YUBA WATERSHED INSTITUTE

ADDENDUM NO. 1

Request for Proposals – Timber Harvest Operations
('Inimim Forest Restoration Project – Phase 3)

Release Date of Addendum: September 26, 2025

Original RFP Release Date: September 4, 2025

RFP Closing Date: October 3, 2025

Purpose of Addendum

This Addendum documents all revisions made to the Request for Proposals (RFP) dated September 4, 2025. These revisions include updates to project acreage, unit acreages, pile/mastication specifications, hardwood treatment criteria, surface fuel requirements, and updated project maps. This Addendum forms an integral part of the RFP and must be acknowledged in all submitted proposals.

---

1. Acreage Revision

- Total project acreage reduced from **263 acres to 258 acres**.
- Within this total, **pre-marked acres reduced from 100 to 87 acres**, and **DxP acres increased from 163 to 171 acres**.
- **Exhibit A: Cost Proposal Form** and all references throughout the RFP have been updated accordingly.

---

2. Exhibit B: Project Area Maps

All project maps have been revised to reflect updated unit boundaries and acreage. *(Updated maps are included in Exhibit B.)*

---

3. Exhibit C: DxP Guidelines

Exhibit C has been revised in its entirety. Substantive changes include:

- **Hardwood Retention**: Clarifies that in areas without hardwoods over 14″ DBH, retain the healthiest 1–2 oak and/or madrone stems, spaced at least 20′ from dripline of other retained trees.

- **Diameter Classes**: Hardwood removal expanded from 4–10″ DBH to **1–14″ DBH**.
- **Black Oak Sprouts**: Prior requirement deleted (covered under hardwood retention).
- **Minimum Cut Size**: Stems <1″ DBH do not need to be cut or removed.
- **Surface Fuels**: All dead and downed material 1–10″ diameter must be piled or masticated. For downed logs >10″, all limbs <10″ must be removed and piled/masticated. This specification applies to 90% of the project area.
- **Compliance Inspection**: Clarifies inspection criteria to be consistent with DxP guidelines.

---

4. Other Clarifications

- **Harvest Approach**:
  - Mastication may be used instead of piling for all cut live material 1–4″ DBH. Masticated depth limited to an average of 4″ (averaged over the unit), not concentrated at bases of retained trees, excluded from roads and waterways, and kept ≥15′ from constructed burn piles.
  - Piles must be ≥20′ from driplines of residual trees, where feasible (previously 25′).
- **Contractor Responsibilities and General Conditions**: The following general condition has been added to the RFP:
  - Dust Abatement: Contractors shall water haul roads if significant dust is generated from project operations, and leave or crush some initial slash to reduce dust on main skid roads if warranted.
- **Consistency**: All numerical changes carried through to Exhibits and Cost Proposal Form.

---

5. Revised RFP Attachment

A revised version of the full RFP is attached to this Addendum. The revised RFP shows all changes with **strikethroughs** applied to removed text and **underlines** applied to new text. The revised RFP also includes the updated project maps in Exhibit B.

---

6. Acknowledgment

All proposers must acknowledge receipt of this Addendum in their proposals.

Issued by:
Chris Friedel, Executive Director
Yuba Watershed Institute
chris@yubawatershedinstitute.org | 530-955-1822

YUBA WATERSHED INSTITUTE

REQUEST FOR PROPOSALS
TIMBER HARVEST OPERATIONS (~~263~~ 258 acres)

RELEASE DATE: September 4, 2025. Revised September 25, 2025

CLOSING DATE: October 3, 2025

PROJECT TITLE: ‘Inimim Forest Restoration Project - Phase 3

CONTACT PERSON: Chris Friedel, Executive Director
chris@yubawatershedinstitute.org
cell: 530-955-1822

Yuba Watershed Institute
P.O. Box 2198
Nevada City, 95959

TABLE OF CONTENTS

I. SUMMARY

The Yuba Watershed Institute (YWI) is seeking proposals from qualified contractors to implement a ~~263-acre~~ 258-acre timber harvest as part of Phase 3 of the 'Inimim Forest Restoration Project. The project is located on Bureau of Land Management (BLM) lands in Nevada County, California. Approximately ~~100~~ 87 acres of this area have been pre-marked for cutting, while the remaining ~~163~~ 171 acres will be treated using the Designation by Prescription (D x P) method outlined in Exhibit C. All merchantable logs will be decked for BLM to handle, and slash and non-merchantable material must be piled for later burning by BLM.

The purpose of this project is to improve forest resilience to wildfire, drought, and insect outbreaks, while also enhancing habitat quality and reducing hazards to residents and fire personnel. Proposals are due by October 3, 2025. This RFP will be evaluated as a best-value process, not a low-bid competition.

