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September 28, 2026

Umatilla National Forest Supervisor's Office
Attn: Blue Mountains Forest Plan Revision
72510 Coyote Road
Pendleton, OR 97801

Re: Blue Mountains Forest Plan Revision Draft Environmental Impact Statement
(EIS No. 20260077)

Dear Blue Mountains Forest Plan Revision Team,

Associated Oregon Loggers (AOL) appreciates the opportunity to comment on the Draft Environmental Impact Statement (DEIS) and proposed land management plans for the Malheur, Umatilla, and Wallowa-Whitman National Forests.

AOL represents about 1,000 member companies and the broader community of Oregon forest operators and loggers. Most member companies are small, family owned businesses. Our members support approximately 23,000 working families and provide much of the workforce and equipment needed to carry out timber harvest, road work, fuels treatments, reforestation, and other forest management across Oregon.

Our comments focus heavily on implementation. The revised plans need to answer two connected questions: what level of management is needed to move the Blue Mountains toward the desired conditions identified by the Forest Service, and whether the plans give agency and industry professionals enough flexibility and certainty to complete the work and build additional capacity over time.

The Forest Service's assessments identify substantial departures in forest density, species composition, structural stages, and fire regimes. The Forest Management and Timber Assessment also concludes that forest growth has substantially exceeded removals and that controlled removal is needed to move forests toward and maintain desired conditions.¹ These findings support a plan built around the scale of work needed on the landscape rather than the amount of work that can be completed with today's reduced staffing, contractor base, road condition, or processing capacity.

Oregon's 20 Year Landscape Resiliency Strategy uses the same basic approach. Its Capacity and Readiness goal calls for planning, implementation, and workforce capacity to become commensurate with the scale of wildfire risk reduction and landscape resilience treatments needed across Oregon.² The Wildland Fire Mitigation and Management Commission similarly recommended investment in workforce, wood processing capacity, longer term supply, and improved research to operations pathways.³ Those

frameworks recognize an important management principle: existing capacity describes current conditions, but sustained work can build future capacity.

Support for Alternative 2

AOL supports Alternative 2 as the basis for the final plans. Alternative 2 provides the larger active management program AOL believes is needed to address current forest conditions while maintaining greater flexibility for professional land managers to develop site specific treatments.

The first decade Projected Timber Sale Quantities under Alternative 2 are approximately 163.3 million board feet annually on the Malheur, 76.5 million on the Umatilla, and 124.6 million on the Wallowa-Whitman. Together, this is approximately 364 million board feet annually, compared with about 108 million board feet under Alternative 1.¹

AOL views this increase as an opportunity to rebuild the capacity needed to manage the Blue Mountains. A dependable federal timber program can support investment by forest operators and manufacturers while also giving the Forest Service a stronger commercial tool for accomplishing restoration work. Current contractor or mill capacity should not be used to determine how much management the landscape needs. Instead, the plan should provide a durable program around which capacity can grow.

This approach is also consistent with current federal direction. Executive Order 14225 directs the Forest Service to facilitate increased timber production and sound forest management while reducing timber delivery time and supply uncertainty.⁴ Executive Order 14308 directs federal agencies to strengthen wildfire prevention, improve forest health, and use risk informed approaches and modern technology.⁵ These orders remain subject to applicable law, but they reinforce the need for a plan that allows active management rather than adding unnecessary barriers to future implementation.

Purpose and Need

AOL agrees that changed forest conditions, wildfire risk, new science, and outdated plan direction support revision of the existing forest plans. The practical purpose of revision should be to establish a management framework capable of moving forests toward desired conditions and maintaining those conditions through future entries.

The analysis should also recognize that no action does not preserve current conditions. Trees continue to grow and die, fuels change, roads deteriorate, and disturbance continues whether a project is implemented or not. Project analysis should therefore compare proposed management with the reasonably expected future condition without treatment rather than treating the existing stand as a static baseline.

AOL recommends adding a forest wide management approach:

Proposed FW-FOR-MAPR-01

When evaluating treatment need and alternatives, consider the expected future condition without treatment. Analysis should account for likely changes in vegetation condition, disturbance risk, and access over the relevant planning period. Existing conditions should not be treated as static where available information indicates material change is likely.

This change would better align project analysis with the dynamic conditions already recognized throughout the DEIS.

Plan Components Should Balance Protection and Delivery

AOL is concerned about an imbalance in how plan components operate in practice. Restrictions are often written as standards that apply directly to future projects, while timber outputs and treatment accomplishments are commonly expressed as objectives or desired conditions. Under the 2012 Planning Rule, projects must comply with applicable standards. Guidelines allow somewhat more flexibility because a project may use another design that is equally effective in meeting the guideline's purpose.⁶

The practical effect can be a plan where restrictions are highly certain while delivery of the management program remains less certain. AOL recommends reserving standards for clear legal or resource protection requirements and using guidelines where different methods can produce acceptable outcomes. Objectives should provide measurable expectations for program delivery, and monitoring should identify why those objectives are or are not being accomplished.

Resource protection should also be distinguished from elimination of every measurable effect. Federal planning regulations require timber harvest to protect soil, watersheds, fish, wildlife, recreation, and other resources. They do not require every project to minimize each individual effect to the lowest technically possible level regardless of the consequences to the broader treatment.⁷

This distinction is important because forest management involves tradeoffs among resources and operating systems. A method that slightly reduces one measured effect may require more roads, create a worker safety concern, or make a treatment economically infeasible. Where several alternatives meet applicable standards, project teams should be able to consider the overall outcome.

AOL recommends adding:

Proposed FW-FOR-MAPR-02

When more than one treatment design can meet applicable standards and guidelines and move vegetation toward desired future conditions, evaluate the treatment as a whole. Consider ecological outcomes, worker safety, operational feasibility, and economic feasibility. A project need not select the method that minimizes one individual effect where another method adequately protects applicable resources and provides an equal or better overall management outcome.

This is the type of science based decision framework AOL believes will help the Forest Service manage more acres without weakening resource standards. A management approach like this will help ensure scalability of necessary treatments to meet the needs on the ground while supporting a vibrant industry to get it done.

Timber Program and Economic Sustainability

PTSQ and SYL Answer Different Questions

AOL believes the Final EIS should clearly distinguish Projected Timber Sale Quantity from Sustained Yield Limit.

