**FORSYTHE II UNITS 52, 53, 54, 55, 80**

**PRESCRIPTION EVALUATION**

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| **Unit 52** |
| USFS Objectives for Unit 52* Restore ponderosa pine/mixed conifer stands toward their characteristic species composition, structure, and spatial patterns in order to increase resistance and resiliency to future natural disturbance in a changing climate.
* Expand mature ponderosa pine forest across the landscape and increase resiliency to natural disturbance and climate change.
* Minimize torching potential of individual trees and groups of trees with intermingled crowns during a wildfire. Expand spacing between crowns to minimize crown fire potential between individual and groups of trees.
* Promote conditions favorable to ponderosa pine regeneration by opening the crown canopy in select locations to perpetuate the sustainability of the stand into the future.
* Promote favorable habitats for a variety of wildlife species and maintain connectivity of those habitats both spatially and temporally.
* Reduce existing stand density.
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| Background Information for Unit 52 (8 acres):* The Average Existing Basal Area = 82 ft2 / acre; Average Existing Basal Area (dead) = 4 ft2 / acre.
* The unit is identified as Ponderosa Pine Mixed Conifer Treatment in the DN.
* The unit is dominated with large mature ponderosa pine (~77% of the unit has trees > 12” DBH in the overstory). The unit is a mixed stand primarily with conifers < 12” DBH. Aspen makes up about 12% of the area on average.
* Species Mix (overstory/understory1): ponderosa pine (69%/15%), Douglas-fir (12%/8%), Aspen (12%/16%), limber pine (4%/0%).
* The area is designated as old growth development.

**Data information from existing condition step transect surveys.****1Overstory/understory: Data is gathered by taking points systematically through the unit. At each point, the associated tree in the highest part of the crown canopy directly above the point is noted by size and species and is classified as “overstory”; the next tree crown beneath the associated highest tree is noted by size and species and is classified as “understory”. Some areas may have more than one canopy layer, but only the two highest canopies are captured in this survey.** |
| **MFG comments** | **USFS comments** |
| * Previously treated during Winiger Ridge Project.
* Mostly well-spaced Ponderosa; Limited number of Doug Fir, with DF increasing toward north edge of unit approaching North facing slope roll-off; A very few Lodgepole near Purple Pin TB 19.
* Mainly DF regen since Winiger treatment.
* Winiger Project created fire break clearing (~30+ yards wide) along the almost straight North edge of unit from West end of this line up to the East uncut corner (uncut corner is market by Teagen Track), so unit is well protected from denser North slope of DF beyond it.
* In general, the unit is fire safe already – well spaced Ponderosa with little ladder fuel. Thinning of recent (post-Winiger) regen will maintain this condition.
* Bottom Line: Very good results from Winiger treatment simply need to be maintained.
* Do not cut areas:
	+ - Two rock outcropping areas at Red Pins TB 28 and TB 29, outlined by Teagen Tracks. These provide elevational cover for animals to hide behind / in while transiting through the more open surrounding terrain (and, in any case, have very little regen).
		- North East corner of unit (marked by Red Pin TB 20 and Teagen Tracks) that was correctly not treated in Winiger Project. This leaves dense forest to mask animal transit corridor in this area extending North East to Aqueduct. Animal transit here is known. We want the dense forest in this corner to keep humans out of this area. Any cutting here would compromise the animal corridor. Nothing to be gained by cutting here for fire safety because this is really the continuation of the dense North and North East facing slopes beyond the main flatter part of the unit.
 | Field Observations:* + - The fire dependent mature ponderosa pine stands have been excluded from fire for at least a century and are now very susceptible to high mortality from wildfire due to crown density, and ladder fuels primarily from branches reaching the ground. Increase wildfire resilience by increasing mature ponderosa crown separation and reducing ladder fuels where possible.
		- The unit has some old growth characteristics (e.g. mature ponderosa pine). This unit has the potential to expand mature forest conditions when combined with the identified old growth in Unit 54. Open, old growth ponderosa pine has valuable habitat potential for species like flammulated owls. This connectivity could also provide refuge for wildlife species moving from Boulder Canyon to south of Magnolia Road.
		- The adjacency of aspen in Unit 53 provides greater forage and cover opportunities for species as well as connectivity between the two mature habitats (Units 52 and 54).
* Stand density inhibits ponderosa pine regeneration. Douglas-fir regeneration is sporadically present throughout the unit.
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| **MFG Proposal/Recommendations (Bold) with USFS Responses/Commitments *(in Unbolded Italics)*** |
| **Cut most regen of 2” DBH or less – keep a few of the taller (close to 2” DBH) Doug Fir for generational diversity - Keep viable Ponderosa regen for generational diversity***USFS recommends cutting all Douglas-fir 2” DBH or less and retaining healthy ponderosa pine 2” DBH or less. Maintaining generational diversity is an important consideration, but due to Douglas-fir’s prolific seeding capabilities, it is expected to continue providing stand structural diversity when it is a component in the overstory.* **Rocky area near Purple Pin TB 19 has a few Lodgepole. These can be left (as part of North Slope beyond unit boundary) or removed to reduce Lodgepole encroaching***The USFS will cut all lodgepole pine up to 14” DBH as identified with Purple Pin TB 19 because lodgepole pine is at the lower end of its elevational range and with the projected change to a warming and drying climate, lodgepole pine will be more susceptible to mortality under those conditions.* **Do not cut:*** **Two rock outcropping areas at Red Pins TB28 and TB29, outlined by Teagan Tracks.**