II. PROPOSAL INSTRUCTIONS

A. Schedule

Release of RFP	September 4, 2025
Pre-Proposal Field Meeting	September 17, 2025
Final RFP Questions Due	September 19, 2025
Final Question Responses Posted	September 26, 2025
Proposal Due Date	October 3, 2025
Notice of Intent to Award	October 17, 2025
Contract Award	October 24, 2025 (estimated)
Notice to Proceed	November 1, 2025 (estimated)

B. Questions and Addenda

Questions regarding the RFP shall be submitted by email to the Executive Director, Chris Friedel (chris@yubawatershedinstitute.org).

Questions shall be received no later than September 19, 2025. Question responses will be posted on the YWI website (yubawatershedinstitute.org) no later than September 26, 2025. Responses will also address those questions posed during the non-mandatory field visit. Any addenda to this RFP will also be posted on the YWI website no later than September 26, 2025. Proposal should acknowledge receipt of addenda, if applicable, and of YWI question responses.

C. Pre-Proposal Field Meeting

The YWI will conduct a **non-mandatory pre-proposal field meeting** of the project area on September 17, 2025 at 10:00 a.m. The meeting will commence in the parking lot of the North Columbia Schoolhouse Cultural Center, located at 17894 Tyler Foote Rd, Nevada City, CA. All interested parties are requested to R.S.V.P. by email to Chris Friedel (chris@yubawatershedinstitute.org).

D. Proposal Submission

Proposals must be submitted via email to Chris Friedel (chris@yubawatershedinstitute.org) no later than October 3, 2025. Please cc yourself as verification of submittal. Late proposals will not be accepted.

E. Proposal Format

The proposals must be an 8½" X 11" Portable Document Format (PDF) file and may be no more than a total of fifteen (15) pages. NOTE: A single sheet cover letter and any attachments included in this RFP which are required to be submitted with the proposal, including cost proposal, insurance, licensing documents, and addenda acknowledgments, do NOT count toward the fifteen (15) page limit. Proposals that do not furnish information organized according to the format or do not include the content specified in this RFP may be rejected as non-responsive.

F. Required Proposal Content

Cost Proposal: A Cost Proposal shall be submitted. Estimated quantities should be based upon the best available information at the time of advertisement of the RFP.

The respondents are expected to identify the cost to complete the work and provide firm unit costs as identified in the attached Cost Proposal Form (Exhibit A) for each item specified. The actual quantities (acres) required may fluctuate up or down, but the unit prices proposed by each respondent shall remain firm and shall not be negotiated. All unit prices must include overhead and profit.

Approach, Staffing, Work Plan, Schedule: Proposers shall provide an overview of Contractor's understanding of the services to be provided and their approach to the work, including but not limited to equipment to be utilized, staffing requirement expectations, and any other items that are necessary to demonstrate Contractor's proposed strategy to complete the project. The approach shall include the proposed work plan and schedule for accomplishing the work.

Experience, Qualifications, and References: Proposers shall provide a general description of Contractor's experience and qualifications related to work of similar scope and complexity. Provide an organizational chart and concise resumes of key staff and Subcontractors indicating the names and roles of staff and Subcontractors and their experience. For key staff, please indicate each individuals' availability for this project and describe the specific role they would play in this project. Provide a description of two to three recent projects with a similar scope of work, including the contact information for the references who oversaw these projects. Photographs of other projects completed are helpful but not required.

Insurance Certificates: Provide copies of insurance certificates reflecting the requirements outlined in the Sample Agreement (Exhibit E) and summarized below:

- Workers Compensation Insurance with statutory limits (not less than $1,000,000 per occurrence);

- A general liability insurance (not less than $1,000,000 per occurrence and $2,000,000 aggregate for personal injury and property damages), including Logger's Broad Form – Form B Third Party Liability Insurance;
- Business Auto Liability Insurance (not less than $1,000,000 combined single limit for bodily injury and property damages) covering all vehicles including hired cars, owned and non-owned vehicles;

Licenses: Provide proof of California Business License and Contractor's License.

G. Evaluation Process

An evaluation committee will evaluate all proposals received for completeness and the proposer's ability to meet all specifications as outlined in this RFP. The following evaluation criteria and weight of importance shall be used in evaluating and selecting a contractor.

Evaluation Criteria	**Points**
Cost Proposal	45
Experience, Qualifications, and References	25
Approach, Staffing, Work Plan, and Schedule	30
Proof of Insurance	Y/N
Proof of California Business License and Contractor's License	Y/N

H. Award of Contract

The YWI may reject any and all proposals and re-issue this RFP. The YWI may choose to award one or more contractors to service any portion of the project. The YWI may waive any minor irregularities or immaterial defects in a proposal. The YWI reserves the right to request additional written or oral information from proposers to obtain clarification on their proposals. All costs associated with development of the proposal in response to the RFP shall be the sole responsibility of the proposers and shall not be charged in any manner to the YWI.

