

Wildfire Prevention, Preparedness, and Expenditure Review

2020 JLARC STUDY

JLARC directed its staff to review the Department of Natural Resources' wildfire prevention and preparedness activities, related expenditures, and how effectively these reduce wildfire impacts and costs.

DNR has a strategic, science-based approach to wildfire prevention & preparedness

DNR must assess and treat 1 million acres of forest land by 2033 (RCW 76.06.200).

DNR developed long-term wildfire and forest health plans. The planned activities are consistent with science and best practices.

Prevention & preparedness spending since FY 2018: \$70 million.

DNR is developing a forest health tracking system that is intended to link project maps, activities, funding, and costs.

PREVENTION

Reducing human-caused fires (e.g. public education, burn bans).

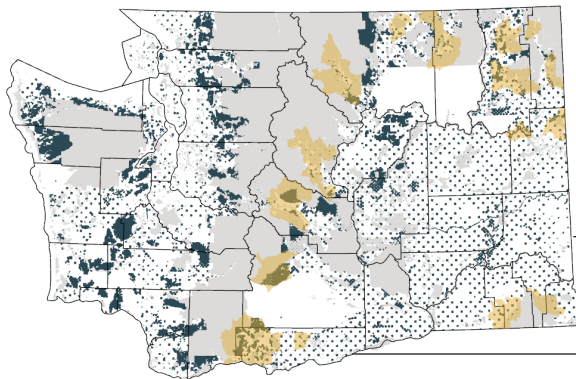
PREPAREDNESS

Improving forest health and helping communities adapt to wildfire (e.g. thinning, prescribed fire, creating defensible space).

DNR is one of many partners that must work together to achieve prevention and preparedness goals

PARTNERS INCLUDE:

- Federal agencies
- Private landowners
- Local governments
- Tribes
- Fire agencies
- Conservation districts
- Community groups



DNR identified **33 priority areas** to focus its forest health efforts.

It uses **agreements, collaboratives, and assistance programs** to coordinate across ownership boundaries.

Research suggests preparedness activities that reduce fuels can decrease fire intensity and severity

BEFORE fuel reduction

Surface and ladder fuels are present.

Tree Crowns

Ladder Fuel

Surface Fuel



Higher intensity fire

Fire spreads from forest surface through ladder fuels to tree crowns.



Higher severity fire

Fire spreads through tree crowns and forest is more damaged by fire.



AFTER fuel reduction

Surface and ladder fuels are reduced.

Tree Crowns

Surface Fuel



Lower intensity fire

Fire less likely to rise to tree crowns.



Lower severity fire

Forest is less damaged by fire.



Source: JLARC staff depiction based on diagrams created by the U.S. Forest Service.

Research models predict that preparedness activities may reduce suppression costs for individual fires

The relationship between preparedness and suppression is complex and it is challenging to summarize this into a simple cost savings equation.

Additional factors affect suppression costs, such as climate and weather, development in urban interface, and fire behavior.

The complete report is on the JLARC web site: www.leg.wa.gov/jlarc

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