*The USFS will retain trees at rocky outcrops identified by Red Pins (TB 28 and TB 29).** **North East corner of unit (marked by Red Pin TB 20 and Teagen Track)**

*The USFS will delete the acres identified in this area.* |
| USFS Additions to MFG Proposal/Recommendations |
|  **The USFS will cut ponderosa pine and Douglas-fir up to 14” DBH in order to create gaps between individual tree crowns and groups of tree’s crowns and reduce stand density.** * **The absence of fire for over a century as evidenced by individual tree structure and overall high stand density has resulted in this area being a high wildfire risk.**
* **This unit provides important stand characteristics encompassed in a mature forest condition for certain wildlife species. Maintaining key mature forest characteristics in this area would complement adjacent mature forests in adjacent lands (private, Boulder County, and USFS) and expand important critical habitat in this area and maintain connectivity to other developing stands within this vicinity.**
* **In order to perpetuate the stand over time, the ponderosa pine regeneration needs the capacity to establish on the site. Creating openings by thinning promote conditions favorable for ponderosa pine seedling establishment. Current conditions do not favor ponderosa pine regeneration due to the elevated closed crown canopy and is evidenced by the spindly ponderosa pine regeneration that is present in shaded areas. Ponderosa pine is an intolerant species to shade and needs sunlight and openings in order to vigorously establish and develop into a new cohort. especially with the expectation of a changing climate to a more drying and warming condition.**

**The USFS will cut conifers up to diameter limits in aspen clones in order to restore this limited aggregation across the landscape in the absence of fire.*** **Aspen provide important environment conditions for specific wildlife species and connectivity between adjacent dominate aspen habitats.**
* **Aspen modifies fire behavior during a wildfire event and allows options for strategic fire suppression tactics.**

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| Final Decision: Guidelines Moved Forward |
| **Agreed to do manual treatment. Agreed to treat this unit like old growth development.****Agreed not to cut anything greater than 12” DBH for allow species.** * Will be selective in ponderosa pine, may cut up to some 12” DBH trees, but not all
* Will cut conifers up to 12” in aspen
* Focus on Douglas-fir and lodgepole to be cut

**Agreed existing surface fuels are not an issue in this unit. Only activity fuels will be piled.** **Agreed to pile material up to 8”** (8-12” diameter bole wood will be left on the ground with manual treatment). |

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| **Unit 53** |
| USFS Objectives for Unit 53* Restore aspen toward their characteristic species composition, structure, and spatial patterns in order to increase resistance and resiliency to future natural disturbance.
* Promote favorable habitats for a variety of wildlife species and maintain connectivity of those habitats both spatially and temporally.
* Promote resiliency of aspen component both spatially and temporally.
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| Background Information for Unit 53 (16 acres):* The Average Existing Basal Area = 58 ft2 / acre; Average Existing Basal Area (dead) = 3 ft2 / acre.
* The unit is identified as Aspen Restoration in the DN.
* The unit is in two parts and is an aspen dominated stand with residual conifers in the overstory and regeneration in the understory.
* Conifers > 12” DBH in the overstory make up over 36% of the unit.
* Species Mix (overstory/understory): Aspen (39%/52%), Douglas-fir (33%/18%), ponderosa pine (23%/8%), lodgepole pine (4%/2%).