The contract is expected to be awarded by October 24, 2025.

III. PROJECT BACKGROUND AND OBJECTIVES

The 'Inimim Forest Restoration Project is a long-term collaboration between YWI and BLM to restore approximately 1,140 acres on the San Juan Ridge. Previous phases have focused on shaded fuel breaks and understory thinning. Phase 3 builds on that work with the following objectives:

- Thinning plantations of dense ponderosa pine planted in the 1960s.
- Reducing ladder and canopy fuels.
- Promoting shade-intolerant pine, Douglas-fir, and hardwoods.

- Creating forest structural diversity (gaps, clumps, wildlife habitat features).
- Enhancing safety for fire personnel and nearby communities.

IV. SCOPE OF WORK

A. Project Area

The project area encompasses ~~263~~ 258 acres of BLM land within the ‘Inimim Forest. See Exhibit B for maps.

The YWI will provide Contractor with a secure, locked area within a 10-minute drive of treatment units where equipment can be stored overnight or when not in use. The location of this area is still to be determined.

B. Harvest Approach

Approximately ~~100~~ 87 acres will be cut according to existing tree marks, while roughly ~~163~~ 171 acres will be treated using Designation by Prescription, or D x P (see Exhibit C). The area marked has a differing prescription than the area using D x P.

Trees will be cut, slash/unmerchantable material will be mechanically piled in the woods, and merchantable sawlogs will be skidded to a landing and decked.

Slash mechanically piled in the woods will be piled in open locations within the unit where, if burned during proper conditions, will not be at risk of igniting residual trees. Piles shall be at least ~~25 feet from residual trees~~ 20 feet from the driplines of residual trees, where feasible. Piles shall also be 100 feet from public roads and property lines. Piles shall be at least 200 feet from homes or structures. Piles shall be kept outside of watercourse buffers.

In both the D x P and pre-marked areas, small diameter trees and brush that should be removed per the D x P specifications shall be cut and piled in the mechanical piles. Mastication may be used in place of piling for all cut live material between 1 and 4″ DBH. Masticated material must not exceed an average depth of 4 inches (averaged over the unit), must not be concentrated at the base of retained trees, and must be excluded from waterways and roads. Masticated material should also be kept at least 15 feet away from constructed burn piles.

At the landing, decked logs should be cut to length and organized by species. Logs must have a 6-inch minimum diameter inside bark (DIB).

C. Work Sequence and Timing

The anticipated start date of this project (i.e., expected date of Notice to Proceed) is November 1, 2025. However, if BLM fire restrictions are still in place at this time, the project start date will be postponed until after such restrictions are lifted.

During each year, all project work must be completed no later than February 28. If needed, project work can be spread out over two November – February seasons (i.e., November 2025 – February 2026, November 2026 – February 2027).

The work will be overseen by a representative of the YWI, a Registered Professional Forester (RPF). Contractor shall not be absent from the project for more than two weeks without the express permission of the RPF. If an absence is anticipated, Contractor shall notify the RPF at least one week in advance of the anticipated absence. Absences due to weather restrictions are an exception to this requirement, but must be coordinated with the RPF.

D. Communication and Coordination

Contractor shall provide one foreman that shall serve as a point of contact with the RPF. Proposals shall specify which key staff member will fill this role.

The foreman will be responsible for providing weekly reports on project accomplishments to the RPF (i.e., by phone call, text, or email) and will be available to respond to phone calls and/or emails from the RPF. The foreman will also be responsible for communicating Project requirements to all crew members. If the RPF communicates a modification to treatments or other instructions, the foreman shall pass these instructions along to all crew members within one day. The foreman will give the RPF at least a 3-day notice before moving to a new treatment area.

E. Equipment

Contractor shall include in their Proposal information about the types of equipment that will be used during the Project. BLM Project Design Features (Exhibit D) require that equipment will have rubber tracks rather than metal tracks or tires, whenever feasible or warranted by resource concerns, in order to reduce ground disturbance. In addition, tractor-based equipment is preferable to excavator-based equipment for the same reasons. Project proposals shall include sufficient information about equipment types (e.g., make/model, wheeled vs. tracked, type of wheels/tracks, size, etc.) and this information will be used by the evaluation committee as part of its criteria for ranking proposals.

V. CONTRACTOR RESPONSIBILITIES AND GENERAL CONDITIONS

Contractor is expected to provide all labor, materials, equipment, transportation, insurance, permits, and licenses necessary to complete the project. The following conditions will apply:

- **Training and Oversight:** All crew members must attend mandatory RPF-led training on prescriptions, plant identification, environmental and cultural resources, and safety before work begins. New workers must be trained before joining the crew.
- **Sensitive Resources:** Contractors must immediately halt work and notify the RPF if they encounter special-status species, active nests, or cultural/archaeological resources. Wildlife must be allowed to leave the area safely.

