



Proposed Final Report

Wildfire Suppression Funding and Costs

January 2018

Wildfire suppression costs are shared with other agencies, consistent with formal agreements.

Accurate & refined data collection is needed to improve information about costs and characteristics.

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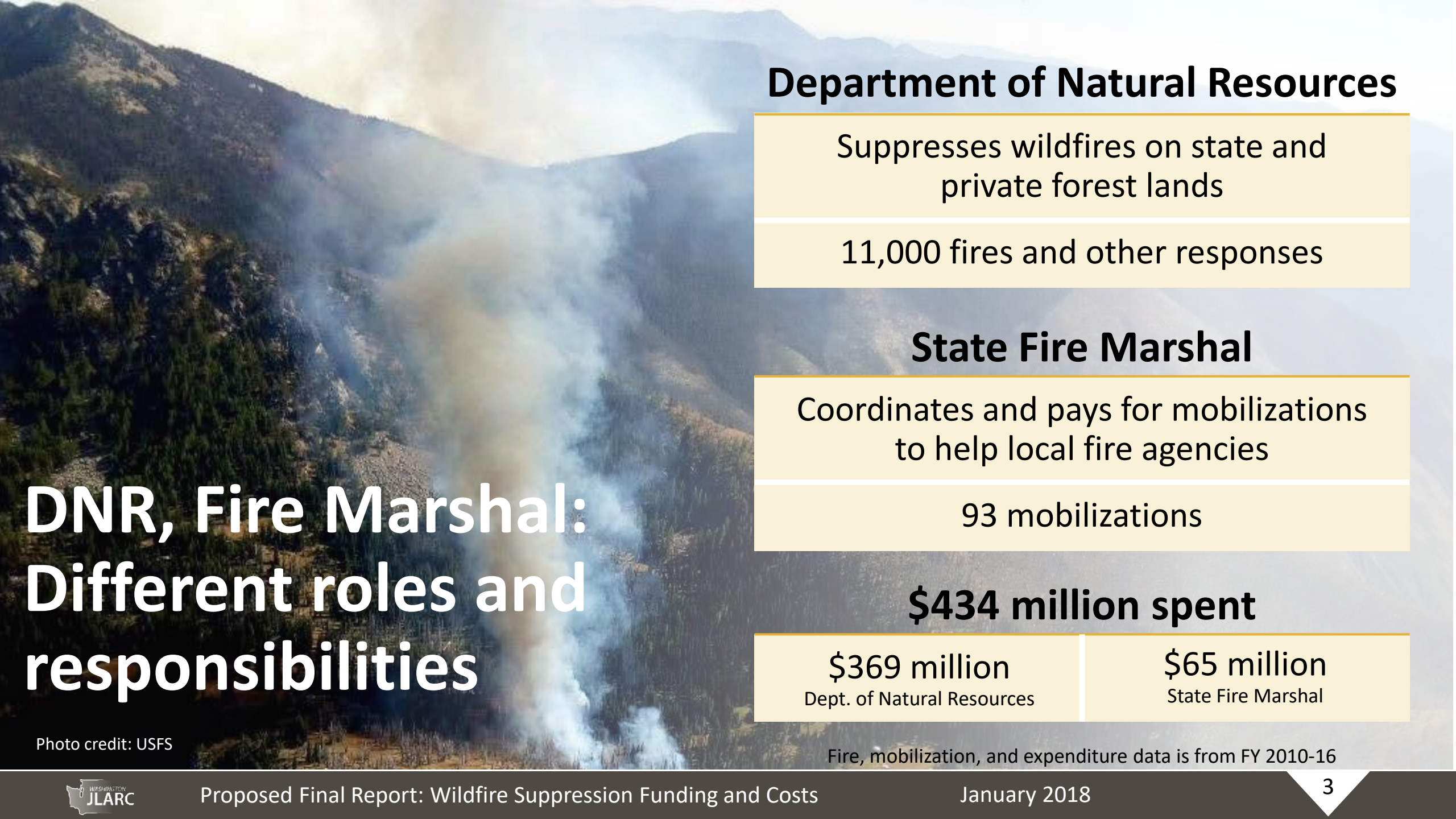
Three recommendations to improve DNR's information about costs and characteristics

DNR Concurs

*with each
recommendation*

OFM had
no comment

- 1** DNR should refine its collection of key data elements and seek input from the appropriate Legislative committees
- 2** DNR should improve the accuracy and reliability of the key data elements it collects
- 3** DNR should develop a systematic and verifiable way to identify the costs of individual fires



