Healthy Trails Need Healthy Forests

By Thomas M. Bonnicksen, Ph.D.

A vibrant forest can make trail running exhilarating. But exhilaration can turn to disappointment when once-lush trails run through dead trees or charred canyons.

When forests aren't healthy, they can become depressing and dangerous places – not only for people who live and work among the trees, but for those who recreate outdoors, too. Think about it. You're running through a dense backcountry forest and you see smoke. You don't know if a fire is heading toward you, but you know that wildfires can spread at 60 miles per hour or more. You freeze. You're in trouble.


Duncan Canyon after the Star Fire

Many Western forests face wildfire threats. Western States runners can witness destruction first-hand – the Duncan Canyon part of the trail finally will be accessible this June almost five years after fire ravaged the area.

The canyon's breath-taking scenery, however, is a distant memory.

California has more than 8 millions acres at risk of high-intensity wildfire. The practice of putting out all fires for 100 years and allowing fuels to accumulate rather than burn-off in low-intensity fires has created a man-made danger. There's nothing natural about a 200-foot wall of flame feasting on 10 times more trees than historically stood in Sierra Nevada forests.


Running in a healthy Red Fir Forest

Forests statewide and throughout the West have suffered. Some Southwest forests are 30 times more crowded than historically normal. Many Southern California forests are about 10 times more crowded than natural. Forests in the Lake Tahoe Basin are four times denser than normal and have about 33 percent dead trees due to bark beetle infestation. One

fire there could not only change the forests forever, but muddy the Lake like never before.

It's not just water quality and trees that are lost when forests burn. Air quality and wildlife habitat suffer, and billions of dollars go up in smoke, too. Taxpayers spent $5.8 billion dollars to fight fires on federal lands between 2000 and 2004. Californians pay 21 times more to fight wildfires today than they did in 1980.

Wildfires are getting larger, deadlier, and costlier, and wreaking havoc on America's trails – fire suppression expenses drained the U.S. Forest Service of nearly $7 million in recreation funds in 2003 alone.

Western States runners have missed Duncan Canyon the past four years, but at least they've been able to run. Fires and dangerous forest conditions have recently canceled several trail runs throughout California and the West, including the Angeles Crest 100, San Diego 100, Leona Divide 50 and Tahoe Rim 50.

The 100-mile Western States Trail from Squaw Valley to Auburn cuts through magnificent forests and showcases how forests change as elevations drop. It also demonstrates how unhealthy our forests have become.

The trail crests a spectacular mountain pass above Lake Tahoe and descends through sparse alpine forests and meadows. Then it passes through lodgepole pine, enters red fir forests, then mixed-conifer and ponderosa pine forests before finally traversing oak woodlands. Each forest offers glimpses of beauty and degraded health.

The trail runs through several overcrowded forests facing high fire risks. Some forestland surrounding the trail have already burned – the 16,600-acre Star Fire left its mark on Duncan Canyon and elsewhere. An old growth forest in the canyon was mostly consumed.

Historically, Native Americans and lightning started low-intensity fires that thinned forests and "cleaned" the forest floor. Diverse wildlife thrived, water flowed clean and abundant, and early explorers described forests open enough to gallop a horse through. With native peoples gone and fire suppressed for a century, many of those same forests are now not safe to run through.

We must address our forest health crisis if we want accessible recreational trails.

Fortunately, science can show us how to restore healthy forests and reduce the wildfire threat. The solution requires learning from history and planning a future.

History shows that fire is less destructive and that biodiversity thrived when a mosaic of forests of various densities, with trees of all ages and sizes covered the landscape. Science has developed such that forest management using tools including prescribed burns and precise mechanical harvesting can accelerate the return of safer, sustainable forests.

Planning the future means making some tough choices today. With an abundance of forest fuels, it makes sense that removing some trees is part of the plan. Making productive use of the trees removed – to provide clean energy or meet our increasing demand for wood products – also seems appropriate, and can help fund forest restoration. Forest restoration is far too costly a venture for taxpayers to finance alone.


Trailside View of Devil's Thumb

But our forests need to be restored if future generations are to enjoy the majestic landscapes we expect for ourselves. That means actively caring for the forest resources with which we have been entrusted.

Increasingly, the alternative for trail runners may be running through soot and barren landscapes. We must act quickly, before we lose more of the trails that outdoor enthusiasts and distance runners have come to love.

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