**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 | | | |
|  | **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 Ground  More  Average existing road access  Flexibility  0 Miles  Less Expensive | Clearcuts (5-10 acres)  (average trees > 6” DBH)  Slopes < 35%  < 30% of Treatable Ground  Less  Good existing road access  Limited  < 4 Miles  More Expensive | NA  NA  NA  NA  NA  NA  NA  NA  NA |
| **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 present  Variable with small openings that provide spatial structural diversity among the existing unit structure  Low to Moderate  Existing | Up to 30% of unit acres can be patchcut/clearcut; up to 30% of additional aggregation acres can be treated if present  Variable with large openings that provide spatial structural diversity among the existing unit structure  Moderate  Improved existing and temporary roads | 0 acres treated  Primarily continuous and homogenous structure within the unit. Some minor aggregations of variable structure.  No Change  NA |
| **Outcomes/Results Fuels:**   * Fuel Treated * Piles/Lop & Scatter * # of Piles * Pile Size * Piled Material | Surface, ladder, crown  Hand  30+ piles/ac  6’x 6’ to  10’ x 10’  < 8 inches | Surface, ladder, crown  Machine  ~5 piles, one landing/20 ac  10’x 10’ to  20’ x 20’  Non-merchantable material | NA  NA  NA  NA  NA |
| **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 | High  Low/Medium  Low to Medium  Low | Low  Low  Low to Medium  Medium | NA  High  NA  Low |
| **Outcomes/Results Wildfire Behavior:**   * Flame Length * Rate of Spread * Fireline Intensity * Torching Index * Crowning Index * Fire Type * Fuel Hazard Rating | Low  High  Moderate  Low  Low  Surface  Moderate | Low  High  Low  Low  Low  Surface  Moderate | High  Moderate  High  High  High  Surface/Crown  High |
| **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/Medium  Medium  Medium  Low  Medium  NA | Medium/High  High  High  Low  High  NA | Low  Low  Low  Low  NA  Low |
| **Outcomes/Results Aesthetics:**   * Visual Impact (Cut) * Visual Impact (Piles) * Pile Longevity * # of Large Tree Retention * Presence of Invasive Weeds | Low-Medium  High  One Winter season cure time  High  Low/Medium | High  Medium  One Winter season cure time  Medium  Medium | Low  Low  NA  High  Low |
| **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/Medium  Low  Medium  Medium  High | Medium/High  Medium  High  Low/Medium  Medium | Low  Low  Low  High  High |