- **Equipment Standards:** Equipment must be in good working order, free of leaks, and fitted with spark arresters. Tractor-based equipment and rubber tracks are preferred to minimize soil disturbance. Equipment must be cleaned prior to site entry to prevent the spread of invasive species and pathogens.
- **Fuel and Hazardous Materials:** Contractors must provide their own fuel and supplies, maintain spill containment kits, and comply with BLM hazardous materials requirements. Refueling must be done away from aquatic resources.
- **Safety Measures:** Contractors must post warning signs or road guards when necessary and take reasonable precautions to avoid injury to the public.
- **Damage and Repairs:** Contractors are responsible for repairing any damage they cause to roads, trails, gates, fences, culverts, or signage, restoring them to equal or better condition within ten days of notification.
- **Soil and Erosion Control:** Operations must minimize soil disturbance. Work must cease if there is risk of erosion or compaction.
- **Dust Abatement:** Contractors shall water haul roads if significant dust is generated from project operations, and leave or crush some initial slash to reduce dust on main skid roads if warranted.
- **Cleanup:** Contractors must maintain a clean worksite, remove trash daily, and ensure no waste is left on the ground.
- **Compliance:** Contractors must comply with all applicable federal, state, and local laws, as well as the BLM Project Design Features (Exhibit D).
- **Inspections:** YWI will conduct inspections to ensure compliance. Inspections do not relieve contractors of responsibility for quality control. Final inspections for payment will occur only on completed items.

EXHIBIT A

Cost Proposal Form

ITEM NO.	DESCRIPTION (Vegetation Treatment Prescription)	UNIT (ACRES +/-)	UNIT PRICE ($/ac)	TOTAL PRICE ($)
1	Timber Harvest (Marked + D x P units)	~~263~~ 258		