PTSQ is the Forest Service's estimate of the timber sale program expected under the plan. Appendix D explains that PTSQ reflects management area direction, vegetation objectives, utilization standards, feasibility constraints, and disturbance assumptions. The DEIS also explains that PTSQ incorporates projected fiscal and organizational capacity and is not the type of maximum represented by the Allowable Sale Quantity used under the prior planning framework.

SYL answers a different question. From a growth and yield standpoint, SYL represents the long term productive capacity of the forest. It estimates the level of annual removal that can be maintained in perpetuity while remaining in balance with forest growth. The DEIS calculates SYL from lands that may be suitable for timber production and does not reduce the number based on today's fiscal or organizational capacity.

SYL is therefore not an annual timber target, and PTSQ should not be treated as the maximum these forests can support. PTSQ represents the program modeled under a particular set of management and implementation assumptions. As roads, sale prep capacity, contractors, and markets improve, the plans should leave room for accomplishments to increase while remaining consistent with long term forest productivity.

The difference between PTSQ and SYL is useful because it can show where long term biological capacity differs from the management program currently projected. Some of that difference results from multiple use direction and desired conditions. Some may also reflect implementation assumptions. The Final EIS should make these differences understandable rather than allowing PTSQ to become a de facto ceiling.

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AOL also recommends showing the likely management trajectory beyond the first two decades. Operators and processors making long term investments need to understand whether the first 20 years represent a temporary restoration pulse or a durable management program. A possible future change in timber output should not, however, be used as a reason to defer treatment warranted by current forest conditions.

Strengthen the Regular Timber Sale Program

FW-FORPROD-DC-01 states that suitable timberlands have a regularly scheduled timber harvest program and recognizes that harvest may also occur on lands not suitable for scheduled timber production where harvest serves other management purposes. AOL supports this direction but recommends making the relationship between the timber program and implementation capacity more explicit.

AOL recommends revising FW-FORPROD-DC-01 as follows:

FW-FORPROD-DC-01

Land classified as suitable for timber production has a regularly scheduled and dependable timber harvest program that contributes to ecosystem health while supporting local economic and forest management capacity. The program is consistent with long term sustained yield and is designed to implement the decadal timber program described in FW-FORPROD-OBJ-01. On land not suitable for timber production but available for timber harvest, timber harvest is used where appropriate to achieve other applicable desired conditions.

Add a General Forest Timber Desired Condition

The General Forest management area is expected to carry a substantial portion of the active management program, yet its desired conditions do not clearly describe this timber management function.

AOL recommends adding:

Proposed MA4-GENFOR-DC-03

The General Forest management area provides a dependable, sustained yield of timber and forest products to support local manufacturing infrastructure while achieving forest wide ecological desired conditions. On lands suitable for timber production, a regularly scheduled timber program contributes directly to achieving the decadal objectives in FW-FORPROD-OBJ-01.

Markets and Future Capacity

The Forest Service should not assume the current forest products economy will remain unchanged during the life of the plans. It also should not confuse current production with installed capacity. AOL member companies report idle logging and processing capacity within the Blue Mountains and the larger purchasing and operating circle extending into Idaho. Some mills are running fewer shifts or producing below the level their facilities were built to handle because dependable log supply is limited within an economical purchasing radius. This distinction matters because current output can understate the amount of existing infrastructure available to support a larger federal timber program.

Operating closer to installed capacity can materially change mill economics. A large share of a mill's capital and other fixed costs remains whether the facility processes a full shift or a partial one. Greater throughput spreads those costs across more production and can reduce manufacturing cost per MMBF. Oregon sawmills have historically operated below installed processing capacity, and research on Oregon mill performance shows meaningful differences in efficiency and output among mills using similar categories of capital and labor.¹⁰ A Forest Service wood products project in Pendleton also provides a local example of the relationship between federal timber supply, mill throughput, and investment. Blue Mountain Lumber Products reported relying heavily on Forest Service timber and invested in its headrig specifically to improve throughput as available log size changed.¹¹

The same underutilization occurs in the woods. AOL members regularly leave the Blue Mountains to fill their books and keep logging sides working. That keeps equipment moving and employees on payroll, but it adds mobilization and travel cost while taking skilled workers away from their home communities. A more dependable local timber program would allow existing logging capacity to spend more of the year working in the region where the equipment, employees, and businesses are already based. The issue is therefore not only whether future capacity can be built. Better federal timber supply can first make better use of capacity that already exists.

Product mix is equally important. A mill may technically be capable of accepting a small diameter log without being economically designed to operate on a steady diet of small material. AOL members report that many regional facilities perform best when the average log mix includes enough larger material to maintain efficient throughput and produce the products around which the mill was designed. Forest Service research has long recognized that log diameter affects gross product value at sawmills, veneer plants, and chip facilities, and research on western sawmills has found that very small sawtimber can be difficult to harvest, deliver, and manufacture profitably.¹²

Larger pieces also improve efficiency in the woods and at the mill. Harvesting research has found that unit production cost generally declines as tree size increases because more volume is handled with each tree.¹³ In veneer manufacturing, log diameter affects volume, grade, and value recovery.¹⁴ These relationships do not mean every large tree should be removed. They mean timber sale economics cannot be evaluated from total volume alone. Piece size and product mix affect logging cost, mill recovery, and the amount of commercial value available to help carry lower value restoration work.

This is especially important where the Forest Service expects commercial harvest to help accomplish thinning and fuels work. A sale dominated by very small material may contain substantial volume but still

fail to produce the product mix needed to make the operation economical. Where consistent with the silvicultural prescription and applicable resource standards, the Forest Service should retain flexibility to include appropriate larger, younger trees so the overall sale can support treatment of lower value material.

Petitmermet, Fried, and Sessions found that a paying market for small diameter material increased the acreage where modeled dry forest restoration treatments could cover costs.⁸ A 2026 study by Khanal and colleagues examined the Malheur, Umatilla, and Wallowa-Whitman National Forests and evaluated the use of small diameter restoration material in mass timber manufacturing.⁹ These studies show why current market conditions should not become permanent plan constraints. A dependable timber program can improve use of existing capacity while also supporting investment in new products and processing.

