# BACKGROUND

Giant sequoias (*Sequoiadendron giganteum*) are an iconic feature of Sierra Nevadan forests and one of the largest living things on earth. Sequoias have featured prominently in the development of the environmental movement with John Muir writing about them in an awestruck [manner](http://www.erraticimpact.com/~american/html/muir_quotes.htm): “Do behold the King in his glory, King Sequoia. Behold! Behold! Seems all I can say.” Giant sequoias are found from Sequoia National Forest to Tahoe National forest on public and private lands (Figure 1 ). Old growth sequoia groves were threatened for years by over harvest but more recently are threatened by lack of fire and understory thinning, particularly for seedling recruitment but also creating ladder fire fuels and wildfire risk to existing groves.

Staff from various agencies and non-profits have met recently to discuss ways their organizations can collaborate to improve the management of sequoias particularly in the face of climate change. Generally speaking, better exchange and access to research data, exchange of best management practices and coordination among the participating groups were identified as key needs. Eventually, collaboration with local communities to increase support of management practices and connect locals with the forests and groves will be a sought after objective.  The overarching group goal and associated objectives for the plan follow along with some suggestions for key next steps to implement this vision.

Figure 1: Historic range of giant sequoia groves (red).

# Purpose

The group will serve a dual purpose:

1. Serve as a forum for sharing information and discussing ideas.
2. Provide an inter-agency framework for regional conservation of giant sequoia

Key questions the group will ask are

1. Where on the landscape are giant sequoia most/least vulnerable to climate change and other agents of change?
2. What strategies can be used to resist change and promote resilience to change in the shorter-term?
3. What strategies can be used to facilitate ecological transition to changing environment in the long-term? Living seed bank
4. Where and how should the strategies be applied on the landscape?
5. How should we monitor giant sequoia?
6. Are there areas where we should be thinking about establishing new groves (assisted migration)?
7. What on-the-ground climate adaptation and restoration strategies can be implemented to allow giant sequoias to persist in the Sierra Nevada ecoregion?

The giant sequoia group, via agency, nonprofit and community participation and development of the workplan contained herein will seek to influence upcoming forest plan revisions, the California Landscape Conservation Cooperative, resource agency climate adaptation plan, forest plan revisions, National Park Service resource stewardship strategy.

# GOALS AND OBJECTIVES

The general goal of the work group is to improve management, science and communication opportunities assuming this will lead to improved management of existing and future groves of giant sequoia.

### Goal: Improve transboundary management, science and communication opportunities throughout the range of the giant sequoia.

#### The current group of partners for the giant sequoia work group includes: Forest Service, Bureau of Land Management, National Park Service, California State Parks, US Geological Survey, Sierra Pacific Industries, Save the Redwoods League and Southern Sierra Partnership and/or the Southern Sierra Conservation Cooperative. Others will be asked to join over time especially additional private landowners. The goal is supported by the following specific time-bound objectives

#### Objective 1: Create a giant sequoia climate adaptation strategy by 2015.

The National Forest Foundation will work with multiple partners to create practices and options for land managers so that existing groves can be more resilient to climate change through a transboundary climate adaptation strategy. The strategy will inform planners, managers and scientists alike with recommendations for species adaptation to climate change.

#### Objective 2: Assist in implementation of the giant sequoia monitoring plan with partners, agencies and landowners particularly through citizen science.

USGS is creating a giant sequoia long-term monitoring plan scalable by budget. To contribute to data collection, we and partners will train a pilot group of 5 citizen scientists to conduct giant sequoia monitoring throughout the species range.

#### Objective 3: Establish a shared database of all information relative to ecology, management and science of giant sequoias by 2014.

Improving access to data and information on the giant sequoia will benefit management and science of giant sequoia groves across California. The Conservation Biology Institute has offered to manage information through Data Basin a share online database.

#### Objective 4: Develop seed funding and in-kind costs to support giant sequoia coordination.

Start-up funding for giant sequoia monitoring and coordination will be crucial for long-term sustainability of this program as well as building local capacity through existing organizations to lead the effort from the outset.