Opinion: It’s up to us to define the forest’s future

By Mark Schwartz

The Rim Fire is nearly contained and will quickly fade from public consciousness. However, the fire has left a scar on a part of the Sierra Nevada that many of us hold particularly dear. How do we move forward to restore this vital watershed, and what lessons do we learn for the future?

Mega-droughts during the past several thousands of years are associated with wildfire events far more extensive than anything we have seen over the past century. In the Sierra, the fall rains have started, and the process of healing has begun. The forests will return.

Regeneration is nature’s process. Driving through Yellowstone National Park, the consequences of the massive 1988 wildfire remain apparent on the landscape. It will take several more decades for those trees to recover. We should expect a similar slow recovery in the Rim Fire, but mostly because some of the high-intensity burn areas are very large and far from seed sources. Many of us will never see mature forests in parts of this landscape again.

As long as the ground is bare, risk of landslides on steep slopes will remain high. Forests soak up water, so stream flows will increase, escalating flood risk for the coming years. Recovery will take decades in severely burned areas. In contrast, low-severity burn areas may look much like normal within a couple of years as the small, herbaceous understory plants quickly recover.

There are species that specialize in young forests. We should look with enthusiasm for these recovering forests over the coming years with the knowledge that fire, on balance, is what

maintains biological diversity in the Sierra Nevada.

Through recent forest management practices, however, we have boxed ourselves into a future of increasing frequent and hot wildfires. Nevertheless, there is much we can do to reduce that risk and assist recovery of our forests and watersheds.

Our federal agencies have formed a Burned Area Emergency Response team, and more than 50 federal resource managers and scientists are evaluating what remediation measures are needed and how to prioritize them.

A critical question is: What kind of Sierran recovery are we aiming toward? Historically, deforested areas are replanted with the same species, using local seed sources. As climate changes, this might not be a successful strategy for ecosystem restoration. Further, federal budget cuts have resulted in great difficulty financing replanting on a broad scale. The agencies will need to be strategic about what and where to plant.

In Canada, foresters are planting more heat-tolerant mixtures of plant populations and species to build forests resilient to climate change. How far should our public agencies go in modifying the forest composition to create ecosystems ready for changing climates?

If we look at projected climates, there are places ravaged by fire where forests will be naturally replaced by chaparral and grasslands. Favoring management to prioritize historical conditions and wildlife values, or to minimize future fire risk is a social choice. Our agencies are making these decisions now.

Understanding the issues and considering what we choose our Sierra Nevada ecosystems to be will increasingly be part of the public debate.

This year has witnessed U.S. Forest Service and National Park

Service funds originally targeted for other critical resource management activities swept up to pay for wildfire control. CalFire, which spent less than $20 million per year in the 1980s managing wildfire, now spends upward of $150 million per year. The Rim Fire alone cost more than $120 million. More fuels and increasing ignitions will result in more large wildfires, and more cost, in the coming years.

The fire is over, but the fiery debate about what, how much and where to plant is now set to begin. The U.S. Forest Service provides an online public forum for the general debate about forest management.

Figuring out how to pay for wildfire control and ecosystem restoration along with all of the other wildlife and recreational values that we seek from our national forests should be a grave concern for us all.

No lives were lost in the Rim Fire, but $121 million was spent containing the 402 square miles that were burned, and roughly 115 square miles of forest has been devastated. The fire gained added notoriety because it threatened San Francisco’s water supply and charred thousands of acres in Yosemite National Park. And yet the Rim Fire is a blip.

The Sierra Nevada has experienced fire for thousands of years, and the ecosystem has adapted to it. The Rim Fire is but one of more than 5,600 California wildfires to date in 2013, which is turning out to be a non-exceptional year: Both 2007 and 2008 had roughly three times as many acres burned.

Our forest losses are also partly a function of our failure to reduce fire hazards on private property. The Rim Fire was sparked by a hunter, but fires get larger in wilderness because fire crews are forced into high-risk situations protecting people and buildings. The consequence is an exposed ecosystem, and a bigger fire. Those living in the watersheds burned will face increased landslide and flood risk as a

consequence of this fire. Those who depend on water in the Hetch Hetchy now bear an elevated risk to water supply. Human safety comes first, but we need to consider the cost of firefighting and how to share that cost among those who benefit from it.

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