Page Intentionally Blank

EXHIBIT B
Project Area Maps

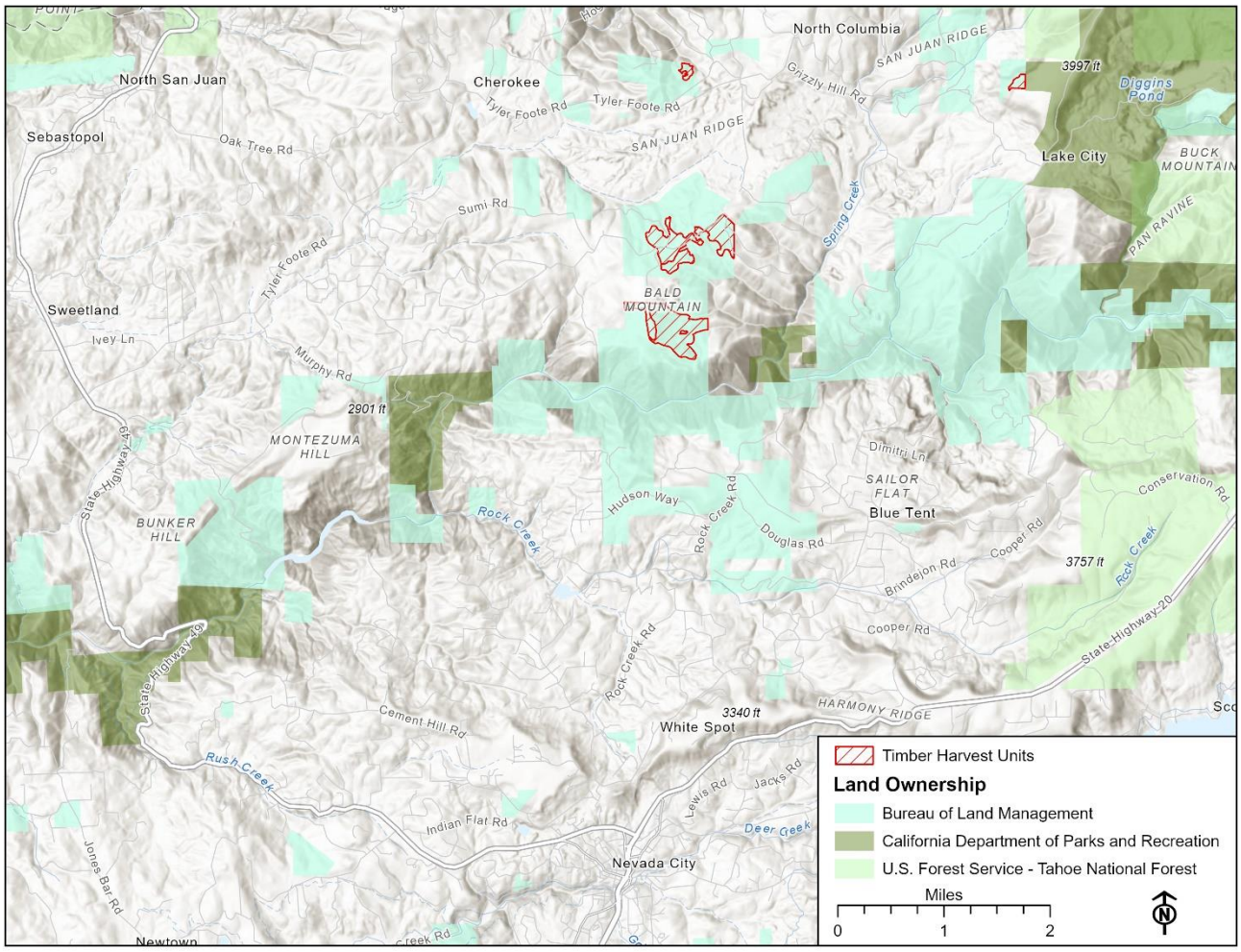

Figure 1. Location of project in relation to nearby communities and landmarks.

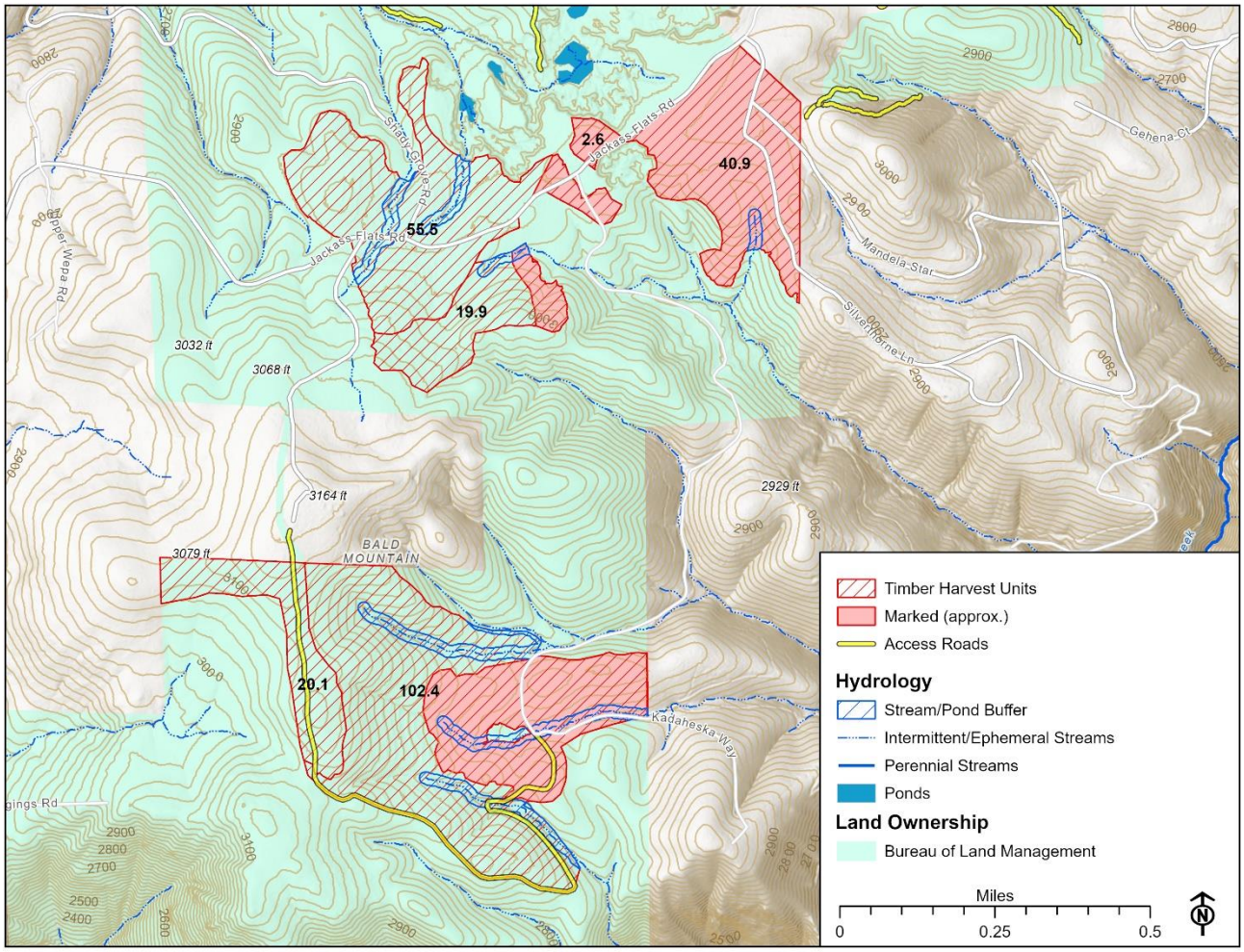

Figure 2. Timber harvest units off of Jackass Flats Road.

