

Agenda Item No.:	3
Work Plan Title:	Emerging and Overarching Issues
Presentation Title:	Large Wildfire Suitability in response to climate change
Date of Presentation:	January 7, 2015
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SUMMARY

The purpose of this agenda item is to provide an update on work staff has completed for the Climate Change issue in the Emerging and Overarching Issues work plan. Staff will present information from a joint research project conducted in cooperation with Oregon State University and the U.S. Forest Service. Climate and large wildfire occurrence are related. Climate variables for temperature and precipitation contributed about 60% to a model that explained large wildfire occurrence, allowing us to study the potential effect climate change might have on the geographic distribution of wildfires.

CONTEXT AND BACKGROUND

Oregon's forests are strongly influenced by climate and topography. Modeled predictions of changes in climate from increasing concentration of atmospheric carbon dioxide present additional risks to sustainability of forest ecosystems. Of particular interest to the Board and the Department is how climate change will influence the behavior of large wildfires.

Using the locations of large wildfires from 1971 to 2000 and a set of five predictor variables that included summer temperature and precipitation, the research team generated a Maxent model for estimating the relative probability of a large wildfire across the forests of Oregon and Washington. The model was then projected to the year 2100 using predictions of temperature and precipitation data derived from the radiative forcings associated with four emissions scenarios that integrate 33 global circulation models. This research provides the first estimates of how predicted changes in climate will affect large wildfire regimes in the Pacific Northwest mapped to an 800m resolution. Staff will present an overview of the methods and show preliminary results of the analysis organized by ecoregion and ownership.

RECOMMENDATION

This is an informational item.

ATTACHMENT

- (1) The Normal Fire Environment, Draft Presentation