

# Regional Economic Contributions of the Four Forest Restoration Initiative

## Executive Summary

A leading wildfire management strategy is restoring forests by thinning trees and conducting prescribed burns, especially in wildland urban interfaces (WUI), to allow fire to play its more natural role and to lessen wildfire severity. The Four Forest Restoration Initiative (4FRI) in Arizona is an example of a large USFS forest restoration approach in its early stages. Nationally, 4FRI is part of the Collaborative Forest Landscape Regional Program (CFLRP) and is the largest collaborative restoration project in USFS history. With such a large landscape approach, 4FRI has the potential to positively affect rural economies by facilitating employment and income generation with logging, wood utilization, and other restoration activities. To understand the extent of regional employment, income, and output, and to establish a monitoring baseline, we conducted a regional economic contribution analysis of 4FRI activities for Fiscal Year 2017.

The regional economic contribution zone was confined to five northern Arizona counties: Apache, Coconino, Gila, Greenlee, and Navajo. To determine regional economic contributions of 4FRI-related activities, we collected data on expenditures and employment in Fiscal Year 2017 (October 2016—September 2017) in three areas: thinning and wood utilization, other restoration activities such as watershed restoration and road decommissioning, and regional USFS activities that include National Environmental Policy Act (NEPA) planning, site preparation, and prescribed fire. A survey of all primary thinning contractors was conducted, and contract and employment data were collected from the USFS for other restoration activities.

We found that logging and wood utilization associated with 4FRI spur numerous good-paying jobs in the region. With over 12,000 acres mechanically thinned, operators removed about 400,000 green tons of sawlogs and biomass for processing. Combined with the important year-round USFS jobs and the other restoration contractors, the 4FRI has a large economic footprint to accompany its ecological footprint. Table ES1 illustrates the direct full-time equivalent (FTE) employment in the region associated with 4FRI activities:

**Table ES1: Direct Regional Employment from 4FRI Activities (FY 2017)**

4FRI Restoration Activity	FTE Annual Employment
<i>Thinning and Wood Utilization</i>	222
<i>Other Contracted Restoration</i>	30
<i>USFS In-House Restoration</i>	258
<b><i>Total</i></b>	<b>510</b>

In total, including multiplier effects, we found that FY 2017 4FRI activities generated:

- almost 1,000 full and part-time jobs and more than 900 FTE jobs in the region;
- approximately \$150 million in regional output;
- \$50 million in regional labor income; and
- impacted over 140 different industry sectors in the region.

Increasing overall restoration accomplishments and increasing regional wood utilization infrastructure are two methods for generating greater regional economic contributions. Despite the impressive regional economic contributions, restoration accomplishments have seen limited growth since the inception of the 4FRI and remain well below original project objectives and forecasts. With both the social license and agency support generally in place, the main barrier to ramping up 4FRI mechanical thinning accomplishments is the lack of profitability in thinning and processing small diameter ponderosa pine.

In order to achieve the ambitious goals of 4FRI, all stakeholders and the USFS must acknowledge the need for supplemental funding for southwestern forest restoration. Ponderosa pine forest restoration provides numerous ecosystem services and benefits to the state, counties, municipalities and to the public, and is vastly different than the traditional economic model of timber production. Because of this, a collaborative restoration effort requires an innovative collaborative funding effort, where the beneficiaries of the services help fund the restoration efforts and work with the USFS to collaboratively develop a productive local wood products industry.



Credit: Anne Mottek-Lucas