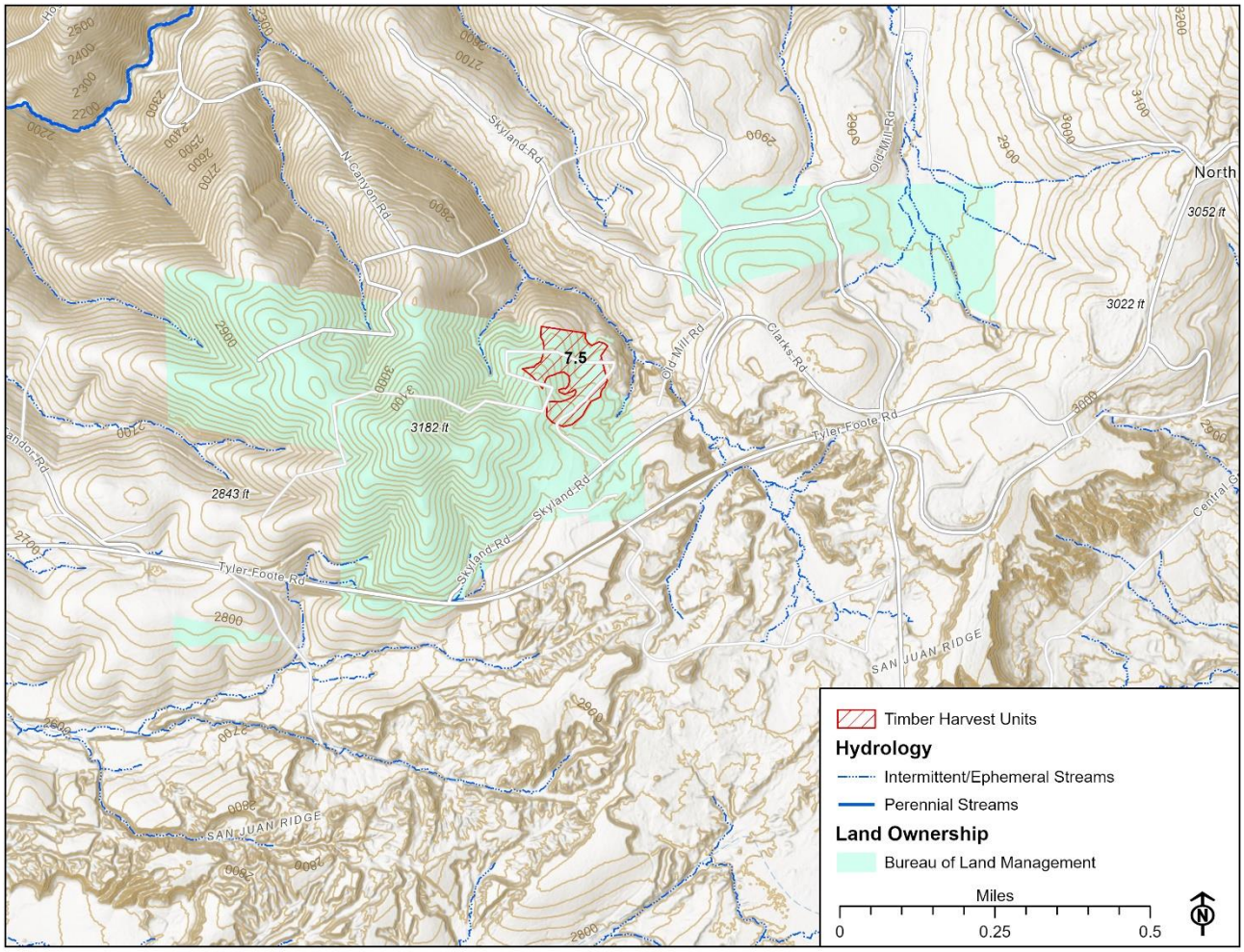

Figure 3. Timber harvest unit on North Canyon Road.