**Data information from existing condition step transect surveys.****1Overstory/understory: Data is gathered by taking points systematically through the unit. At each point, the associated tree in the highest part of the crown canopy directly above the point is noted by size and species and is classified as “overstory”; the next tree crown beneath the associated highest tree is noted by size and species and is classified as “understory”. Some areas may have more than one canopy layer, but only the two highest canopies are captured in this survey.** |
| **MFG comments** | **USFS comments** |
| * Previously treated during Winiger Ridge Project.
* Camping area – high social value.
* Winiger Project opened up area to Aspen but left behind a very pleasant mixture of Conifers well-spaced out to not compromise Aspen access to sunlight. Many, but not all, of the left behind Conifers are over 14” DBH.
* Conifer regen since Winiger treatment is not yet a threat to Aspens, but could be in 30-50 years; We will want to push this threat back by thinning regen, while leaving all the non-regen trees alone (that is, all the trees that were not cut during Winiger.
* Bottom line: Retain the nature of the Winiger Treatment.
* Do not cut areas:
	+ - Two islands of very dense Doug Fir of mixed generations indicated by Teagen Tracks around Red Pins 30 and 31. These should be left alone as they provide visual separation for humans and animal near roads or trails. Plus, they have almost no Aspen impact.
		- Strip at South edge of unit along Magnolia Road (indicated by Teagen Track, which connects at both ends to unit boundary – the strip lies between the Teagen Track and Magnolia Road). This similar to the two Doug Fir islands mentioned above, provides a visual barrier between Magnolia Road and the more open Aspen areas. Again, little impact here on Aspen (though there are a few Aspen within this strip). Strip serves both an esthetic social value (view when driving on Magnolia, shielding of campground from Magnolia, and animal transit cover (again shielding from Magnolia, and together with DF island at TB 31, shielding for passage near area of intersection campground road with Magnolia.
* Aspen Unit Clarification. Aspen Area marked by Green Pin TB 27 “Cut 95% regen 2” and under. And Green Pin TB 18 “Cut regen”.
 | Field Observations:* This unit is strategically located below Magnolia Road which is a potential fire suppression control feature. The aspen dominated stand is generally consistent with low/moderate intensity surface fire which can increase the chances of success for fire suppression along Magnolia Rd. The exception to the success of this strategy is the concentration of conifers adjacent to Magnolia Road which have a high potential for torching and spotting across the road into a dense stand with poor chances of success to suppress fire. The preferred treatment is to reduce the conifers along the road to reduce the spotting potential and also reduce conifers within the aspen stands to promote the retention and expansion of the aspen stand.
	+ - This unit and immediate surrounding private lands provide one of the largest and continuous aspen clones in the vicinity and across the landscape.
		- This unit could provide refuge/connectivity for wildlife species moving from Boulder Canyon to south of Magnolia Road.
		- Overstory conifer species continue to shade, seed, and regenerate within the clone. This inhibits the aspen to sustain establishment and favors a conversion to a conifer dominated stand over time in the absence of fire.
		- Despite current extent of the aspen clone, very little browse evidence from ungulates is present.
		- Very few snags in the unit.
		- There is a concern that the “southern strip” of mixed conifer and aspen adjacent to Magnolia Road would concentrate wildlife (primarily ungulates) to cross the road in this area. Sight distances are limited due to the conifer cover impeding wildlife visibility by traffic utilizing the road.
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| **MFG Proposal/Recommendations (Bold) with USFS Responses/Commitments *(in Unbolded Italics)*** |
| **Cut most regen of 2” DBH or less – keep a few of the taller (close to 2” DBH) Doug Fir for generational diversity - Retain some viable Ponderosa regen for generational diversity. Aspen Area marked by Green Pin TB 27 “Cut 95% regen 2” and under. And Green Pin TB 18 “Cut regen”***The USFS will not commit to “cutting most” of regen or “retain” conifers for generational diversity. This is an aspen unit and an objective of the project is to restore aspen on the landscape. Restoration doesn’t implicate the promotion of activities that are detrimental to meeting the objectives of re-instating aspen while minimizing its successional demise in a landscape absent of fire.* **Do not cut:*** **Two islands of very dense Doug Fir of mixed generations indicated by Teagen Tracks around Red Pins 30 and 31.**

*The USFS commits to this.** **Strip at South edge of unit along Magnolia Road (indicated by Teagen Track, which connects at both ends to unit boundary – the strip lies between the Teagen Track and Magnolia Road).**

*The USFS does not commit to excluding the entire strip of mixed conifer and aspen along Magnolia Road for both wildlife and fire concerns. Because this is an aspen restoration identified unit, the USFS does commit to cutting conifers only in areas where the number of stems of aspen is greater than stems of conifer species up to the diameter limits under the aspen prescription in the DN. Because this is a specialized treatment in an aspen restoration unit, conifers to be cut will be marked in blue.* |
| USFS Additions to MFG Proposal/Recommendations |
|  **In aspen clones, cut all conifers < 12” DBH in order to restore aspen on the landscape.** |
| Final Decision: Guidelines Moved Forward |
|  **Agreed to cut conifers 12” DBH and less next to Magnolia Road working back toward the dispersed camp sites.*** Distance TBD (one proposal was at least ½ to ¾ of the way)
* Focus on areas where juniper is on the ground.