AOL recommends revising FW-FORPROD-DC-02 to make it more actionable:

FW-FORPROD-DC-02

Timber and other forest product outputs are sufficiently dependable to support effective use and growth of the workforce, processing infrastructure, and markets needed to implement the land management plan. The timber program supports utilization of existing capacity and provides enough supply certainty for additional investment as management needs increase.

This language better reflects the relationship between a functioning forest products sector and the Forest Service's ability to accomplish work.

Forest Structure and Silviculture

Manage the Full Range of Structural Stages

The DEIS provides a strong basis for managing the full range of forest structure. FW-FOR-STR-DC-01 states that the full spectrum from young to old stands should be represented. Table 40 establishes desired ranges for stand initiation, stem exclusion, understory reinitiation, and old forest conditions. For dry upland forests, for example, the desired range includes 15 – 30% stand initiation and 10 - 20% stem exclusion.

AOL believes the implementation direction should more clearly reflect this full range. Detailed plan direction is provided for old forest, while early and mid-seral conditions receive less attention even though they are explicitly part of the desired landscape.

Ecological integrity does not mean continually moving every acre toward an older structural condition. Early, mid, and old structural stages each have a place within the range identified by the plan. Where a structural stage is underrepresented, active management may be needed to create or maintain it.

AOL recommends adding:

Proposed FW-FOR-STR-OBJ-01

Implement vegetation treatments that reduce departure from the structural stage ranges in Table 40. Where early or middle structural stages are below their desired range, create or maintain those conditions where ecologically appropriate. Where old forest conditions are below their desired range, maintain or recruit those conditions. Evaluate progress by potential vegetation group at the scale identified for FW-FOR-STR-DC.

AOL also recommends revising FW-FOR-STR-MAPR-01:

FW-FOR-STR-MAPR-01

During project analysis, compare existing structural conditions with the desired ranges in Table 40 and identify stages above or below the desired range. Use this information to inform treatment need and design across the full structural spectrum.

This direction would make Table 40 more than a descriptive display. It would make all structural stages relevant to treatment planning and monitoring.

Large Trees, Old Trees, and Large Old Trees

AOL supports protecting ecologically important old trees while maintaining the distinction between tree age and tree diameter. The DEIS itself recognizes that old and large are not synonymous.

Regional research supports this distinction. The Forest Service's review of the Eastside Screens found that large and old trees have important ecological values while also documenting advances in understanding age, species composition, and restoration since adoption of the original 21 inch rule.¹⁵ Research in eastern Oregon has likewise shown that fixed diameter limits can interfere with restoration of desired density and species composition in some mixed conifer stands.¹⁶

The final plans should allow professional foresters to account for age, species, stand condition, and landscape context rather than restoring a simple diameter proxy. AOL therefore supports Alternative 2's more flexible large and old tree direction and does not support incorporating Alternative 3's additional diameter guideline.

A guideline still has practical effects even where exceptions exist. It influences prescription development, marking, project analysis, and merchantable volume. The availability of an exception on paper does not mean a project team will repeatedly use it until the resulting treatment resembles Alternative 2.

Tree size also has a practical relationship with the economics of restoration. A large tree and a small tree regardless of age do not contribute the same amount of merchantable volume or product value to a timber sale. Forest Service research has documented the strong relationship between tree or log diameter

and the value recovered from wood products, while harvesting studies show that very small trees generally cost more per unit of wood to fall, process, and transport.^{12, 13} This means that retaining every larger tree regardless of age, species, or stand function can remove disproportionate economic value from a sale while leaving the operator with the most costly material to handle.

The purpose of this flexibility is not to harvest old trees for economic reasons. It is to avoid using diameter as a proxy for ecological value when the silvicultural prescription may call for removal of larger trees. Including some larger merchantable material can help carry the cost of removing smaller trees and completing associated restoration work while also improving utilization at local mills across the working circles of the Blues. This relationship should be considered when the Forest Service evaluates diameter based restrictions and project economics.

Plan direction for old forest landscapes should not preclude thinning needed to maintain desired conditions. As additional old forest acreage is recruited and landscape objectives are met, managers should retain flexibility to use regeneration harvest or overstory removal in appropriate stands to maintain the desired mosaic of structural stages, provided those treatments remain consistent with applicable landscape level desired conditions.

Soil Protection and Forest Operations

Remove the 35% Slope Trigger

AOL recommends deleting the 35% slope trigger from FW-SOIL-GDL-01.

FW-SOIL-STD-02 already provides the relevant resource outcome by requiring at least 80% of an activity area to remain in acceptable soil quality condition. FW-SOIL-GDL-01 then correctly states that ground based equipment should operate on slopes for which it is designed but adds a separate requirement for site specific analysis above 35% slope.

AOL does not believe 35% is a meaningful universal breakpoint for modern forestry equipment or soil protection. Machine design varies substantially, and current Oregon safety rules recognize equipment specific differences. Oregon OSHA establishes default limits of 40% for several tracked machines and 50% for other forestry equipment designed for steep slopes unless the manufacturer specifies otherwise. The rule also allows limited operations beyond those values where machine, operator, soil, and operating conditions have been considered.¹⁷

Oregon's Forest Practices rules also take a site based approach to ground based operations. Their additional steep slope provisions generally apply above 60% slope, or above 40% on certain highly erodible materials.¹⁸ These state rules do not govern federal land management, but they show that a 35% line is not a generally accepted technical breakpoint for safe or environmentally responsible mechanized logging.

Current machine design reinforces this point. For example, John Deere's 959M leveling feller buncher provides a 26 degree forward leveling envelope, approximately a 49% grade, as well as a slope monitoring system.¹⁹ A leveling envelope should not be treated as a universal operating limit, but it

demonstrates why equipment design and manufacturer guidance are more informative than a single forest plan slope number.

