



# PROGRESS REPORT 2015/16



**ACCORDING TO THE U.S. FOREST SERVICE, "ONLY AN ENVIRONMENTAL RESTORATION PROGRAM OF UNPRECEDENTED SCALE CAN ALTER THE DIRECTION OF CURRENT TRENDS."**

*Pacific Southwest Region, Ecological Restoration Leadership Intent, 2011*

# INITIAL STEPS TAKEN TOWARDS RESTORING FORESTS AND WATERSHEDS IN OUR FIRST YEAR...

- **The Sierra-Cascade Region was recognized as a critically important landscape:** The Sierra-Cascade Region was recognized as a flagship landscape under President Obama's Resilient Lands and Waters Initiative, and the region was designated as the California Headwaters Partnership (CHP). Within the CHP, federal agencies will showcase conservation and restoration efforts that make the Region more resilient to a changing climate. - *June 2015*
- **A Commitment to Restoring Sierra Nevada Forests and Watersheds was made by state and federal leaders:** A Memorandum of Understanding between the California Natural Resources Agency and the U.S. Forest Service was signed, committing to ongoing support of the California Headwaters Partnership and the Sierra Nevada Watershed Improvement Program. - *August 2015*
- **A Sierra Nevada community affected by severe wildfire was selected for funding under the National Disaster Resilience Competition:** In January 2016 the U.S. Department of Housing and Urban Development announced that the State of California would receive over \$70 million in funding to pilot its Community and Watershed Resilience Program in Tuolumne County. The Watershed Resilience Program will focus on supporting forest and watershed health, developing a bioenergy and wood products facility, and a community resilience center. - *January 2016*
- **A pledge to work across land ownerships was made:** In order to encourage restoration at a larger landscape scale, the U.S. Forest Service and the California Natural Resources Agency signed a Good Neighbor Authority master agreement, facilitating expanded federal-state partnerships to increase and streamline vital restoration work across all lands. - *February 2016*
- **State, federal, and non-governmental partners agreed to expand the use of fire as a restoration tool across all lands in need of restoration:** Several Federal and State agency officials, along with conservation and community fire protection groups, signed a Memorandum of Understanding to promote the careful and expanded use of fire as a restoration tool. A prescribed fire program will lower the likelihood of large, uncontrollable fires by reducing the amount of fuel available to burn and will limit pollution from larger wildfire events. - *February 2016*

## PROGRESS HAS BEEN MADE, BUT MANY CHALLENGES STILL REMAIN...

### FORESTS ARE DYING AT UNPRECEDENTED RATES

**Aerial surveys in 2015 found that statewide, 29 million trees had died due to drought, insects, and disease. Eighty percent of those trees are in the Sierra Nevada.**

- New research estimates that, due to drought, up to 58 million large trees in California experienced severe water loss between 2011 and today. If drought reoccurs in the near future, our already weakened forests may experience even more significant changes.

### RESTORATION ACTIVITIES ARE STILL WOEFULLY INADEQUATE

- Current restoration efforts in the Sierra are still grossly out of pace with what is needed. In 2011, the U.S. Forest Service Regional

Forester estimated that 500,000 acres need to be restored annually to improve forest health and watershed reliability. That's two to three times greater than current efforts.

### LARGE, DAMAGING WILDFIRES ARE A MAJOR THREAT

- The 2015 Rough Fire burned over 150,000 acres in the southern Sierra. Beetle-killed trees caused extreme fire behavior, with flames reaching 130 feet high in some areas.

**Extreme weather conditions, steep terrain, and a historic four-year drought caused the 2015 Butte Fire in the Mokelumne and Calaveras River Watersheds to experience unprecedented fire conditions and growth. More than 50,000 acres burned in less than 48 hours. Lives were lost, and nearly 1,000 structures were destroyed.**

- The record for acres burned in a decade on the western slope of the Sierra will likely be set this year, with three fire seasons still to go.

### WILDFIRE EMISSIONS CONTINUE TO INCREASE

**Fresno County's Department of Public Health reported a 411 percent increase in emergency room visits for respiratory issues over a 72-hour period while the Rough Fire was burning.**

- NASA recorded more methane for every molecule of carbon dioxide emitted by wildfires in 2015 than by fires in previous years.

### WATER SUPPLY SYSTEMS ARE STILL AT RISK

- The U.S. Forest Service estimated that in 2015, more than 300,000 tons of topsoil were poised to erode into the Rubicon River from the King Fire.
- Pine Flat Reservoir, downstream from the Rough Fire burn area, remains vulnerable to storms.

During a 10-year storm, upwards of 2,000 acre feet of sediment could get deposited in to Pine Flat Lake. That sediment would displace water that could be used by 2,000 families for a year.

### FAILURE IS NOT AN OPTION

Sierra Nevada forests and watersheds are at a critical point. Failure to understand the urgency of the situation in the Sierra Nevada will have devastating impacts on California's economy, air quality, and water supply.

# OPPORTUNITIES AND NEXT STEPS

The Sierra Nevada Watershed Improvement Program (WIP) is designed to be a long-term solution with the goal of increasing the pace and scale of restoration, but there are steps that can be taken now:

## ENGAGE WITH THE STATE'S TREE MORTALITY TASK FORCE

Governor Brown issued an Executive Order to address the dramatic rise in tree mortality statewide, and created the Tree Mortality Task Force to carry out the actions needed to restore our forests and watersheds to a healthier state. These actions are complementary to the goals of the WIP and encourage an alignment of efforts at the state level.

## ADDRESS POLICY TO INCREASE FUNDING

More research is supporting the use of greenhouse gas reduction funds to restore forest health, avoid large, high-severity wildfires, and stabilize carbon storage in the Sierra. The state's Forest Climate Action Team will release a framework document in 2016 to guide the use of these funds for forest restoration activities, and will provide an opportunity for interested parties to contribute comments and support.

## IDENTIFY RESTORATION NEEDS

Information on critical issues and restoration opportunities is being compiled at the watershed level to establish baseline knowledge of the on-the-ground conditions and restoration needs across the Sierra Nevada Region. These assessments will help identify areas and opportunities for immediate on-the-ground work, and provide a basis for exploring new models for accomplishing restoration work more effectively.

## IMPLEMENT RESTORATION PROJECTS

We will explore opportunities with our partners to develop large landscape-scale pilot projects in the Sierra Nevada Region that will result in improved forest and watershed health and resilience.

## DEVELOP A COLLECTIVE MESSAGE

Many voices carrying the same message will help to increase support for forest and watershed restoration in the Sierra Nevada. Help us increase the effectiveness of the WIP by carrying three key messages:

- A healthy Sierra Nevada Region is critical to the future of California, but today many Sierra forests and watersheds are in need of restoration.
- The Sierra Nevada Watershed Improvement Program is a coordinated, integrated, collaborative program that will restore the health of California's primary watershed through increased investment and needed policy changes.
- Restoring Sierra forests and watersheds to a healthier, more resilient state will improve the quality and quantity of water throughout the year; improve habitat for wildlife, fish, and plant species; reduce the risk of large, damaging wildfires; improve local socio-economic conditions and public safety; preserve working landscapes; protect air quality; reduce greenhouse gas emissions; and stabilize carbon storage.

**The Sierra Nevada Watershed Improvement Program is being led by the state's Sierra Nevada Conservancy in partnership with the U.S. Forest Service, and has been endorsed by a diverse group of partners. To learn more about the Program or the partners involved, visit:**

**[WWW.RESTORETHESIERRA.ORG](http://WWW.RESTORETHESIERRA.ORG)**