**Still TBD: How the rest of the unit will be treated.** |

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| **Unit 54** |
| USFS Objectives for Unit 54* Restore ponderosa pine/mixed conifer stands, aspen, and meadows/shrublands toward their characteristic species composition, structure, and spatial patterns in order to increase resistance and resiliency to future natural disturbance.
* Expand mature ponderosa pine forest across the landscape and increase resiliency to natural disturbance and climate change.
* Minimize torching potential of individual trees and groups of trees with intermingled crowns during a wildfire. Expand spacing between crowns to minimize crown fire potential between individual and groups of trees.
* Promote conditions favorable to ponderosa pine regeneration by opening the crown canopy in select locations to perpetuate the sustainability of the stand into the future.
* Promote favorable habitats for a variety of wildlife species and maintain connectivity of those habitats both spatially and temporally.
* Promote resiliency of aspen component both spatially and temporally.
* On south aspects reduce ponderosa pine infested with dwarf mistletoe.
* Reduce the presence of dwarf mistletoe infested ponderosa pine.
* Reduce existing stand density.
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| Background Information for Unit 54 (18 acres):* The Average Existing Basal Area = 73 ft2 / acre; Average Existing Basal Area (dead) = 7 ft2 / acre.
* The unit is identified as Mixed Conifer Treatment Old Growth.
* The unit has a variety of size classes of conifers with trees between 8”- 12” showing dominance at 20% in the overstory. Conifers greater than 12” DBH in the overstory cover about 25% of the area. Conifers < 12” DBH comprise about 55% of the overstory, and approximately 13% of the area has an aspen overstory.
* Species Mix (overstory/understory): Douglas-fir (37%/17%), ponderosa pine (33%/16%), Aspen (13%/10%), lodgepole pine (8%/8%), limber pine (2%/0%), Rocky Mtn. Juniper (2%, 0%).

