. View the introduction page to learn about the background of the Climate Risk Viewer and access resources such as the FAQ, data catalog, version history, and citation information.

3. Learn about the themes by clicking on the relevant pages, where each page has a similar structure: an introduction to the theme, relevant tools and reports, descriptions of each dataset, and an interactive map that allows users to explore the datasets. Themes include: Climate Exposure and Vulnerability, Management Intent, Water and Watersheds, Biodiversity and Species at Risk, Carbon, Reforestation, Mature and Old-Growth Forests, and Firesheds.

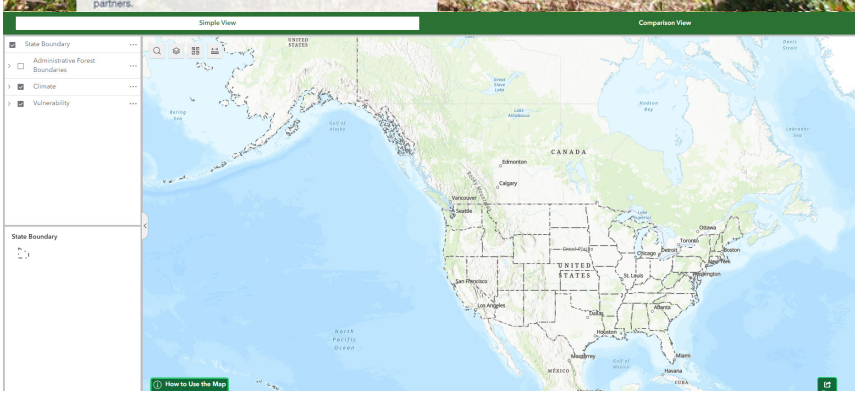
The "All Data" tab contains all data from the Climate Risk Viewer in one place.



Tabs at the top will take you to the other pages in the Climate Risk Viewer.



These headers describe the sections of the page for that theme. Read through it all or click on a header to skip ahead.

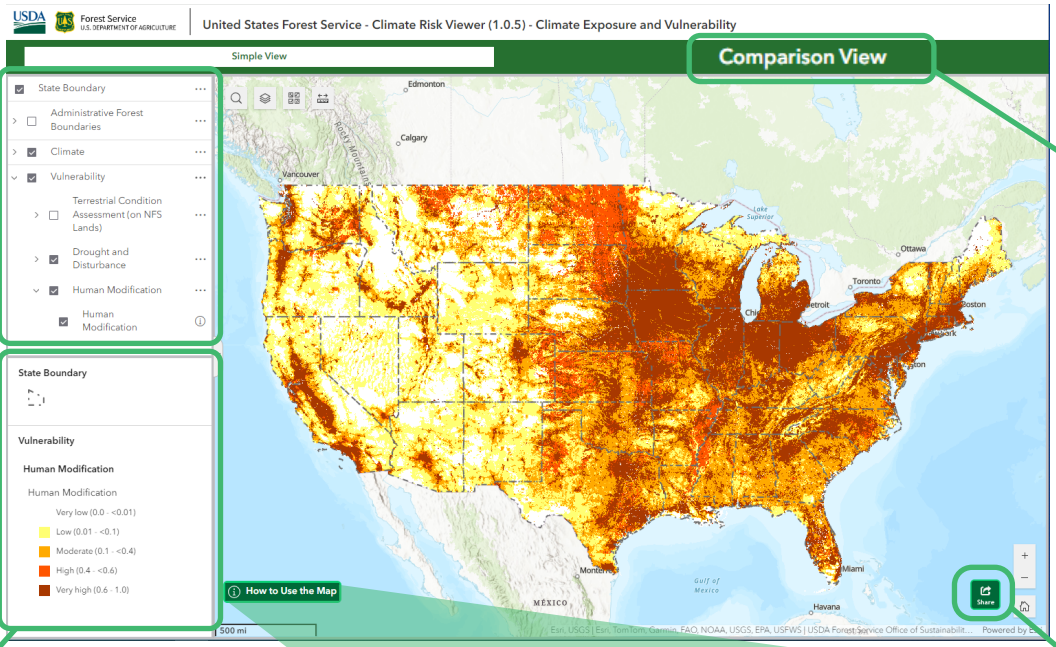


The **Explore the Data** section is an interactive map.

Explore data for each theme:

The checkable boxes in **the table of contents** draw layers on the map.

When a layer is visible on the map, it shows up in the **legend**.



Toggle to **Comparison View** to see two maps at once.