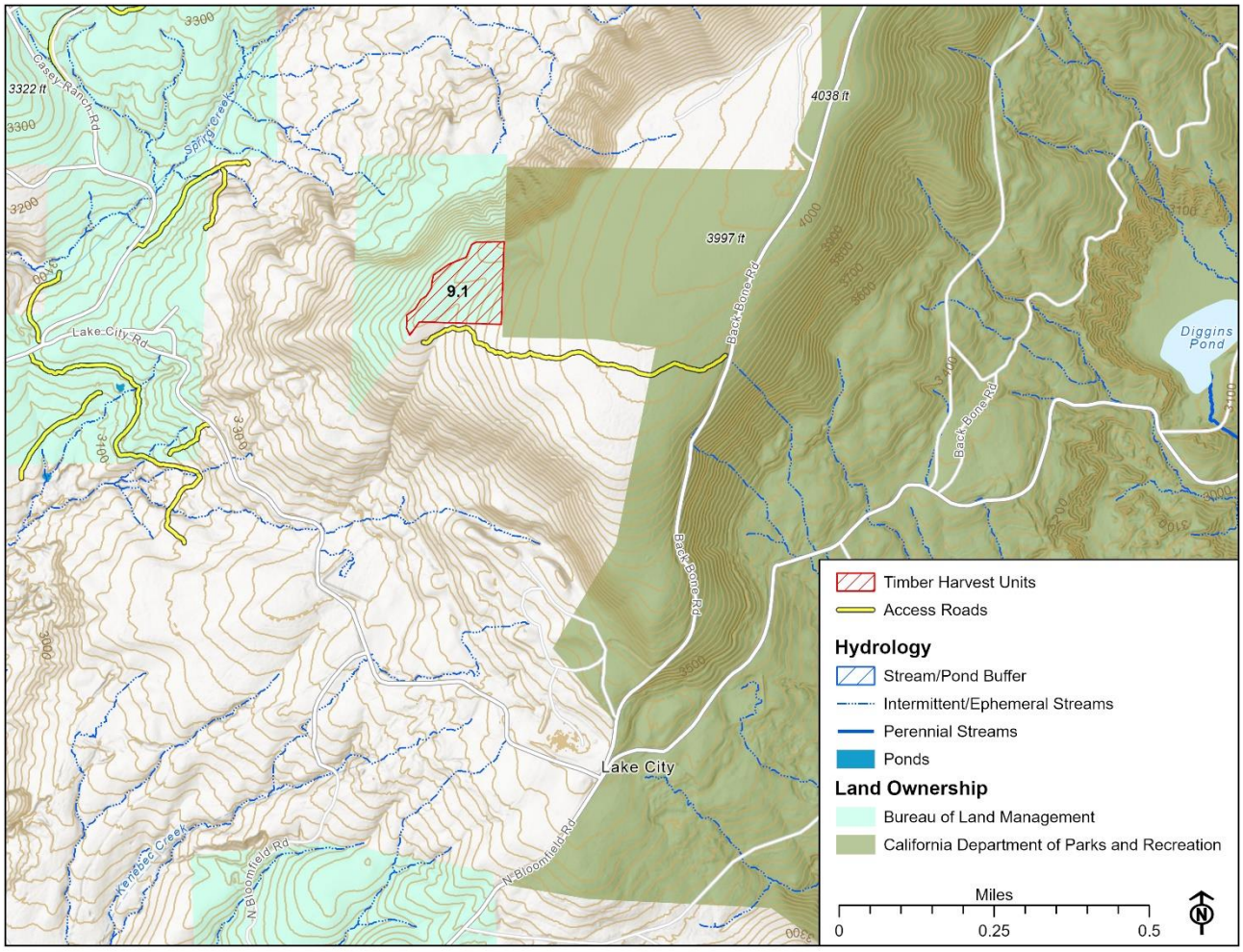

Figure 4. Timber harvest unit off of Back Bone Road

EXHIBIT C
'Inimim D x P Guidelines

Contents:

Procedure

1. Any mechanical harvester operator and/or fallers designated to conduct falling operations will be required to mark (with paint or flagging) a one (1) acre test-mark area to demonstrate their ability to meet the Selection Criteria stated below.
2. When operations begin, the operator should begin their cut within the test mark area or an area that has been pre-marked, and then proceed into D x P areas.
3. In D x P areas, the oversight contractors will conduct Compliance Inspection(s) per the specifications below at regular intervals.

Designation by Prescription (D x P) Description

Operation Objectives

- Reduce ladder fuels
- Improve health of retained trees
- Improve health of high density, closed canopy groups (i.e., wildlife leave pockets)
- Reduce high forest density based on species and landscape position
- Promote healthy shade intolerant pine, Douglas-fir and hardwood species
- Promote open gaps 0.25ac- 10ac in size irregularly distributed throughout the site
- Promote the development of wildlife habitat and old forest characteristics and maintain current wildlife use characteristics
- Maintain or increase stand variability through varying treatment intensities resulting in groups and clumps that have varying sizes, shapes, and species composition
- Reduce safety hazards adjacent to roads open to the public and dispersed recreation areas

BA Target

Ponderosa Mixed Conifer: Average of 70 ft^2 BA/AC; Range of 40-100 ft^2 BA/AC

Species Retention Preference (from least preferred to most preferred for retention)

White fir > Incense cedar > Sugar pine > Ponderosa pine > Douglas-fir > Hardwoods

Retention Criteria

- Retain all conifers greater than 30" DBH unless designated by BLM as a hazard tree.
- Retain all hardwoods greater than 14" DBH
- ~~Retain healthiest 1-2 stems of all Oak species and Madrone with a spacing of 35 feet~~

- In areas where there are no hardwoods over 14″ DBH, retain the healthiest 1–2 stems of oak species and/or madrone, with spacing from other retained trees of at least 20 feet from dripline.
- Retain conifers and hardwoods with the highest crown ratio and healthiest stems whenever possible.
- Retain all non-hazardous snags greater than 20” DBH
- Retain the three largest pre-existing downed logs per acre that are greater than 20 inches in diameter at the large end within harvest units
- Retain all trees on property lines, boundary trees, or trees marked with orange or red paint
- Avoid felling any tree that would damage retained hardwoods, specifically any conifers surrounded by madrone or within madrone patches.

