WEEDS, FIRE RISK, & RESILIENT FOREST LANDSCAPES

Weeds can become an unintended consequence of fire & fuels management

THE PROBLEM

Woody fuel treatments can increase weeds by:

- Opening canopy for light-loving weeds
- Disturbing soil & established native species
- Spreading seeds between treatment sites

ECOLOGICAL IMPACTS

Weeds impact biodiversity & ecosystem function

Fires often exacerbate the impacts of weeds by removing natives & benefiting invasives

Decrease native plant & wildlife habitat

Increase erosion & alter hydrologic cycling

Decrease forage for livestock & wildlife

FIRE IMPACTS

Weeds alter fuel & fire characteristics

Dry out quickly in summer, easily ignite and shift fire season earlier

Increase fine fuel load & continuity in treated areas

Increase fire spread rates across landscapes

Decrease fire response times

Increase fire frequency as weeds recover quickly (1-3 years) after fire

WEEDS ARE FUEL!

CHALLENGES of effective weed management include:

SOCIAL CHALLENGES

1. Weeds not uniformly viewed as a fuel and fire problem (especially in forests)
2. Weeds aren't viewed as an issue until widespread, when management is much more difficult

POLICY CHALLENGES

2. Lack of weed-focused management targets
3. Funds only available immediately after fires, not when weed invasions occur years later

IMPLEMENTATION CHALLENGES

3. Limited integration among resource specialists during project planning
4. Limited seed resources and species for post-fire restoration efforts

TACKLING THE PROBLEM

Working towards effective weed management by:

- Planning & embracing existing policies together
- Setting quantifiable weed targets
- Investing in weed management & offering flexible funding for post-fire weed treatments
- Increasing options for post-fire seed resources
- Conducting targeted weed research
- Spreading the word! Effective education & sharing science at local & leadership levels

Weed management is part of building resilient forest landscapes

This graphic was a joint effort between the Northwest Fire Science Consortium and the Great Basin Fire Science Exchange. Contact: nw.fireconsortium@oregonstate.edu