**Data information from existing condition step transect surveys.****1Overstory/understory: Data is gathered by taking points systematically through the unit. At each point, the associated tree in the highest part of the crown canopy directly above the point is noted by size and species and is classified as “overstory”; the next tree crown beneath the associated highest tree is noted by size and species and is classified as “understory”. Some areas may have more than one canopy layer, but only the two highest canopies are captured in this survey.** |
| **MFG comments** | **USFS comments** |
| * Unit 54 is Old Growth
* Previously treated during Winiger Ridge Project.
* Boundary modifications and comments as follows:
	+ - South Section South of Boundary with Unit 80; Boundary ends just east of Unit 54/55 boundary line; Teagen short, roughly North-South track, south of Green Pin TB 7, defines the boundary.
			* South facing, somewhat steep slope – dry, rocky ground; very open.
			* Widely spaced conifers – mostly large Douglas Fir; Significant number of large Ponderosas, many with mistletoe; Some widely spaced, mostly Doug Fir regen; A few large junipers, but all in isolation, so not a fire danger.
			* Everything is widely spaced, so no fire danger – this is good firefighting terrain; Very little to no ladder fuel; Reasonable amount of slash on the ground – the right amount to help grass / flower growth without allowing invasive species (and also in some place OK small animal cover).
			* Overall no reason for any treatment
			* Even the limited regen is good for generational diversity and does not present any ladder fuel fire danger.
		- North Section of Unit 54 along North facing slope, extending to North side of part of Unit 55.
			* Teagen track defines the boundary.
			* Unit 55 area to be included here is marked with Purple Pin TB 15 “Include with unit 54”.
			* Previously treated during Winiger Ridge Project
			* Similar to Unit 80, but in some places denser, and with less Aspen.
			* Mostly Doug Fir; Lots of regen
			* Mostly classified as Old Growth
		- South Section of North half of Unit 54 along South facing slope facing toward Unit 80, and East and South section of Unit 55.
			* Teagen track defines the boundary with North section of North half of Unit 54.
			* Previously treated during Winiger Ridge Project.
			* Classic south facing Ponderosa area with some Doug Fir.
			* Generally, in good shape, but could perhaps use a bit of regen / ladder fuel reduction to further enhance Ponderosa character.
* There is an aspen clone in the area just in the neck of unit 54 between units 55 and 80.
	+ - Not large enough to be an aspen aggregation.
		- In very good shape but has a bit of conifer regen within it.
 | Field Observations:* The existing aspen stands adjacent to Rd 302.1 should be promoted to improve ingress/egress safety margin during a wildfire event and to complement the potential ridgeline control feature for suppression opportunities. On south slopes, reduce ladder fuels where possible to increase the integrity of the ridgeline control feature since torching and spotting from below the ridge could limit fire suppression effectiveness.
	+ - Good snag presence.
		- Larger trees could be enhanced by thinning from below.
		- Density of trees could cause some torching/scorching of mature trees while burning piles. This would lead to improved habitat for a variety of cavity nesters.
		- Provides dense cover for various wildlife species near Magnolia Road.
		- The old growth classification needs to be determined in this unit. Data sets indicate contradicting information for old growth (Retention/Inventoried). Aurelia and Kevin will look into the data and adjust boundaries as appropriate.
		- Develop different prescriptions for old growth treatment based on aspect (south and north).
		- On south aspects with ponderosa pine infested with dwarf mistletoe, remove heavily infested trees up to the diameter limit.
		- Douglas-fir presence on south aspects is not a desired condition especially in the face of a warming and drying climate. South aspects in the montane zone need to be dominated with ponderosa pine to be resilient to a changing climate.
		- Ponderosa pine regeneration is limited and sometimes impeded by an overstory of mature ponderosa pine infested with dwarf mistletoe. Areas where heavily infested trees are cut, consider and evaluate the possibility of planting ponderosa pine to assist in the perpetuation and sustainability of a ponderosa pine stand.
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| **MFG Proposal/Recommendations (Bold) with USFS Responses/Commitments *(in Unbolded Italics)*** |
| **Unit 54, South Section South of Boundary with Unit 80***The USFS accepts the recommended boundary changes and will utilize them during forest preparation layout.***Leave the few large Junipers – they are widely spaced from other trees, so not a fire danger, and certain animal species depend on them for food.***The USFS commits to retaining one large individual, or a clump of three or more if available per acre as identified in the DN. Though Rocky Mtn. juniper does provide a food source for certain animal species, they are a very high fire danger species because of their crown structure reaching the ground. They are very flammable and embers from consumed trees can spread long distances resulting in spot fires which is not a preferred condition within a wildland urban interface environment.***Acceptable to cut Ponderosa pine with heavy mistletoe up to 14” DBH. But many Ponderosas with mistletoe are too large to take out (over 14” DBH); If some mistletoe infested Ponderosas are taken out, use mistletoe infestation rating to focus on the ones that are most infested; And also consider generational diversity – preserve a good age mix (Area marked with Purple Pin TB 10 “Acceptable to cut PP with heavy mistletoe up to 14” DBH).***The USFS commits to the sanitation of dwarf mistletoe in the ponderosa pine by cutting the heavily infested trees up to 14” DBH. Generational diversity is limited by the intensity of cutting infested trees. Heavily infested trees in the overstory with dwarf mistletoe continue to shower seed onto understory trees resulting in a ripple effect of continued infestation of dwarf mistletoe within the stand over time. Large openings, free of dwarf mistletoe influence can be planted with ponderosa pine to perpetuate and sustain the stand dominated with ponderosa pine.***North Section of Unit 54 along North facing slope, extending to North side of part of Unit 55 (Marked with Green Pin TB 13)***The USFS accepts the recommended boundary changes and will utilize them during forest preparation layout.***Overall, treatment could include light ladder fuel and regen reduction to help with fire safety.***The USFS commits to reduce ladder fuel and regen reduction by cutting all conifers < 4” DBH except for healthy ponderosa pine. Due to the dense overstory primarily comprised of Douglas-fir, it is anticipated that heavy Douglas-fir regeneration continues to capture growing space in the understory. This treatment will address short term fuel reduction objectives, but ladder fuels will continue to have low wildfire resilience until the stand is treated more intensely with significant basal area and crown bulk density reduction.***Potentially alternate patches of untouched, denser areas with thinned patches; Thinned patches could be located to enhance Aspens.***The USFS commits to alternating patches of untouched, denser areas with thinned patches through the unit. Due to the amount of private and Boulder County lands, the extensive areas that have 300’ buffers due to land ownership on National Forest System lands, and the small amount of acreage that remains to be treated within the unit (specifically on north aspects), a modified treatment would still meet the intent of old growth conditions while addressing some fuel reduction objectives. Also, additional scorch both adjacent to and in the overstory from burning piles is expected to occur due to the light thinning and overall density of the stands on north aspects.* **But need to preserve Old Growth character and cover for animals.***The USFS will commit to maintain old growth character throughout Unit 54. Minimum characteristics that define low elevation old growth identified by the Forest Plan will be ensured.* **South Section of North half of Unit 54 along South facing slope facing toward Unit 80, and East and South sections of Unit 55. (Purple Pin TB 17).***The USFS accepts the recommended boundary changes and will utilize them during forest preparation layout.***Reduce Doug Fir regen / ladder fuel to the extent that it exists (there is not much); “Light DF/regen thin”.***The USFS does not commit to this recommendation. It is a south facing slope and will be treated like the response at the top of this section.***Aspen Clone in Unit 54 Between Units 55 and 80 (Marked by Green Pin TB 7).****Treat by removing the Conifer regen within the Aspen clone.** *The USFS will not commit to cutting just conifer regeneration because this action does not fully restore a healthy aspen aggregation in a resilient condition with the absence of fire. The successional process will continue, and the aspen clones will be engulfed by surrounding dominant conifer stands. In addition to aspen resilience for landscape diversity:** *Aspen provide important environment conditions for specific wildlife species and connectivity between adjacent dominant aspen habitats.*
* *Aspen modifies fire behavior during a wildfire event and allows options for strategic fire suppression tactics where aspen aggregations are substantial in size.*
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| USFS Additions to MFG Proposal/Recommendations |
| **In aspen clones, cut all conifers < 12” DBH in order to restore aspen on the landscape.****Old Growth Clarification (Adjusted after further old growth clarification presented at zoom meeting 7/15/20): A portion of the NW corner of Unit 54 has been identified as “Old Growth-Retention” under the Forest Plan and treatment will be implemented. The remainder of Unit 54 originally identified as old growth, is not designated in our databases and is available to treat.**  |
| Final Decision: Guidelines Moved Forward |
|  **Following agreements apply to North aspects in Units 54 and 55.*** Agreed to cut 4” DBH and below regen. Maintain a few small clumps. Focus on taking the regen out around the bigger trees.
* Prioritize to retain ponderosa pine and Douglas-fir. Remove the lodgepole.
* Agreed to take an occasional larger lodgepole pine or Douglas fir tree, 12” DBH or less, around ponderosa pine and remove ladder fuels to the crown of the ponderosa pine
* Agreed to manually treat unit.
* Take the conifer regen out of the aspen clumps and allow aspen to expand a little more, but leave a barrier.
* Agreed to do some surface fuel treatment around piles to maintain a buffer to help with minimizing creep during pile burning to maintain existing downed woody debris.

