**Lodgepole Pine Treatment Comparison**

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| Objectives:* Reduce the severity and intensity of a wildfire within the urban interface.
* Emulate natural disturbance in lodgepole pine dominated stands to mimic variable structural and spatial patterns across the landscape in order to increase resistance and resiliency to future natural disturbance.
* Initiate fuel reduction treatments in preparation for future prescribed broadcast burn opportunities. LONG TERM OBJECTIVE

Indicators:* Flame length, rate of spread, fireline intensity, torching index, crowning index, fire type, and fuel hazard rating.
* Acres treated to maintain structural diversity of lodgepole pine dominated stands across the project area
* Acres effectively treated to re-introduce fire on the landscape. LONG TERM OBJECTIVE
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|  | **Manual** | **Mechanical** | **Untreated** |
| **Appropriate Treatments****Guidelines:*** Average Size of Trees to be Cut
* Topography
* Amount of Rock in Unit
* Amount of Perennial and Intermittent Streamcourses
* Road Access
* Legal Access (number of needed easements)
* Amount of Temporary Road Construction to Access Unit
* Cost
 | Patchcuts (1-5 acres)Some may be mechanical (average trees < 6” DBH)Slopes 0 - <35%> 30% of Treatable GroundMoreAverage existing road accessFlexibility0 MilesLess Expensive | Clearcuts (5-10 acres) (average trees > 6” DBH)Slopes < 35%< 30% of Treatable GroundLessGood existing road accessLimited< 4 MilesMore Expensive | NANANANANANANANANA |
| **Outcomes/Results Vegetation:*** Treatment
* Stand Structure
* Cover Type (Potential Change)
* Roads
 | Up to 30% of unit acres can be patchcut/clearcut; up to 30% of additional aggregation acres can be treated if presentVariable with small openings that provide spatial structural diversity among the existing unit structure Low to ModerateExisting | Up to 30% of unit acres can be patchcut/clearcut; up to 30% of additional aggregation acres can be treated if presentVariable with large openings that provide spatial structural diversity among the existing unit structure ModerateImproved existing and temporary roads | 0 acres treated Primarily continuous and homogenous structure within the unit. Some minor aggregations of variable structure.No ChangeNA |
| **Outcomes/Results Fuels:*** Fuel Treated
* Piles/Lop & Scatter
* # of Piles
* Pile Size
* Piled Material
 | Surface, ladder, crownHand30+ piles/ac6’x 6’ to10’ x 10’ < 8 inches | Surface, ladder, crown Machine ~5 piles, one landing/20 ac10’x 10’ to 20’ x 20’ Non-merchantable material | NANANANANA |
| **Outcomes/Results Prescribed Burning:*** # of Piles to Burn
* Need for Another vegetation Treatment Before Fire Re-introduction
* Fuel Preparation (Surface Fuels to Carry Fire).
* Resilience to Wildfire Post-treatment
 | HighLow/MediumLow to MediumLow | LowLowLow to MediumMedium | NAHighNALow |
| **Outcomes/Results Wildfire Behavior:*** Flame Length
* Rate of Spread
* Fireline Intensity
* Torching Index
* Crowning Index
* Fire Type
* Fuel Hazard Rating
 | LowHighModerateLow LowSurfaceModerate | LowHighLow LowLowSurfaceModerate | HighModerateHighHighHighSurface/CrownHigh |
| **Outcomes/Results Suppression Strategy:*** Line Construction Efficiency
* Retardant Effectiveness
* Structure Protection (Private Land w/ D-Space Completed
* Structure Protection (Private Land w/ D-Space Not Completed
* Structure Protection (Access to Structure w/ NFS Lands Fuels Mitigation)
* Structure Protection (Access to Structure w/out NFS Lands Fuels Mitigation)
 | Low/MediumMediumMedium LowMediumNA | Medium/HighHighHigh LowHighNA | LowLowLow LowNALow |
| **Outcomes/Results Aesthetics:*** Visual Impact (Cut)
* Visual Impact (Piles)
* Pile Longevity
* # of Large Tree Retention
* Presence of Invasive Weeds
 | Low-MediumHighOne Winter season cure timeHighLow/Medium | HighMediumOne Winter season cure timeMediumMedium | LowLowNAHighLow |
| **Outcomes/Results Wildlife:*** Habitat Structural Stage (Potential Change)
* Habitat Tree Species Diversity
* Understory Species Tree/Shrub/Grass Diversity
* Horizontal Structure (Downed Wood)
* Snag Retention
 | Low/MediumLowMediumMediumHigh | Medium/HighMediumHighLow/MediumMedium | LowLowLowHighHigh |