Research also demonstrates that slope alone is a poor predictor of soil response. Zamora-Cristales, Adams, and Sessions studied ground based thinning units averaging 65% and 58% slope and found no clear relationship between trail slope and soil strength within the operations studied. Dry conditions, limited machine passes, slash, and equipment characteristics were important factors controlling disturbance.²⁰

Equating slope percentage directly to soil degradation is technically outdated. Modern tether-assisted and specialized leveling equipment routinely operate on steep terrain while remaining fully compliant with soil protection standards and requirements. While performance outcomes must govern soil protection, operational guidance for project teams should explicitly recognize that modern ground based equipment can operate on slopes up to 50% (and up to 60% when tethered) without requiring project specific plan amendments. As noted, there is research indicating these new modern machines can realistically operate on steeper slopes without issue. As long as there is flexibility for equipment to operate within manufacturer recommendations and the operation can meet the adopted soil quality standards, it should be allowed.

AOL recommends replacing FW-SOIL-GDL-01 with:

FW-SOIL-GDL-01

To maintain soil productivity and function, ground based mechanical equipment should be operated on terrain and under conditions consistent with manufacturer operating instructions and applicable worker safety requirements. Logging system selection should account for site conditions and machine design necessary to meet FW-SOIL-STD-01 and FW-SOIL-STD-02. Slope percentage alone should not trigger an additional plan level equipment restriction or analysis requirement.

This approach ties equipment use to the machine, the site, and the soil outcome rather than an arbitrary slope threshold. This approach also requires professional staff to talk to operators and understand the capabilities of the logging systems in the local area. As logging systems improve and innovation occurs, it is more important to allow flexibility and the use of new technology where appropriate. If not, the agency may be arbitrarily limiting operations, bidders, and contractors from working on their lands.

Clarify the Purpose of Project Specific Soil Criteria

AOL also recommends revising FW-SOIL-STD-03. Project specific design features are appropriate where they address an identified soil or water quality risk, but they should not become a vehicle for prescribing one logging system when several systems can meet the adopted soil standard.

AOL recommends:

FW-SOIL-STD-03

Project specific best management practices and soil design features must be incorporated as necessary to meet FW-SOIL-STD-01, FW-SOIL-STD-02, and applicable water quality requirements. Equipment specific restrictions must identify the resource risk they address and should not prescribe a particular logging system where multiple systems are expected to meet applicable resource protection requirements.

This would maintain the 80% acceptable condition requirement while giving project teams more flexibility in how they achieve it.

Distinguish Minimum Protection from the Lowest Measured Effect

The Forest Service should distinguish between compliance with a protective threshold and selection of the system producing the lowest measured disturbance. If several logging systems meet FW-SOIL-STD-02, the agency should retain the ability to consider safety, total disturbance, and operational feasibility when selecting among them.

For illustration, one system producing 4% detrimental disturbance does not by itself make a second system producing 8% unacceptable where both remain well below the applicable 20% ceiling and no other site specific problem is identified. The difference should be considered, but so should the broader effects of the logging side.

Research supports this performance based approach. Chung and colleagues' 2026 Oregon study found that tether assisted machine felling on slopes greater than 30% did not produce greater negative soil effects than the hand felled comparison under the conditions studied.²¹ Earlier Oregon research on steep ground likewise demonstrated that modern machines can operate on steep slopes while keeping soil effects within applicable plan guidelines when operating conditions and traffic are appropriately managed.²⁰

Current Oregon State University work by grad student, Parker Turk, is also relevant to this question. AOL understands that his Blue Mountains research may seem to indicate that cut-to-length configurations generally produced the lightest disturbance among the systems evaluated, however other tethered ground based configurations also maintained soil conditions below applicable detrimental disturbance thresholds.²²

The useful management question is not simply which machine produced the least effect. The more important question is which logging systems meet the soil standard in the plan, and which system provides the best overall fit for the treatment and access to the largest contractor pool in the local working circle.

Preserve a Broad Contractor Pool

Logging system requirements can directly affect bidder depth. A sale written around one specialized machine may exclude otherwise qualified operators whose equipment could meet the same soil standard.

AOL believes this is especially important in a region where implementation capacity needs to grow. Plan direction should encourage more compliant ways to complete work rather than narrow the available contractor pool without a demonstrated resource need.

Steep slope research describes a range of tethered and cable assist configurations rather than one universal system.²³ The plans should remain flexible enough to accommodate advances in machines and operating techniques over their life.

Worker safety should also remain part of this analysis. Restricting mechanized access can move work to timber fallers or other workers on steep ground. Research on mixed hand and tethered machine operations has documented this transfer of exposure.²⁴ A project design should not treat soil, safety, and feasibility as unrelated questions.

Forest Engineering and Transportation

The DEIS appropriately recognizes the transportation system as infrastructure supporting forest management and wildfire operations. FW-TRSPT-OBJ-01, however, measures road maintenance only by miles completed.

Miles maintained do not necessarily show whether the transportation system needed for the management program is usable. A bridge restriction or failed road segment may prevent access to a large treatment area even when the Forest meets its annual road maintenance mileage.

AOL recommends adding the following sentence to FW-TRSPT-DC-01:

Proposed addition to FW-TRSPT-DC-01

Priority transportation infrastructure needed for planned forest management and wildfire response is serviceable for its intended management use.

AOL also recommends adding:

Proposed FW-TRSPT-OBJ-03

Maintain, reconstruct, or improve priority transportation infrastructure needed to implement the vegetation, wildfire, and timber objectives in the plan. Each Forest should identify access constraints that materially limit planned treatment and incorporate those needs into annual and multi-year work programs.

The final plan should also distinguish between road maintenance, reconstruction, and temporary access. These actions have different purposes and long term effects and should not be treated as interchangeable.

AOL recommends:

Proposed FW-TRSPT-MAPR

When evaluating access for forest management, distinguish between maintenance or reconstruction of existing infrastructure and new access. Temporary access should be evaluated according to the management need and the expected condition after use, including closure or rehabilitation where appropriate.

This distinction is particularly important where current access is poor. A road problem should be treated as an infrastructure problem to solve rather than evidence that needed management should not occur.

Roads also have wildfire response value. Thompson, Gannon, and Caggiano found that roads frequently aligned with operational boundaries identified by fire managers, illustrating the role existing road networks can play in suppression planning.²⁵ This does not mean every road should remain open or every road should remain on the permanent system. It means transportation should be evaluated as working infrastructure as well as a source of environmental effects.

Riparian Management Areas

RMA's Should Be Actively Managed Where Conditions Require It

Alternative 2 appropriately recognizes active management as a tool for maintaining or restoring RMA vegetation. AOL recommends making the purpose of that management clearer.