DNR, Fire Marshal: Different roles and responsibilities

Photo credit: USFS

Department of Natural Resources

Suppresses wildfires on state and private forest lands

11,000 fires and other responses

State Fire Marshal

Coordinates and pays for mobilizations to help local fire agencies

93 mobilizations

\$434 million spent

\$369 million
Dept. of Natural Resources

\$65 million
State Fire Marshal

Fire, mobilization, and expenditure data is from FY 2010-16



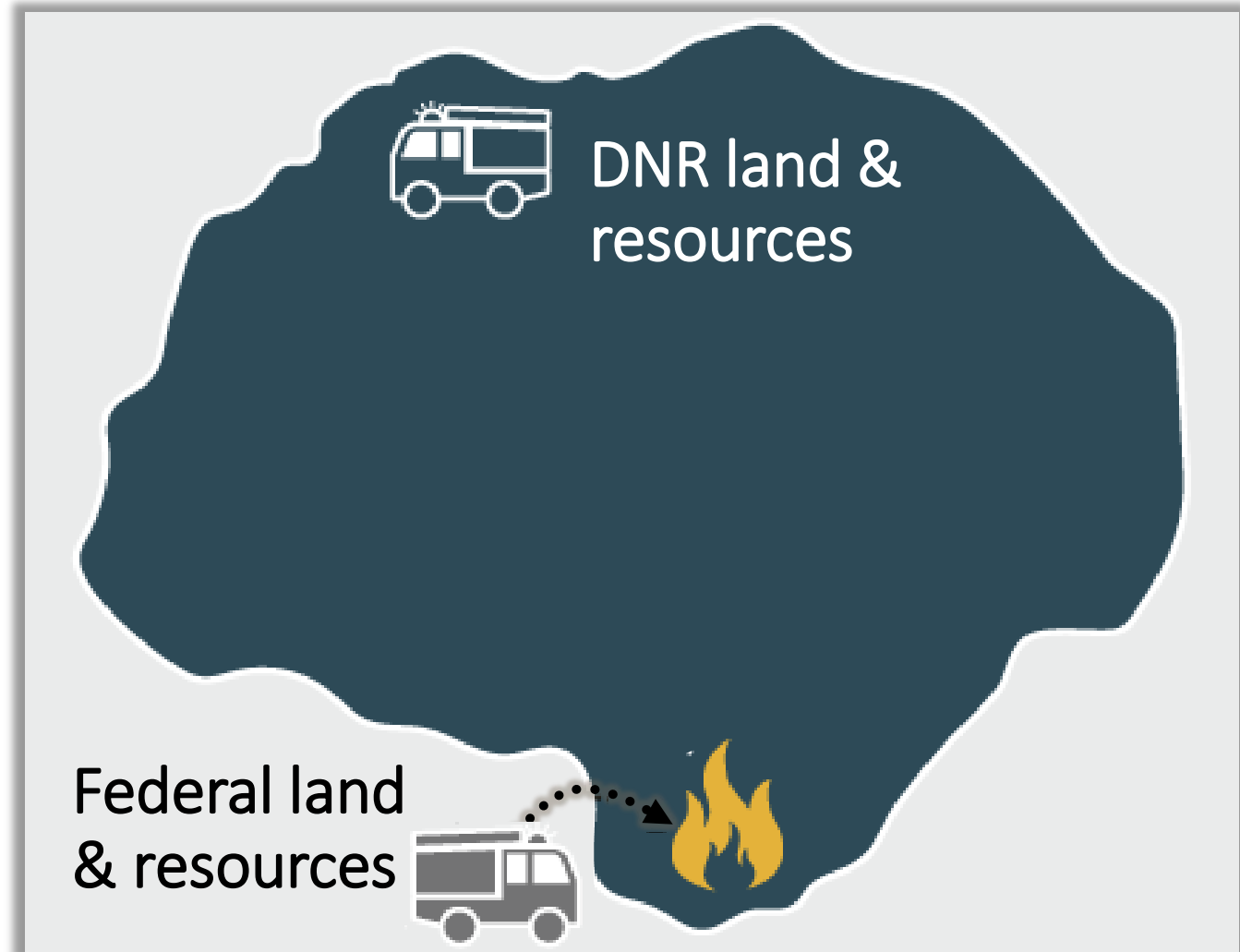
Photo credit: IMT #10

Sharing wildfire suppression costs

Conclusion: Wildfire suppression costs are shared with other agencies, consistent with formal agreements

