

How to Help Create a Healthy Forest

Within the past forty years land managers, scientists, and conservationists have greatly altered their views on forest health management. In Southern California, management objectives on much of the National Forest land included suppressing wildfires and protecting trees from being cut down. Managers are now learning more about the importance of natural disturbances (such as fire and insect attacks). Natural disturbances provide a system of checks and balances to ecosystems, helping keep species in balance with each other.

By preventing many of the small disturbances needed to open up and maintain the mosaic of healthy forest, land managers have contributed to the overpopulation of trees across many of Southern California's mountain communities. Now many of these forest stands are so overstocked that strong measures must be taken to reverse the unintentional damage done to the forest. For these forest types a healthy forest would typically have between 90 and 150 trees per acre on it while much of the forest has 400-600 trees per acre. All land managers, including private property owners, must thin out over-dense forested property, a task that traditionally fire and other natural disturbances, such as insect outbreaks, would do for them.

How did our forests become so unhealthy? Before land managers began suppressing wildfires in these forests, these smaller disturbances burned light fuels on the ground, leaving most of the larger trees to continue growing. In the absence of these periodic cleansing fires, too many small trees have grown close together. Today, with all of this excess fuel present the fires are difficult to control, often burning so hot that the larger trees are killed, soil is scorched, and wildlife habitats are destroyed.

Can the forest ecosystem be saved? It is impossible to identify all of the variables needed to improve forest health. When a forest is "sick", the ability of that forest to withstand natural disturbances and rebound following disturbance is impaired. The best way to treat forest health is similar to the best way to treat our own health, by being proactive. Proactive intervention aids the natural ability of the forest to positively respond to fire, insect and

drought disturbances in Southern California. This is done through maintaining a thin and green forest. Thinning the forest also helps the trees become more resistant and resilient to fire and mimics fire conditions that historically occurred in the area.

How does land management help? Forest fuels treatment programs help improve forest health in two important ways. Fuels reduction changes the behavior of fires so that it acts as it did before human fire suppression. By altering the distribution of fuels to a more natural arrangement, fires that move through stay low and burn mildly. The natural cycle of disturbance is restored, improving the resistance of the forest while reducing the severity of future disturbances.

Thinning also reduces the competition between trees. Without fire to maintain more open conditions, trees that grow in unnaturally high densities often become stressed as a result. During disturbances such as droughts, beetle attacks, and fires these stressed trees are not able to withstand the challenges. Many die or are unable to recover and weakened trees are even more susceptible to future disturbance. Thinning intervenes early in this chain of events, proactively treating the causes of over-stressed trees rather than treating the symptoms. Maintaining the health of our forests takes the strength, willingness, and teamwork of an entire community.

How can I thin my trees? There is a new program available in the San Bernardino National Forest to help landowners thin their small-diameter trees, prune larger trees and remove brush. Forest Care provides a free consultation with a professional forester and reimburses landowners for up to 75% of the cost of thinning, pruning and brush removal. Properties less than 5 acres in size and with a high tree density (over 200 trees per acre) may be eligible for Forest Care. For more information, or to find out if you qualify, contact Forest Care at 1-888-883-THIN or www.sbnfa.org. All property owners in the San Bernardino National Forest are land managers. The decisions made by every individual impacts the health of our forest ecosystem. Responsible forest management is important for the benefit of the entire mountain community. This is one forest and we are all responsible for protecting it.