Riparian forests are affected by the same disturbance processes that affect surrounding forests. Excessive density or altered species composition can affect stand resilience, while insects, drought, and wildfire can alter long term riparian function. Active silviculture may therefore be needed to sustain the vegetation conditions that riparian standards are intended to protect.

AOL recommends making clear in Alternative 2 that RMAs are management areas rather than presumptive no treatment areas. Resource protection should increase near sensitive aquatic features, but RMA designation alone should not create a presumption against management. Agency staff should evaluate commercial thinning when adjacent to upland units that are being treated. There are efficiencies when equipment and operators will already be in place. Agency staff should evaluate commercial treatment in RMAs when adjacent upland units are being treated, and RMA conditions warrant management. Coordinating treatment with an existing operation can reduce mobilization cost and avoid delaying needed work until another timber sale happens to occur in the area.

AOL recommends revising MA3A-RMA-OBJ-01:

MA3A-RMA-OBJ-01

Maintain or restore riparian management area vegetation through active management, including commercial or noncommercial silviculture where appropriate. Treatments should move RMAs toward desired vegetation and disturbance conditions while meeting applicable aquatic and riparian standards. Retain the Alternative 2 acreage objectives for each National Forest.

AOL also recommends broadening MA3A-RMA-MAPR-02:

MA3A-RMA-MAPR-02

To support long term riparian function, consider silvicultural practices and timber harvest that reduce wildfire or insect risk, restore appropriate forest composition and structure, and improve resilience to future disturbance.

This wording focuses the component on the forest condition the agency is trying to achieve rather than limiting silviculture to one management purpose.

Keep RMA Operating Methods Flexible

The proposed RMA guidelines contain useful flexibility by using terms such as “such as but not limited to” when describing protective operating methods. AOL asks the Forest Service to preserve that flexibility during implementation.

Full suspension or frozen ground operation may be appropriate in some locations. Other sites may be better served by a different compliant logging system. The project team should evaluate total effects rather than assume an example listed in a guideline is the required method.

AOL recommends adding:

Proposed MA3A-RMA-MAPR

Where more than one logging or treatment system can meet applicable riparian standards, evaluate the operation as a whole. Consider resource effects, worker safety, access, and operational feasibility. A method should not be preferred solely because it minimizes one individual effect where another method adequately protects riparian function and produces an equal or better overall result.

This would bring the RMA direction into the same outcome based framework recommended for soils.

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Forest Opening Size

AOL recommends substantially revising FW-FORPROD-STD-06.

The current provision establishes 40 acres as the normal maximum for even aged and two aged regeneration openings, with a separate process for larger openings. AOL does not believe 40 acres should become a default treatment size or practical ceiling.

The regulatory source should be clearly explained. Under 36 CFR 219.11(d)(4), forest plans allowing even aged regeneration must include maximum opening size standards. The rule generally establishes 40 acres for forest types not otherwise specified and 60 acres for Douglas-fir forest types in Oregon, Washington, and California. It also allows plan standards to authorize larger openings when they are needed to achieve desired ecological conditions, provided the plan identifies the conditions and establishes an applicable maximum.⁷

A numeric limit written into a plan can easily become a de facto project target or ceiling even when the regulation provides flexibility. Project teams may split a biologically coherent treatment into smaller administrative units simply to avoid additional review.

The DEIS itself recognizes that larger and more frequent early seral openings may be needed to meet desired conditions involving forest structure, patch size, and resilience. This is consistent with Inland Pacific landscape research. Hessburg and colleagues describe historical fire prone landscapes as heterogeneous at several spatial scales, including variable successional patches created by interacting disturbance and topography.²⁶

The appropriate maximum should provide enough room for treatment size and configuration to reflect natural disturbance patterns, desired structural conditions, and project feasibility rather than making the regulatory default the normal layout rule. Larger coherent treatments may be both ecologically appropriate and more economical to operate because harvest unit size affects mobilization, production, and other fixed costs. Harvest unit size is a documented factor affecting logging cost and productivity.²⁷ Small volume operations carry fixed mobilization and setup costs regardless of how much timber is removed, which is one reason small or fragmented treatments can become uneconomic.²⁸

Opening size and logging unit size are not identical concepts, but they interact during project layout. Artificially dividing one regeneration treatment may require additional setup or reduce the merchantable volume available to help carry surrounding restoration work. In some cases, a larger opening may therefore achieve an appropriate ecological pattern while making the larger project more practical to implement.

AOL's concern is not maximizing opening size. The issue is whether the treatment achieves the desired ecological condition and remains operationally and economically feasible.

AOL recommends revising FW-FORPROD-STD-06:

FW-FORPROD-STD-06

Openings created through even aged or two aged regeneration harvest must comply with 36 CFR 219.11(d)(4). Within those legal requirements, opening size and configuration should be based on the desired ecological condition, silvicultural prescription, and landscape context. The maximum established to satisfy the regulation should be treated as an outside legal boundary rather than a preferred treatment size or planning target. Where larger openings are needed to achieve desired ecological conditions, the Forest Service should use the plan level and individual sale authorities provided by 36 CFR 219.11(d)(4) while considering treatment effectiveness and feasibility (operational and economic) simultaneously.

AOL would prefer the final plan to avoid repeating an acreage number where the regulation can be incorporated by reference. If a numeric maximum must appear in the plan, the Final EIS should explain the scientific basis and make clear that the number is not the expected size of future treatment units.

Revise the “Most Appropriate” Standard

FW-FORPROD-STD-07 allows even aged regeneration only where the method is determined to be the “most appropriate” for vegetation, wildlife habitat, scenery, and other resources. AOL believes this wording creates an unnecessary optimization test.

A silvicultural method can be appropriate, consistent with all applicable resource standards, and useful for creating needed structural conditions without demonstrating that it is the single most appropriate method for every resource considered.

AOL recommends:

FW-FORPROD-STD-07

Even aged regeneration harvest may be used where a silvicultural prescription determines that the method is appropriate to achieve applicable vegetation desired conditions and the treatment is consistent with other applicable plan components. The rationale must be documented in the project record.

This retains interdisciplinary review while avoiding a superlative test that may be difficult to apply consistently.

