# Adapting Forests to Wildfires in a Changing Climate

#### **Dr Susan Prichard**

School of Environmental and Forest Sciences University of Washington, Seattle E: sprich@uw.edu

Historically, controlled forest burning in western North America created a forest patchwork that limited the size and severity of wildfires. Over the last 200 years, however, fire suppression created large areas of dense tree stands. As droughts and temperatures increase due to climate change, these dense forests are now at increasing risk from extremely severe wildfires.

We need a proactive solution. Dr Susan Prichard from the University of Washington, Seattle, examined the scientific evidence to answer common questions about the effectiveness of various forest management techniques.

### Question 1: Can forest thinning and prescribed burning reduce wildfire risks?

Thinning, which involves removing some trees to reduce forest density, leaves tree material on the forest floor that can dry out, becoming fuel for wildfires. But used with prescribed burning – a type of fuel reduction treatment – thinning can be highly effective at restoring forest resilience and reducing the effects of wildfires in many forests.

### Question 2: Should management techniques focus only on forests that border urban areas?

Many forests in the interface where wild and urban areas meet are more difficult to treat than remote forests. Restoring forests outside of the interface zone can change fire behaviour enough to reduce the intensity of wildfires arriving at communities.

## Question 3: Will fuel reduction treatments prevent future wildfires?

Using fuel reduction solely for fire prevention can lead to a fire deficit in forests. Adaptive fuel treatments should restore the ecological role of fire in maintaining a forest patchwork, reducing the intensity of wildfires and the need for aggressive fire suppression when the next wildfire happens. Question 4: After 200 years of fire suppression and forest mismanagement, can we ever catch up and restore fire adaptation and resilience to western North American forests?

The current pace and scale of forest treatments is woefully inadequate. However, Dr Prichard is confident that it is not too late. Overwhelming evidence indicates that more thinning and prescribed burns can restore forest resilience and improve climate adaptation in forested landscapes.

This video is based on the paper 'Adapting western North American forests to climate change and wildfires: 10 common questions' published in Ecological Applications. doi. org/10.1002/eap.2433