



Forest Notes, New Mexico

Restoring the Forest. Growing Jobs.

Adapting to Effects

How the Forest Service adjusted a restoration plan for the long-term health of a forest

Re-Marking Trees in the Zuni Mountain CFLRP

An important example of adapting to effects on the ZM CFRLP is a tree “re-mark” on a recent forest restoration treatment. This was made possible through a Stewardship Agreement between the National Wild Turkey Federation (NWTF) and the Cibola National Forest, which allows for flexibility during forest treatments as compared to Timber Sale Contracts. In this example, the Cibola was willing to invest the time and expense to improve a 600-acre marked treatment area by having tree-markers come back and make changes to their work so the treatment would better match the restoration objectives.



Mechanically thinned mixed age ponderosa pine stand with pinon pine and juniper component. The two photos on this page were part of the permanent plot array established in 2015. A subset of the vegetation plot data, the permanent plots are designed to be revisited over time for direct comparison.

What is the Zuni Mountain CFLRP?

The Zuni Mountain Collaborative Forest Landscape Restoration Project (ZM CFLRP) is part of a nationwide program to implement science-based forest restoration at the landscape scale. At the same time, the ZM CFLRP is expanding and stabilizing a local wood manufacturing and forest harvesting businesses, creating jobs, and benefiting local communities and economies.

At the same time, the Cibola National Forest and the Forest Stewards Guild are monitoring ecological changes to the forest, as well as socioeconomic changes in the local community. This monitoring will help to inform planning and management decisions in the future.



Mechanically thinned ponderosa pine stand in the Bluewater project area showing mature pine retained.

Changing Course

In one treatment area, the tree markers thought they had met the Forest Service marking guidelines. However, once the trees began to be harvested, it became clear that tree-marking adjustments needed to be made to better meet the prescription guidelines. The Cibola National Forest asked tree markers to modify the marking to better meet the desired conditions for the future stand. For the Cibola National Forest to take the time and expense to re-mark the stand is of great benefit since it determines the future composition and structure of the forest, how it will respond to wildfire, the aesthetics of the viewshed, the diversity and quantity of wildlife habitat, and how healthy and resilient the future forest and watershed will be.

Focus on Long-Term Health

Several modifications were needed for the re-mark. Many openings were too large, meaning more trees needed to be marked to leave. Throughout the forest, they also left more trees favored by wildlife: trees that are larger and have poor form, are hollow, have large dead limbs or tops, have multiple forks, or have broken stems.

The other important modification was to leave larger “groups” of trees. Many small islands or “clumps” of trees 1/10th to ¼ acre in size were marked to leave that were evenly spaced across the landscape making the forest look very cookie-cutter and sparse. Many of these small “clumps” needed to be expanded to “groups” of trees of ½ to 2 acres. The larger groups are better for wildlife, increase stand structure, and increase diversity of tree age and size. In addition, the groups create more interlocking tree branches that provide wildlife, such as Abert’s squirrel, more cover to travel safely from tree to tree and to hide their nests, preventing northern goshawks from over-hunting them. Squirrels help regenerate trees by burying seeds, often far from the original tree.

Kudos to the Cibola National Forest for taking the time, expense, and care to adjust the tree-marking since it is so significant in creating a healthier, more diverse forest now and well into the future.



Project Details

The Cibola National Forest has a Stewardship Agreement with the National Wild Turkey Federation (NWTf) to implement the mechanical thinning portion of the project. NWTf contracts with Mt. Taylor Manufacturing, who then subcontracts to BRL Logging and WW Logging to do the harvesting. Once an area is selected, the forest silviculturist develops a site specific restoration prescriptions to meet the desired conditions of the future forest. Next, tree-markers are called in to mark trees as “leave” by applying colored tree-marking paint at eye level following the silviculturalists prescription.



For More Information

Visit the Forest Stewards Guild’s website:
forestguild.org/cibola-cflrp

Text by Rachel Wood, of Rachel Wood Consulting
Layout by Jordan Stone