Wildfire, Fuels, and Post-Disturbance Management

Strengthen Planned Wildfire Mitigation

Alternative 2 establishes a significant fuels treatment program. FW-WF-OBJ-01 calls for 400,000 acres per decade on the Malheur and 250,000 acres each on the Umatilla and Wallowa-Whitman. The existing objective allows both planned treatments and natural fire to contribute to the objective.

AOL supports the scale of the objective but recommends separating planned treatment from wildfire effects. Wildfire can sometimes move vegetation toward desired conditions, but wildfire acreage does not show whether the Forest Service delivered the management program described by the plan.

AOL recommends revising FW-WF-OBJ-01:

FW-WF-OBJ-01

Treat hazardous fuels through planned silvicultural, mechanical, and prescribed fire treatments, including initial and maintenance entries. Retain the Alternative 2 acreage objectives for each National Forest. Acres affected by unplanned wildfire should be evaluated for ecological effects but reported separately from accomplishment of this planned treatment objective.

This distinction would improve accountability without denying the ecological role of wildfire.

AOL also recommends adding:

Proposed FW-WF-DC-03

Previously treated landscapes are maintained at intervals appropriate to vegetation growth and fuel accumulation so that prior investments continue to influence expected fire behavior.

The existing objective recognizes both initial and maintenance treatments, but the plan would benefit from a desired condition explaining why repeated treatment is necessary.

Agee and Skinner describe the basic fuel treatment principles of reducing surface fuels and excessive crown density while increasing crown base height and retaining appropriate fire resistant trees.²⁹ These outcomes often require a combination of mechanical treatment and prescribed fire rather than reliance on a single tool. Maintenance should include commercial treatments and mechanical removal where viable. The reality is that commercial harvest can create a significant scale benefit compared to costly noncommercial treatments like prescribed fire. In order to support the industry and contractor capacity in the region, a focus must be given to commercial operations. Where commercial treatment can meet resource objectives and offset implementation costs, it should be used to increase the scale of work. Noncommercial treatment should be targeted where it is needed to achieve outcomes commercial

treatment cannot. This is especially important in landscapes like the Blues where noncommercial work can cost as much as \$5000/acre. Generally, noncommercial treatments can carry substantial per-acre costs, which can sharply limit the acreage that available funding can treat. Where a more expensive noncommercial treatment provides only a marginal additional ecological benefit, the Forest Service should consider whether a commercially supported treatment that meets applicable resource standards can be implemented across substantially more acres. Favor scale and adequate ecological benefit over maximum benefit and minor scale.

Give Salvage and Post-Disturbance Management Greater Direction

AOL believes FW-FORPROD-DC-05 needs significantly stronger direction. The DEIS currently states that salvage harvest is used, where compatible with ecological desired conditions, to supplement the scheduled timber program and recover economic value following disturbance. The Forest Products standards separately recognize salvage and sanitation harvest following catastrophic disturbance.

Disturbance creates a time sensitive management problem. Timber value can decline quickly, reforestation needs arise, and roads may require restoration. A plan designed around increasing disturbance should provide a clear framework for prompt evaluation of post-disturbance management.

AOL recommends revising FW-FORPROD-DC-05:

FW-FORPROD-DC-05

Following significant wildfire, insect mortality, or other disturbance, salvage and sanitation harvest are evaluated promptly and used where compatible with applicable desired conditions. These treatments recover usable wood while supporting timely restoration, reforestation, and future forest management. Salvage and sanitation volume supplements rather than replaces the regularly scheduled timber harvest program.

This direction would make post-disturbance response part of the management system rather than an ad hoc decision after each event. However, we also encourage the agency to consider a specific timeframe. “promptly” and “timely” are up for interpretation. Post-fire timber begins losing product value quickly, and deterioration can become substantial within the first several years depending on species, fire damage, climate, and site conditions. Blue stain, checking, wood borer damage, and decay progressively reduce the material available for higher value products. For this reason, salvage analysis and decision making are time sensitive.³⁰ To prevent rapid wood deterioration and value loss, AOL recommends incorporating a Forest Wide Management Approach (FW-FORPROD-MAPR) directing agency staff to prioritize post-disturbance assessments and target signed NEPA decisions within 120 days of fire containment.

AOL recommends adding:

Proposed FW-FORPROD-MAPR

Following significant disturbance, begin post-disturbance assessment as soon as safe access allows. Evaluate time sensitive opportunities for wood recovery and restoration while considering reforestation need, future fuel condition, and the declining value of damaged timber. Prioritize post-disturbance assessments and target signed NEPA decisions within 120 days of fire containment.

Inventoried Roadless Areas and Recommended Wilderness

AOL does not believe treatment need in Inventoried Roadless Areas should be assumed away because a non-spatial model can identify equivalent acreage somewhere else. Treatment acres are not interchangeable where location influences wildfire behavior, treatment continuity, or adjoining ownerships.

Roadless classification is also not a measure of forest health. It does not tell the Forest Service whether a stand is overstocked or whether disturbance risk is high. Where management is legally allowed, the plan should preserve the ability of local managers to evaluate the condition of the stand and the access needed to treat it.

The same reasoning applies to road access. Reconstruction of an existing road is not equivalent to construction of a new permanent road, and temporary access does not create the same long term condition as a permanent road. Project analysis should distinguish among these tools based on their actual effects and future use.

Alternative 3 also proposes approximately 34,000 acres of recommended wilderness, including lands that would otherwise remain available for timber harvest or mechanical treatment. AOL supports Alternative 2's decision not to recommend these additional acres. The effects analysis should consider not only acreage inside a designation but also the effects on access and treatment continuity across the surrounding landscape.

Monitoring and Adaptive Management

The DEIS describes monitoring as a tool for testing assumptions, measuring management effectiveness, and informing adaptive management. The current program includes useful ecological measures, but AOL believes it needs a stronger connection between desired conditions and actual program delivery.

MON-ECON-01 currently asks what volume of sawtimber and other wood products the Forest is offering. Offered volume is useful, but it does not show whether the program becomes completed management. A sale can be offered and still receive no bid, require redesign, or remain unharvested.

AOL recommends revising MON-ECON-01:

Revised MON-ECON-01

Is the Forest implementing the timber program described in FW-FORPROD-OBJ-01, and what factors materially affect delivery?

