<table>
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<th>Climate Adaptation Action</th>
<th>General Description</th>
<th>Climate Relevance</th>
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| Thinning                  | Reducing forest density by cutting and/or physically removing vegetation from the landscape  
* Relevant Practices: commercial and pre-commercial thinning, daylighting, improvement cuts, regeneration practices, salvage | • Reduces fire risk by reducing fuel quantities and disrupting fuel continuity (i.e., surface and ladder fuels)  
• Improves growing conditions and health/vigor of fire-resistant species, increasing individual tree and overall landscape resilience to fire |
| Mechanical Fuel Treatments| Using machines to physically remove dead, downed, and other fuels from the landscape  
* Relevant practices: Thinning, pruning | • Reduces fire risk by reducing fuel quantities and disrupting fuel continuity (i.e., surface and ladder fuels) |
| Prescribed Fire           | Intentional artificial ignition and subsequent management of fire on the landscape  
* Relevant Practices: pile burning, broadcast burning (wilderness & non-wilderness, various ignition methods) | • Reduces risk of catastrophic or stand-replacing fire by targeting and reducing surface and ladder fuels  
• Allows for re-introduction of natural fire regimes on the landscape  
• Prepares seedbed for planting and/or natural re-seeding of fire-resistant species |
| Managed Wildfire          | Allowing naturally ignited fires to burn on the landscape, but actively managing fires (i.e., controlling burn path and extent) to protect areas of concern (i.e., structures, no-burn areas)  
* Relevant Practices: wildland fire use | • Regulates forest density and fuel conditions and build-up, preventing uncharacteristic forest conditions and minimizing future risk of catastrophic or stand-replacing wildfire  
• Facilitates return of landscape to historical fire-resilient structure and composition |
| Seeding fire-resistant species | Artificially planting and/or creating ideal conditions for natural regeneration of fire-resistant species  
* Relevant Practices: reforestation, regeneration treatments, fill plant, improvement cuts, prescribed burning | • Increases stand and landscape resilience to fire |
| Removal of fire-prone species | Targeted selection and removal of tree species and/or individual trees that are vulnerable to fire  
* Relevant Practices: improvement cuts, regeneration practices, commercial/pre-commercial thinning, salvage | • Increases stand and landscape resilience to fire |
Descriptions of Relevant Practices:

- **Commercial/Pre-Commercial Thinning**: Reducing existing tree density to a target residual density. Typically includes retention of desired species (e.g., fire-resistant, shade-intolerant tree species).
- **Daylighting**: Removing vegetation adjacent to a target tree to increase tree growth and vigor by reducing immediate competition.
- **Improvement cuts**: Treatments conducted to remove trees of undesirable species, form, age or condition and improve overall stand condition.
- **Salvage**: Removal of dead, dying, or damaged trees.
- **Pruning**: Removal of lower tree branches to minimize ladder fuels.
- **Pile burning**: Burning of fuels that have been gathered into distinct piles with no fuel connectivity to other piles.
- **Broadcast burning**: Prescribed burns that occur over large(r) areas in both wilderness and non-wilderness. Can include aerial and hand ignition.
- **Wildland fire use**: Managing naturally ignited wildfires to achieve natural resource objectives.
- **Reforestation**: Increasing amount of vegetation on the landscape via natural regeneration (i.e., tree reproduction, seeding, and growth) and artificial (i.e., hand-planting) methods.
- **Regeneration**: Various treatments (e.g., to increase forest stand health and resilience (i.e., by removing disease-prone individuals, maintaining fire-resistant and/or old-growth tree reserves)
- **Fill plant**: Planting of trees in previously treated areas to supplement and meet reforestation/regeneration goals and achieve target stand densities.
References:
Bollenbacher, B., Kolb, P., & Morrison, J. 2013. Draft Vulnerability, Exposure, and Sensitivity in Restoring and Maintaining the Adaptive Capacity of Forest Landscapes in the Northern Region of the Northern Rocky Mountains.


Northwest Available Science Assessment Project: Identifying Fire-Related Climate Adaptation Actions