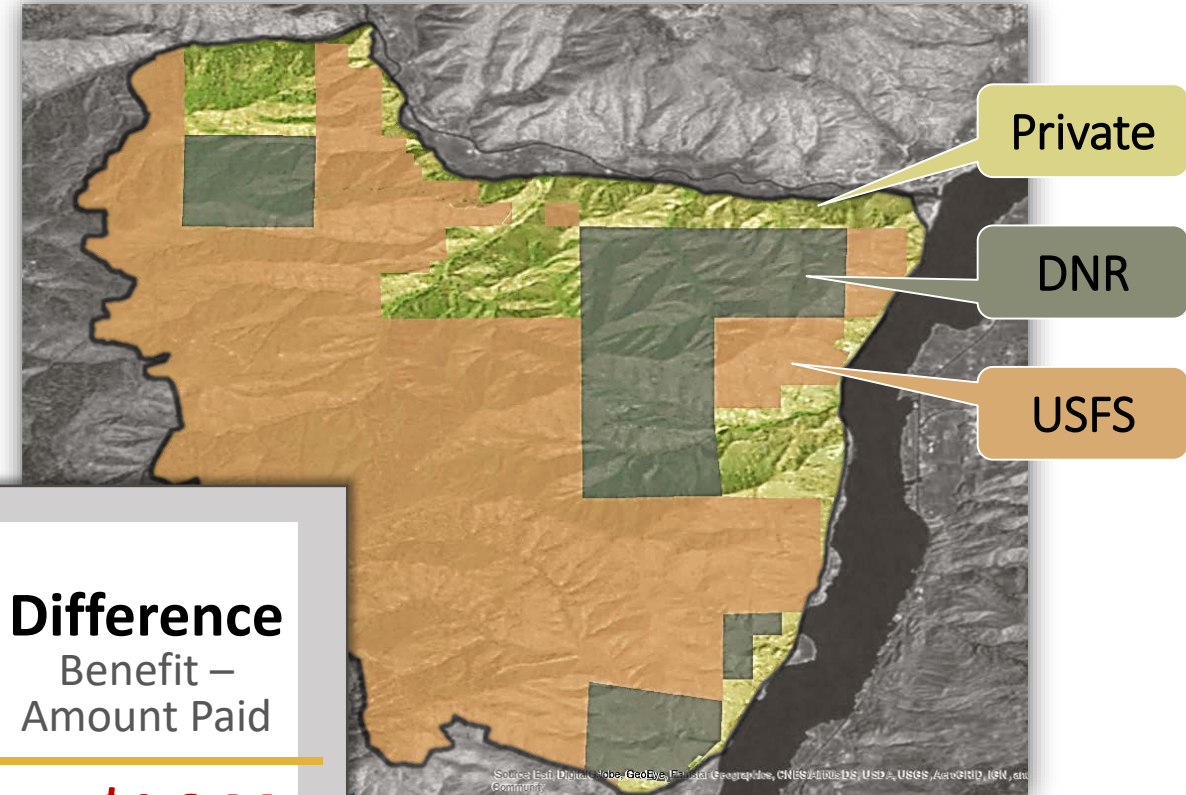
Mutual or Reciprocal Aid Agreements

Agencies help each other with no reimbursement during the **initial response** (*about 1 work shift*)