Indicators: volume planned, offered, sold, and harvested; treatment acreage completed; and recurring implementation constraints.

The monitoring program should also better connect Table 40 to the full range of structural stages:

Proposed MON-FOR-05

Are forest structural stages moving toward the desired ranges identified in Table 40?

Indicators: acres and percentage in early, middle, and old structural conditions by potential vegetation group, including changes caused by management and disturbance.

Wildfire monitoring should separately report planned management and unplanned wildfire:

Revised MON-WF-01

How many acres of planned fuels and vegetation treatments were completed, and how did those treatments contribute to desired conditions?

Report wildfire acreage separately and use MON-WF-02 to evaluate treatment effectiveness where wildfire encounters treated areas.

AOL also recommends adding a transportation measure:

Proposed MON-TRSP

Is the priority transportation system capable of supporting planned forest management and wildfire response?

Indicators: significant access constraints, condition of priority infrastructure, and management delayed because access was not serviceable.

These measures are intentionally focused. Monitoring should help managers diagnose why the program is or is not being delivered rather than generate more data without a clear management response.

If access is the limiting factor, the appropriate response is to address access. If repeated no bid sales identify a marketability or design problem, the agency should determine the cause. Monitoring should support correction of implementation problems rather than automatically reduce future treatment objectives to match current constraints.

Research and Adaptive Implementation

AOL supports stronger connections among Forest Service Research and Development, universities, land managers, and forest operators. Research is most useful when it answers questions that repeatedly affect management decisions.

Ecological research remains essential, but managers also need information about treatment feasibility. Soil monitoring should help determine which logging systems meet adopted standards. Forest engineering research should help identify workable treatment designs. Economic research should help determine when commercial value can help carry restoration work.

AOL recommends adding:

Proposed FW-RES-MAPR

Coordinate with research institutions and practitioners to evaluate recurring management uncertainties and new technology. Where research or monitoring demonstrates that a treatment or operating method meets applicable plan standards, incorporate that information into future project design and implementation guidance.

A long lived forest plan should not lock future projects into assumptions based on today's equipment. The plan should define the resource outcome and allow management methods to improve as science and technology improve.

Conclusion

AOL supports Alternative 2 and asks the Forest Service to retain its higher active management and timber program while making the final plan more directly implementable.

The Forest Service's own analysis identifies a substantial need to change forest conditions. The plan should therefore establish meaningful treatment and timber objectives while avoiding unnecessary restrictions that make those objectives harder to achieve. Standards should protect important resource conditions, but methods that meet those standards should remain flexible enough to account for site conditions and advances in technology.

AOL specifically recommends strengthening the regularly scheduled timber program, providing balanced direction for the full range of structural stages, and giving post-disturbance management substantially more emphasis. AOL also recommends removing the 35% slope trigger, revising the opening size standard so its regulatory maximum does not become a project target, and improving monitoring of actual program delivery.

These recommendations share a common principle. Good forest management requires clear resource protection and enough practical flexibility to accomplish needed work at meaningful scale. The best available science should help establish what level of protection is necessary and whether a treatment meets it. Once those requirements are met, agency professionals should be able to consider the whole management outcome rather than optimize one resource in isolation.

The same principle applies to economic capacity. Today's contractor base, road condition, processing infrastructure, and agency staffing are not fixed characteristics of the Blue Mountains. A dependable program of work can support investment and rebuild capacity over time. The final plans should be written around the forest conditions that need to be achieved and maintained, while giving the public and private sectors enough certainty to build the capacity needed to do the work.

Thank you for considering these comments and the experience of Oregon's forest operators.

Sincerely,

A handwritten signature in black ink, appearing to read 'Amanda Sullivan-Astor', with a long horizontal line extending to the right.

Amanda Sullivan-Astor, CF

Forest Policy Manager

Associated Oregon Loggers, Inc.

Footnotes & References

1. USDA Forest Service. 2026. *Draft Environmental Impact Statement, Blue Mountains Forest Plan Revision*, including the Forest Products analysis, Appendix D timber analysis, forested vegetation analysis, and Alternative 2 plan components. The DEIS identifies the Alternative 2 PTSQs and distinguishes PTSQ from the prior Allowable Sale Quantity framework.
2. Oregon Department of Forestry. *Oregon's 20 Year Landscape Resiliency Strategy*. Goal 4 calls for collaborative planning and implementation capacity and workforce capacity to become commensurate with the scale of wildfire risk reduction and landscape resilience treatments needed in Oregon.
3. Wildland Fire Mitigation and Management Commission. 2023. *ON FIRE: The Report of the Wildland Fire Mitigation and Management Commission*. U.S. Department of Agriculture.
4. Executive Order 14225. 2025. *Immediate Expansion of American Timber Production*. March 1, 2025.
5. Executive Order 14308. 2025. *Empowering Commonsense Wildfire Prevention and Response*. June 12, 2025.
6. 36 CFR 219.15(d), consistency of resource plans and projects with the land management plan.
7. 36 CFR 219.11(d). The regulation addresses timber harvest resource protection, even aged regeneration, and opening size requirements. It allows plan level exceptions for larger openings where necessary to achieve desired ecological conditions.
8. Petitmermet, Joshua H.; Fried, Jeremy S.; Sessions, John. 2019. "Estimating biomass availability and cost when implementing forest restoration with tethered harvest systems." *Journal of Forestry* 117(4):323-339.
9. Khanal, Naresh; Chung, Woodam; Hogland, John S.; Chen, Yong; Susaeta, Andres. 2026. "Economic impacts of mass timber production using small-diameter wood from fuel reduction and restoration treatments in eastern Oregon." *Trees, Forests and People* 26:101417.
10. Sun, Changyou; Marcille, Kate C.; Daniels, Jean M. 2021. "A Performance Analysis of Sawmills in Oregon from 2003 to 2017." *Forest Science* 67(4):398-411. DOI 10.1093/forsci/fxab007. The study evaluated Oregon sawmill inputs, capacity, production, and operating efficiency and found substantial variation in utilization and technical efficiency among mills.
11. USDA Forest Service, Wood Innovations Program. Replacing and Upgrading Head-Rig Scanner System, Blue Mountain Lumber Products, Pendleton, Oregon. The Forest Service project record states that the mill relied on Forest Service timber for about 80 percent of its log supply, that average sawlog size had declined, and that investment in the large log headrig was expected to increase log consumption by approximately 15 percent and lumber production by approximately 20 percent.
12. Barbour, R.J. 1999. "Relationship between diameter and gross product value for small trees." *Wood Technology and Miller Freeman* 27:40-46; Wagner, Francis G.; Keegan, Charles E.; Fight, Roger D.; Willits, Susan. 1998. "Potential for small-diameter sawtimber utilization by the current sawmill industry in western North America." *Forest Products Journal* 48(9):30-34. Barbour used Forest Service recovery data to evaluate the effect of log size on gross product value at sawmills, veneer mills, and chip mills. Wagner and colleagues found that very small sawtimber created significant harvest, delivery, and manufacturing economic challenges in western mills.
13. Holtzsch, Matthew A.; Lanford, Bobby L. 1997. "Tree Diameter Effects on Cost and Productivity of Cut-to-Length Systems." *Forest Products Journal* 47(3). Across the harvesting systems evaluated, tree size had a significant effect on unit cost, with unit cost declining as tree size increased.
14. Fahey, Thomas D.; Willits, Susan A. 1991. *Veneer Recovery of Douglas-Fir from the Coast and Cascade Ranges of Oregon and Washington*. PNW-RP-439. USDA Forest Service, Pacific Northwest Research Station. The research evaluates veneer volume, grade, and value recovery by log diameter and notes that veneer recovery is particularly sensitive to log diameter.