**Do we need to discuss treatments on south aspects?** |

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| **Unit 55** |
| USFS Objectives for Unit 55* Restore ponderosa pine/mixed conifer stands, aspen, and meadows/shrublands toward their characteristic species composition, structure, and spatial patterns in order to increase resistance and resiliency to future natural disturbance.
* Expand mature ponderosa pine forest across the landscape and increase resiliency to natural disturbance and climate change.
* Promote conditions favorable to ponderosa pine regeneration by opening the crown canopy in select locations to perpetuate the sustainability of the stand into the future.
* Enhance and expand the quality of the aspen component where appropriate.
* Promote favorable habitats for a variety of wildlife species and maintain connectivity of those habitats both spatially and temporally.
* Reduce the presence of dwarf mistletoe infested ponderosa pine.
* Reduce existing stand density.
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| Background Information for Unit 55 (5 acres):* The Average Existing Basal Area = 71 ft2 / acre; Average Existing Basal Area (dead) = 9 ft2 / acre
* The unit is identified as Douglas-fir Mixed Conifer Treatment in the DN.
* The unit is a mixed stand primarily with conifers < 12” DBH; Approximately 6% of the area has conifers > 16” DBH. Aspen makes up over 20% of the area on average.
* Species Mix (overstory/understory): Douglas-fir (53%/25%), ponderosa pine (18%/24%), Aspen (18%/18%), Rocky Mtn. Juniper (2%/0%).
* The area is designated as old growth development.