Closest available force typically responds first

Master Agreement Used for Cost Sharing



Mills Canyon Fire (2014). Photos from NWCG

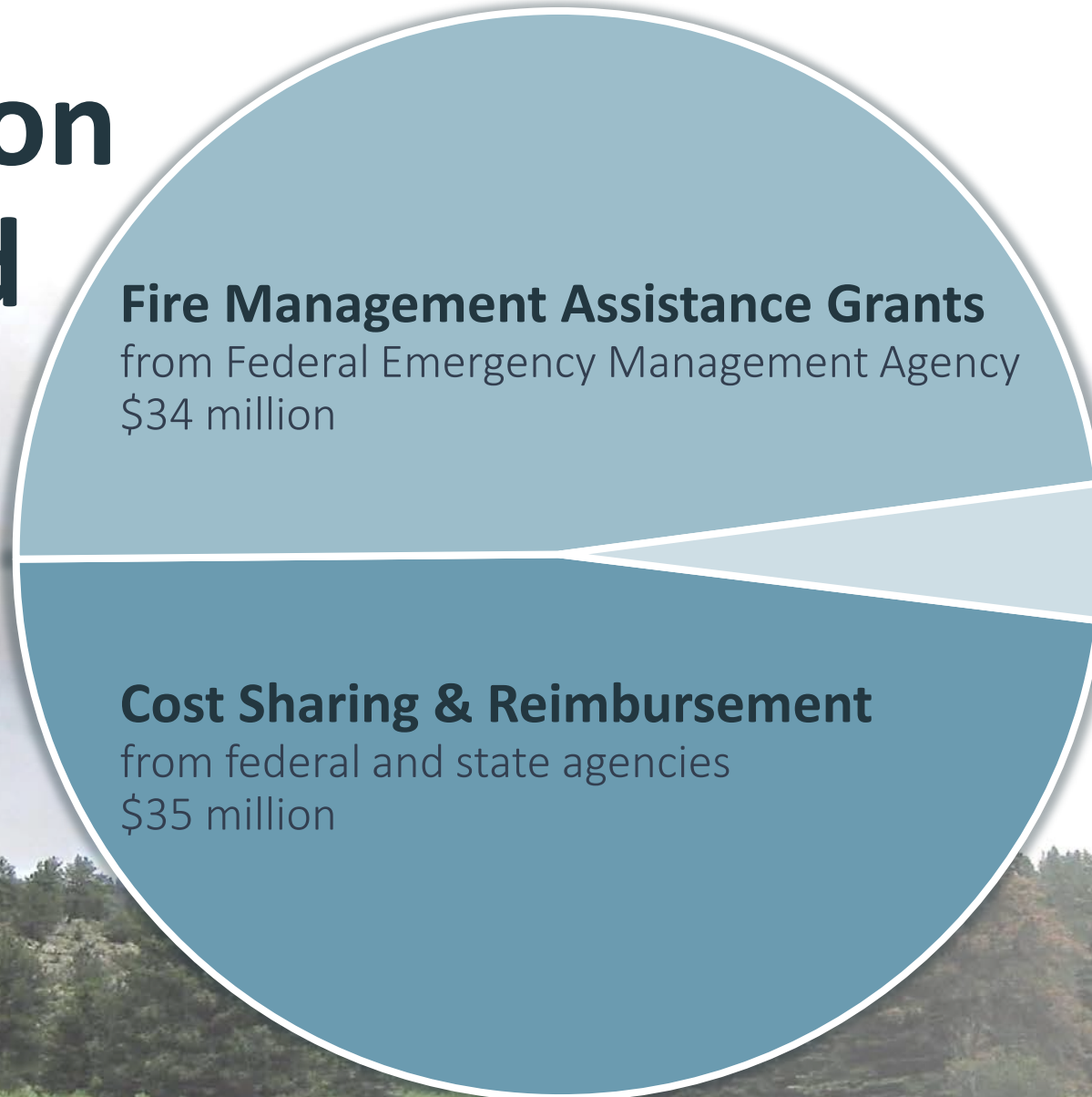
	Total Benefit Received resources used to protect agency land	Amount Paid payment to staff or contractors	Difference Benefit – Amount Paid
DNR	\$1.7 M	\$3.0 M	- \$1.3 M
Fire Marshal	\$1.0 M	\$0.8 M	\$0.2 M
USFS	\$5.6 M	\$4.5 M	\$1.1 M

Reimburse difference

If benefit received exceeds amount paid

\$72 million recouped by state

(FY 2010-16)



DNR Recoveries
from private parties that negligently start fires
\$3 million

Sources: Reimbursement and recovery provided by DNR, FMAG data provided by the Emergency Management Division (EMD)

Acres burned may not be reliable

for sharing or understanding fire costs

Similar acreage, different costs

Fire	Acres	Cost
Tucannon	2,630	\$400,000
Lone Mountain 1	2,770	\$3,600,000

Source: Northwest Interagency Coordination Center Annual Reports 2014 and 2015. Data reflects acreage and estimated costs for all agencies before cost share or reconciliation.

Other factors may influence fire costs

as cited in national research

- Topography, weather, fuel buildup
- Development, housing density
 - Studies do not estimate how much these factors affect cost