15. Hessburg, Paul F.; Charnley, Susan; Wendel, Kendra L.; et al. 2020. The 1994 Eastside Screens Large-Tree Harvest Limit: Review of *Science Relevant to Forest Planning 25 Years Later*. PNW-GTR-990. USDA Forest Service, Pacific Northwest Research Station.
16. Johnston, James D.; Greenler, Skye M.; Miller, Becky A.; et al. 2021. "Diameter limits impede restoration of historical conditions in dry mixed-conifer forests of eastern Oregon, USA." *Ecosphere* 12(3).
17. Oregon OSHA. OAR 437-007-0935, *Operation of Ground Skidding Machines and Vehicles*. The rule establishes equipment specific slope provisions unless manufacturer specifications provide otherwise.
18. Oregon Department of Forestry. 2026. Oregon Forest Practices Rules, OAR 629-630-0100 and OAR 629-630-0150. The rules use equipment and site conditions to govern ground based harvesting and establish additional provisions for specified steep or erosion prone slopes.
19. Deere & Company. John Deere 959M Tracked Feller Buncher specifications. The 959M leveling configuration provides a 26 degree forward leveling envelope and an available slope monitoring system. The leveling envelope is cited as evidence of modern machine design, not as a universal operating limit.
20. Zamora-Cristales, Rene; Adams, Paul W.; Sessions, John. 2014. "Ground-Based Thinning on Steep Slopes in Western Oregon: Soil Exposure and Strength Effects." *Forest Science* 60(5):1014-1020. The study examined units averaging 65% and 58% slope and found that operating conditions and machine traffic were important to soil effects.
21. Chung, Woodam; Reuter, Ronald J.; Morrisette, Brett A.; et al. 2026. "Impacts of Tethered Logging Equipment on Soil Compaction, Moisture and Seedling Growth." *Forest Science* 72:279-304.
22. Parker Turk, Oregon State University graduate research concerning forest soils and harvesting operations in the Blue Mountains. AOL understands the ongoing work to include comparison of modern harvesting configurations on ash capped soils. Because a final publicly available comparative thesis or peer reviewed publication has not been located, AOL recommends that the Forest Service coordinate directly with Oregon State University and consider the completed research when available.
23. Holzfeind, Thomas; Visser, Rien; Chung, Woodam; Holzleitner, Franz; Erber, Gernot. 2020. "Development and Benefits of Winch-Assist Harvesting." *Current Forestry Reports* 6:201-209; Green, Preston Q.; Chung, Woodam; Leshchinsky, Ben; et al. 2020. "Insight into the Productivity, Cost and Soil Impacts of Cable-Assisted Harvester-Forwarder Thinning in Western Oregon." *Forest Science* 66(1):82-96.
24. Pokharel, Mandira; Belart, Francisca; Chung, Woodam; Morrisette, Brett. 2023. "Assessment of timber faller working conditions in mixed hand and tethered-machine cut harvest units on steep slopes." *International Journal of Forest Engineering* 34(3):408-416.
25. Thompson, Matthew P.; Gannon, Benjamin M.; Caggiano, Michael D. 2021. "Forest Roads and Operational Wildfire Response Planning." *Forests* 12(2):110.
26. Hessburg, Paul F.; Churchill, Derek J.; Larson, Andrew J.; et al. 2015. "Restoring fire-prone Inland Pacific landscapes: seven core principles." *Landscape Ecology* 30:1805-1835. The synthesis describes historical Inland Pacific landscapes as spatially heterogeneous at several scales and emphasizes successional patch pattern and landscape context in restoration.
27. Louis, Libin T.; Kizha, Anil Raj; Daigneault, Adam; Han, Han-Sup; Weiskittel, Aaron. 2022. "Factors Affecting Operational Cost and Productivity of Ground-Based Timber Harvesting Machines: a Meta-analysis." *Current Forestry Reports* 8:38-54. The analysis identified harvest unit size among the important variables affecting harvesting cost and productivity.
28. Marrs Belart, Francisca; Bowers, Steve. *Small-Scale Harvesting for Woodland Owners*. Oregon State University Extension Service. The publication discusses fixed mobilization costs, economy of scale, access, and harvest unit layout as factors affecting harvest feasibility.

29. Agee, James K.; Skinner, Carl N. 2005. "Basic principles of forest fuel reduction treatments." *Forest Ecology and Management* 211:83-96.
30. Lowell, Eini C.; Willits, Susan A.; Krahmer, Robert L. 1992. *Deterioration of Fire-Killed and Fire-Damaged Timber in the Western United States*. General Technical Report PNW-GTR-292. USDA Forest Service, Pacific Northwest Research Station.