**Data information from existing condition step transect surveys.****1Overstory/understory: Data is gathered by taking points systematically through the unit. At each point, the associated tree in the highest part of the crown canopy directly above the point is noted by size and species and is classified as “overstory”; the next tree crown beneath the associated highest tree is noted by size and species and is classified as “understory”. Some areas may have more than one canopy layer, but only the two highest canopies are captured in this survey.** |
| **MFG comments** | **USFS comments** |
| * Previously treated during Winiger Ridge Project.
* Classic South facing Ponderosa area with some Doug Fir.
* Generally, in good shape, but could perhaps use a bit of regen/ladder fuel reduction to further enhance Ponderosa character.
 | Field Observations:* Reduce ladder fuels to minimize potential for crown fire initiation and retain and improve interior aspen stands. Thin adjacent to Rd 302.1 to improve ingress/egress safety margin during a wildfire event.
* Great snag retention here, could maintain these through treatment.
* Removing some overstory trees and current regen will allow for more greater browse in the understory.
* Wildlife cover and connectivity could be extended from unit 80 and 54 with similar treatment.
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| **MFG Proposal/Recommendations (Bold) with USFS Responses/Commitments *(in Unbolded Italics)*** |
| **Unit 55 area is marked by Purple Pin TB 16.***The USFS accepts the recommended boundary changes and will utilize them during forest preparation layout.***Reduce Doug Fir regen / ladder fuel to the extent that it exists (there is not much); “Light DF thin”.***The USFS commits to reducing ladder fuels on this south aspect facing unit. Conifers will be thinned to reduce ladder fuels up to 6” DBH favoring to retain healthy ponderosa pine over Douglas-fir.*  |
| USFS Additions to MFG Proposal/Recommendations |
|  **The new boundaries have reduced the acreage of this unit.** **Rocky Mtn. juniper guidelines will be followed to retain one large individual, or a clump of three or more if available per acre as identified in the DN.****Dwarf mistletoe infested ponderosa pine trees will be addressed like Unit 54 recommendations as appropriate.****In aspen clones, cut all conifers < 12” DBH in order to restore aspen on the landscape.****Old Growth Clarification (Adjusted after further old growth clarification presented at zoom meeting 7/15/20): A portion in the middle Northern portion of Unit 55 is designated as “Retention” under the Forest Plan and treatment will be implemented. The USFS commits to adjusting the boundaries to implement the MFG proposed boundary changes and treat Unit 55 as outlined above.** |
| Final Decision: Guidelines Moved Forward |
|  **See agreements made for North Aspects in Unit 54 and 55.****Do we need to discuss treatments on south aspects?** |

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| **Unit 80** |
| USFS Objectives for Unit 80* Restore ponderosa pine/mixed conifer stands, aspen, and meadows/shrublands toward their characteristic species composition, structure, and spatial patterns in order to increase resistance and resiliency to future natural disturbance.
* On north facing slopes enhance and expand the quality of the aspen component where appropriate to adjacent road that provides igress/egress to private property
* On south facing slopes promote favorable conditions to restore a healthy ponderosa pine dominated stand spatially and temporally and continue stand progression to favor old growth characteristics.
* Promote favorable habitats for a variety of wildlife species and maintain connectivity of those habitats both spatially and temporally.
* Reduce the presence of dwarf mistletoe infested ponderosa pine.
* Reduce stand density.
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| Background Information for Unit 80 (12 acres):* The Average Existing Basal Area = 83 ft2 / acre; Average Existing Basal Area (dead) = 16 ft2 / acre
* The unit is identified as Douglas-fir Mixed Conifer Treatment in the DN.
* The unit is dominated with aspen (~ 33% of the unit has aspen trees in the overstory and ~60% in the understory).
* Species mix (overstory/understory): Aspen – 38%, Douglas-fir – 33%, ponderosa pine – 19%, lodgepole pine – 10%.
* The area is designated as old growth development.

