

Cumulative Effects Documentation

Resource Topic	Potential Effect of proposed action and (Evaluation Criteria)	Length of Proposed Action Effect	Spatial Bounds of Proposed Action Effects	Other future actions identified in the Forest Plan whose effects may combine with the proposed action	Effect of Wind Events	Cumulative Effect
Water, wetlands, floodplains	Erosion from temp roads (Estimated Miles of temp Roads)	One to Three years	All watersheds on forest including portions off forest	-Road construction: 1 mile/year -Road decommissioning: 23 miles/year -Timber Harvest: 3,200 acres/year	Increase in CWD in streams	No cumulative effects are anticipated based on the implementation of Forest Plan standards and guidelines: FW-214, FW-215, and FS-216
Soil	disturbance, displacement, compaction nutrient cycling (Acres treated)	Three years to recover	Forest-wide in treated stands only	-Timber Harvest: 3,200 Acres/year -Rx Burn Program: 100,000 ac/year	Increased rate of nutrient cycling	No cumulative effect from timber harvest since merchantable trees would be removed by proposed action and there would be no harvest re-entry for 15 years.
Fuels/ Vegetation	Change in Fire Behavior and Fuel loading (Tons/Acre)	Time on ground until normal Rx burn cycle	Forest-wide in treated stands only	-Rx Burn Program: 100,000 ac/year	Increased fuel loading	A beneficial cumulative effect would be more efficient and safer burns when routine burn rotation overlaps with a treated stand.
Coarse woody debris, snags	Reduction in CWD/Snags (Snags/ac) (Tons/ac)	Length of time CWD on the ground	Forest-wide in treated stands only	-Timber Harvest: 3,200 acres/year -Rx Burn Program: 100,000 ac/year	More CWD/snags created	While the proposed action would reduce higher concentrations of CWD and snags, it is likely that that if not treated through this project that routine Rx Burning would have a similar reduction within 3-5 years. Additionally, since snag levels have been constant to increasing since 2002, and since based on historic wind events it is unlikely that more than 10% of the forest would be treated; it is not believed that this project would result in a cumulative reduction in CWD or snags on the forest.
Heritage resources	No Effect based on flag and avoid. (#sites affected)	Length of operations	Forest-wide in treated stands only		No Effect except maybe historic structures?	No cumulative effect since all areas would be surveyed and sites marked to avoid.
Air quality	Change in smoke	Duration of burning	Air sheds	-Rx Burn Program: 100,000 ac/year	Increased risk of more smoke when burning	No cumulative effects since the areas to be treated under the proposed action would likely be burned within 3-5 years as part of routine Rx burning. The only difference among alternatives is the No Action would have more smoke. Forest Plan standards would require burn plans to manage smoke within state guidelines.
Public	Change in	Duration of	Forest-wide		Blocked Access,	No cumulative effects since the proposed action

health and safety	access and widow makers	operations	primarily along roads, trails, and developed sites		widow-makers	would reduce potential threats to public health and safety. There would be no cumulative effects since access to the Forest would be improved under the Proposed Action.
RCW habitat/ RCW cavity trees	Effect heavy fuels on RCW habitat. (Tons/ac)	Length of time on the ground	Forest-wide in MA 2.	-Timber Harvest: 3,200 acres/year -Rx Burn Program: 100,000 ac/year	Lost RCW habitat	No cumulative effects since MA 2 would be treated to reduce any impacts to RCW habitat and cavity trees from heavy fuel loads.
T&E/ Sensitive/ MIS Plants		Duration of operations	Forest-wide in treated stands only			Given mitigation associated with this proposal in proximity to TES plants and habitats, and implementation of other measures for protecting TES plants from negative impacts there would be no adverse cumulative effects.
Economics	Value of sold wood	Life of project	Counties within reasonable haul radius of forest	-Timber Harvest: 3,200 acres/year -Other off-forest sales of damaged timber during major events	Lost value of wood	Overall benefit from mulching and salvage contracts. Federal sales and non-federal sales could result in a flooded market and reduced timber values. (Good spot for some historic outcomes of wood values following hurricanes)