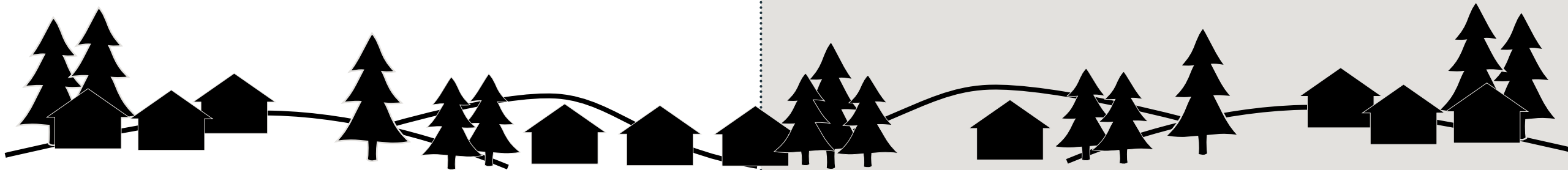




Photo credit: IMT #10

Collecting fire data

Conclusion: Accurate and refined data collection is needed to improve information about costs and characteristics

DNR fire database has incident records

11,000 incidents
(FY 2010-16)

Characteristics not costs

DNR's data on fire characteristics is often incomplete, unused, or unreliable

Key data elements not identified

- Over a hundred data fields in system
- Many fields incomplete or unused

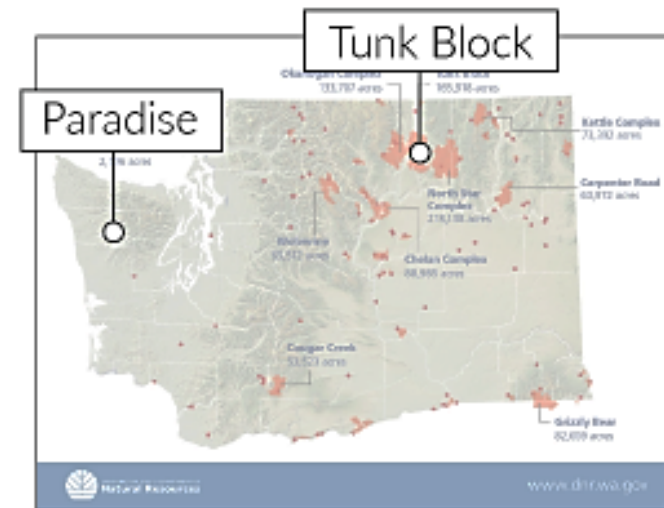
Data can be unreliable

Tunk Block Fire

Federal Data: 165,918 acres
DNR Data: 165,885 acres ✓

Paradise Fire

Federal Data: 2,796 acres
DNR Data: 5 acres ✗



Sources: DNR presentation, January 2016.

Federal data from National Wildfire Coordinating Group. DNR data from its fire database.

Legislative Auditor Recommendation #1

DNR should refine its collection of key data elements and seek input from the appropriate legislative committees.

- Identify the key data elements
- Propose data elements to legislative committees
- Review the list on an ongoing basis

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Legislative Auditor Recommendation #2

DNR should improve the accuracy and reliability of the key data elements it collects.

- Implement agency-wide policies and procedures for data entry and validation
- Complete data refinement in Recommendation #1 first

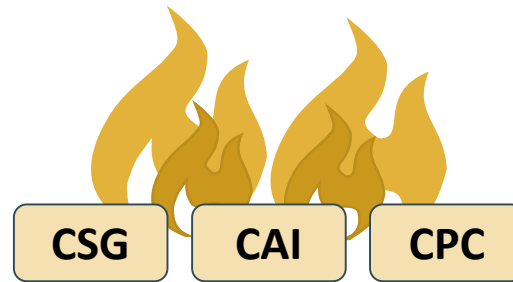
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DNR lacks an efficient way to identify the cost of individual fires



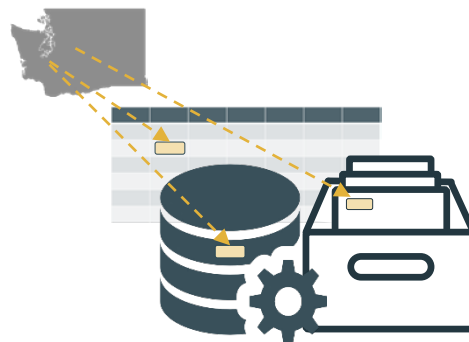
Actual expenses are in a financial database.

The financial database is searchable only by code.



Codes associate each expense with a fire.

A fire can have more than one code.



Codes are recorded in many separate locations.

Compiling all codes for a fire is a manual process.

Legislative Auditor Recommendation #3

DNR should develop a systematic and verifiable way to identify the costs of individual fires.

- Many possible approaches, simple to complex
- Any approach should ensure that the list of codes is consistently maintained and updated throughout the fiscal year

DNR Concurrs

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Full Report

www.leg.wa.gov/jlarc/reports/2017/WildfireSuppression/pf/default.html

