# Sierra Nevada Climate Change Vulnerability Assessment for Recreation and Infrastructure: Expert Elicitation Workshop

9:00 AM – 4:00 PM September 13, 2018 USFS Wildland Fire Training & Conference Center, Thirty Mile Room (N106)

> Virtual Connection Information Phone: (888) 844-9904; ac: 6194008#

Adobe Connect URL: <a href="https://usfs.adobeconnect.com/rlgd20792vpa/">https://usfs.adobeconnect.com/rlgd20792vpa/</a>

# **Meeting Objectives**

- 1. Review and discuss outcomes, timeline, and general approach to a vulnerability assessment for recreation and infrastructure targeting the 10 Sierra Nevada National Forests/Units.
- 2. Review and discuss the vulnerability assessment outline, plus potential sources of information (raw/synthesized data, plus anecdotal).
- 3. Discuss unit-specific drivers, stressors, and issues affecting recreation and infrastructure.

## Agenda

0900	Welcome and meeting objectives (Lara Buluç and Jason Ko)
0915	Introductions (AII)
0930	Project overview, key climate change effects in the Sierra Nevada, and examples from other assessments ( <i>Jessica Halofsky</i> )
1015	Infrastructure assessment: outline, data sources, and key issues (Gordon Keller)
1045	Break
1100	Recreation assessment: outline, data sources, and key issues (Pat Winter)
1130	Q&A and group discussion
1200	Lunch (on your own)
1330	Recreation and infrastructure break-outs (Facilitators: Gordon Keller & Pat Winter)
1515	Group report-outs and discussion
1545	Next steps (Lara Buluç, Jessica Halofsky & Jason Ko)
1600	Adjourn

#### Guiding Questions (to consider/vet locally in advance to prepare for the workshop)

#### <u>General</u>

- 1. What drivers and stressors impact the recreation/infrastructure programs on the target units?
- 2. What unit-specific considerations are not currently addressed in this broader framework?
- 3. What unit-specific (vs. agency/public-access) datasets are you aware of that may support development of this vulnerability assessment?
- 4. How can we design this product so it is most easily applied/integrated in unit-level priority work?
  - a. What maps would be useful to you?
  - b. What FS applications would this product be **most** useful for (e.g., forest plan revision, travel management, climate change and transportation resilience analyses, FERC relicensing)?

## **Recreation**

- 1. Should the focal set of recreation activities for assessment be determined based on level of use, unique niche, economic contribution, those that draw underrepresented populations, or some combination?
- 2. What transition of iconic spaces/assets has already been observed, and how has this affected recreation provision? Has the unique niche shifted already, and if so where and how has the FS/your agency or organization responded? What is the longer term believed outlook based on climate change and ecosystem dynamics?
- 3. Over the past 5 years (or 10) what recreation sites have closed owing to effects related to climate change (fire, flooding, felled trees, hazard trees, landslides post fire then rain etc.)?
- 4. To what degree are elevated communication tactics and strategies needed associated with visitor and community interactions associated with climate change impacts? For example, visitor safety may be of increased concern, yet we don't have a 'no rescue' wilderness scenario, or a residential program for community-based defense against fire.
- 5. How will FS and our partners respond to climate change impacts on recreation (e.g., overcrowding as a result of more summer activities, less water sources for water activities, possible changes in opportunities due to vegetation or landscape changes changes in canopy cover, etc)?
- 6. Does this impact certain groups more than others? What role does development adjacent to the forest boundary play in managing site impacts/closures/quality?

#### Infrastructure

- 1. What do you see as the biggest issue facing your forest regarding infrastructure impacts from climate change?
- 2. What INFRA or WIT data do you have available for your forest infrastructure?
- 3. What information would you like to see that would help you the most regarding potential impacts to your forest infrastructure from climate change?
- 4. Are there specific GIS correlations you would like to see between roads, trails, streams, fire areas, landslides, etc?