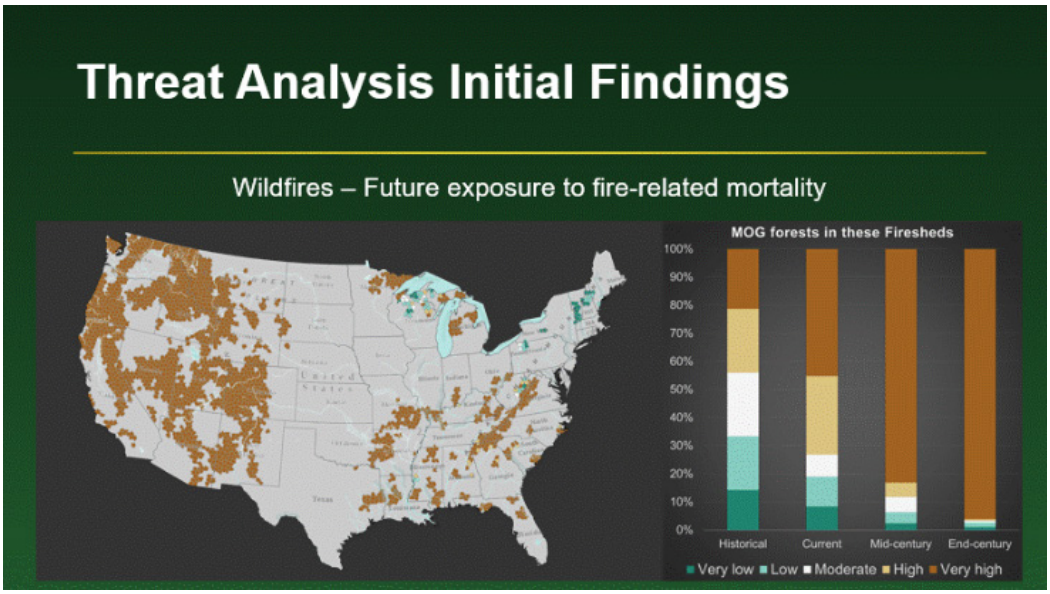
Share your custom map. This button preserves your selected layers and the current map extent so you can share exactly what you are looking at with anyone.

For all instructions, click this button on the map:

How to Use the Map

Find data with ease:

- Simply access all datasets.
- Overlay map layers or see them side by side.
- Create a custom map view to share.



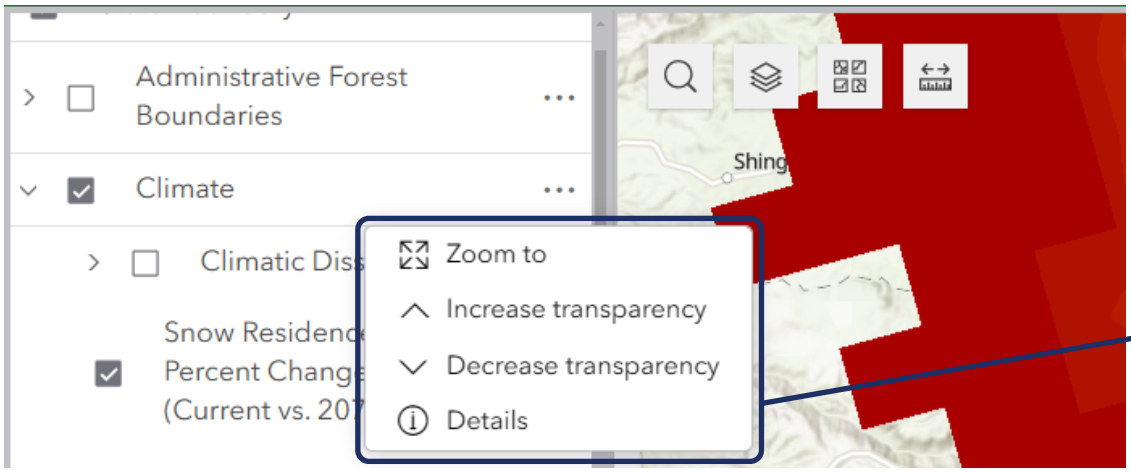
A key finding of the threat analysis, showcased in this image, is that by mid-century, more than half of the firesheds containing mature and old-growth forests will have very high exposure to fire-related mortality.

Ready to use the data for decision making?

Use the data catalog to learn about the datasets, such as where to find and download the data.

Try this!

- Open the "Climate Exposure and Vulnerability" theme.
- Scroll down or skip to Explore the Data section.
- Expand the Vulnerability section in the table of contents and check the box on "Terrestrial Condition Scores" to turn on the layer.
- Zoom to northern California and note that the legend describes that the red areas are "Very Poor."
- Expand the Climate section by clicking on ">" and then "Snow Residence Time: Percent Change."
- Now it is possible to see which National Forest System lands with a "Very Poor" rating for "Terrestrial Condition" will also see a large reduction in snow residence time in the future.



Click the three dots on the "Climate" group name and then "Increase Transparency" to see both at once.

The Climate Risk Viewer provides the functionality to change the transparency of the map layers displayed.

Questions or comments?

Contact SM.FS.OSC_Inquiry@usda.gov.

Steamboat Creek in the Boulder Creek Wilderness on the Umpqua National Forest, OR. USDA Forest Service photo.