**Data information from existing condition step transect surveys.****1Overstory/understory: Data is gathered by taking points systematically through the unit. At each point, the associated tree in the highest part of the crown canopy directly above the point is noted by size and species and is classified as “overstory”; the next tree crown beneath the associated highest tree is noted by size and species and is classified as “understory”. Some areas may have more than one canopy layer, but only the two highest canopies are captured in this survey.** |
| **MFG comments** | **USFS comments** |
| * Previously treated during Winiger Ridge Project.
* North facing slope
* Conifer dominated with intermixed aspens. Conifers are primarily Douglas Fir (70%), then Ponderosa (25%), then Lodgepole (5%). The percentages are very rough estimates; There is some regeneration of young conifers, mostly Douglas Fir but including some Ponderosa.
* Geographically, Teagen’s track outlines the rock outcropping / ridge that runs along most of the South side of this unit. Red Pin TB5 marks the area as “Exclude ridge from cutting”; Ridge is more sparsely forested and has almost no regeneration growth of conifers.
* There is small patchcut running North-South in the Eastern part of the unit; Another patchcut / clear area between South edge of the South East lobe of unit 80 and the private house; And a large patchcut running North East from North East part of unit (this does not show up well in Google Earth).
* Bottom Line: Unit was well treated during Winiger Project; Canopy was opened up a bit – no more canopy opening needed or even useful on this north facing slope; Forsythe treatment should seek to maintain the Winiger result.
* Overall, the unit is fire safe due to North facing, moist slope; Reasonable canopy spacing from Winiger work for such an environment; No excessive regen - but this we will control further as per prescription above; Open fire fighting staging areas available due to adjacent open areas and rock ridge.
 | Field Observations:* Promote aspen where present while reducing the conifer encroachment and ladder/surface fuels adjacent to Rd 302.1 to improve ingress/egress safety margin during a wildfire event and extend to ridge to complement the potential ridgeline control feature for fire suppression opportunities.
	+ - The unit is primarily a north facing slope with a component of aspen that is being overtaken by conifers.
		- Fantastic large snags present providing both denning and cavity nesting habitat.
		- Within original NEPA boundary: Like Unit 52, on southern side, open, old growth ponderosa pine has valuable habitat potential for species like flammulated owls.
		- Aspen could be enhanced to provide new browse and cover.
 |
| **MFG Proposal/Recommendations (Bold) with USFS Responses/Commitments *(in Unbolded Italics)*** |
| **On south aspect of ridge, utilize south aspect prescription for old growth (Unit 54).***The USFS accepts the recommended boundary changes and will utilize them during forest preparation layout.***Cut most regen of 2” DBH.***(see below)***Perform light ladder fuel thin of conifers in 2” – 4” DBH range within the understory. This has to be weighed against generational diversity.***In Douglas-fir Mixed Conifer component without aspen as an overstory/understory the USFS commits to cutting all conifers < 4” DBH except for ponderosa pine. Due to the unit’s proximity to Unit 54 on a north aspect, this treatment would maintain continuity to that prescription and raise ladder fuels in the short term. Douglas-fir will provide generational diversity due to its abundant seeding capabilities on north slopes.***Possibility of some slash clearing. Particularly within the small clear cut that runs North-South in the Eastern part of the unit. Trade-off here is fire danger vs. animal cover.***We are not sure of this location or what is being described. Alex followed up with a follow-up email (6/24) to try and describe it better. We will have to evaluate further as part of a field trip or possibly a pin point can be put on a map to identify the location.***Possibility of some slash clearing. Another patchcut/clear area between South edge of the South East lobe of unit 80 and the private house.***The USFS cannot commit to this action because it is located within the Defensible Space buffers of the Forsythe II Project. Currently, the USFS does not have permission from the private landowner to implement in this buffer as identified in the DN.* **Possibility of some slash clearing. And a large patchcut running North East from North East part of unit (this does not show up well in Google Earth).***The USFS cannot commit to this action because it is located within the Defensible Space buffers of the Forsythe II Project. Currently, the USFS does not have permission from the two private landowners to implement in these buffers as identified in the DN.* **Area marked by Green Pin TB 4 “cut regen up to 2” DBH. Possibly leave some regen for generational diversity. Light ladder fuel thin 2” - 4” DBH.***(see above)***Do not cut:*** **Exclude rocky ridge area from any treatment, as defined by Teagen’s track and red pin TB 5.**

*USFS will retain trees along rocky ridge identified by Red Pins (TB 5).* |
| USFS Additions to MFG Proposal/Recommendations |
| **On north aspect, promote aspen where applicable and cut conifers up to 12” DBH except for limber pine (no cut).** |
| Final Decision: Guidelines Moved Forward |
| **In a conifer overstory/conifer understory setting, agreed to treat North aspects using the same agreements made for North aspects on Unit 54 and 55.****In aspen*** **Agree to cut 12” DBH conifers and below, except for limber pine (no cut)**
* **Agree to pile, but leave some component of woody debris for wildlife**
* **Need for clear understanding of boundaries surrounding aspen**

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**\*Overall it would be preferred to treat Units 54, 55, and 80 based on aspect with similar prescriptions for south and north facing slopes. The area falls under old growth development and in Unit 54, specifically old growth. Due to the nature of not utilizing mechanical equipment during implementation and the benefits of reducing stand density and transforming stand structure, instigating similar prescriptions and marking guidelines for manual treatment will maintain consistency across the area.**