Selection/Removal Criteria*

**Removal criteria should first adhere to all retention criteria*

- ~~Remove 95% of conifers and hardwoods 4-10” DBH.~~
    - ~~For black oak stem sprouts between 4-12 DBH, the clump shall be thinned to retain the best 1 or 2 stems.~~
- Remove 95% of conifers and hardwoods 1–14″ DBH. Stems less than 1” DBH do not need to be cut or removed.
- ~~As much small diameter material (under 4” in diameter) should be cut and piled; crushing such small diameter material should be avoided to the extent possible with preference being for such vegetation to be piled.~~
- All dead and downed material between 1 and 10″ diameter shall be piled or masticated. For dead and downed logs greater than 10″ diameter, all limbs less than 10″ diameter shall be removed and piled or masticated. This specification applies to 95% of the project area.
- Remove conifers within 25’ of the dripline of black oaks or interior live oaks over 12” DBH.
- Remove shade intolerant conifers (WF, IC, DF) within 50’ of the dripline of healthy pines (SP & PP) over 30” DBH and within 25’ of healthy pines (SP & PP) over 24” DBH. Smaller diameter ponderosa pine should also be removed from the dripline of such large pines when it is in excess of the desired 120 ft^2 BA/AC, removing smaller diameter trees first.
- Hazard trees:
    - Dead and dying conifers shall be removed with or without prior designation if within 1.5 times its stem height to target (property line, road, landing, or infrastructure).
    - Dead and dying trees shall be removed within 200 feet of roads, powerlines, or residential structures.
    - Live hazard trees shall be designated with blue or green paint if not already designated and approved by the BLM. Live hazard trees greater than DBH limitations shall be gps’d and accompanied by reason for removal and immediately supplied to BLM personnel within 2 business days for documentation.
- Remove pines if there is evidence of successful bark beetle attack.
- Remove sugar pines if there is evidence of white pine blister rust.
- Remove trees with low vigor (low (<30%) live crown ratio, trees with needles that are short and foliage that is sparse, scattered or chlorotic when compared to healthy individuals, form is flat, live cambium is not evident in bark fissures). Favor removing trees with dead tops.

Desired Residual Forest Structure/ Characteristics

Structure:

- On ridge-tops and south and west-facing slopes focus on removing shade tolerant species and creating more open areas. Thin widely from pine and oak.
- On north and east-facing slopes, moister areas within units such as draws, and canyon/bottom slope areas focus on removing fuel ladders while maintaining canopy cover. Cutting will be somewhat lighter in these areas than on ridges and upper slopes.
- Within stands, important stand topographic features include concave sinks, cold air drainages, and moist microsites. These areas are more appropriate for denser stands and a more shade tolerant composition post-harvest, regardless of landscape position. Particular attention should be paid to group structure and not just a canopy cover goal.
- Clumps:
    - Leave some groups of large trees, but thin around those groups to provide resources for the retained group, i.e. thin heavier next to retention areas to release resources for those retained higher density of trees.
    - Retain occasional clumps of natural regeneration for wildlife hiding cover, use, and diversity.
- Gaps:
    - Gaps should make up approximately 10% of the unit acreage and should range in size from 0.25 ac. to 10 ac. in size.
    - Gap shapes should not be perfect circles but rather naturally shaped with current stand and landscape limitations. Ensure that the amount of gap edge is minimized by making gaps (amoeboid) in shape.
    - Locate where removal of trees would promote growth or regeneration of shade intolerant (pines) trees.
    - Locate gaps in areas where surrounding stand has or will be thinned and preferably where surrounding trees are short enough not to interfere with sunlight to the gaps.
    - Cut gaps of unhealthy pines unless entire stand is affected.
    - GPS gap location with a point and approximate acreage for administrative purposes.

Characteristics:

- Do not remove pines with legacy characteristics (i.e. platy bark in old growth clumps) regardless of size or crown position.
- Wildlife Use: Retain trees with broken tops, bayonet tops, hollow chambers, candelabrum tops, witches brooms, forked tops, twin trees, live cull trees, wolf trees, and any other indicator that would indicate a potential microhabitat for wildlife use throughout stands

Compliance Inspection

1. Visual observation compliance will consist of subjective monitoring by the Authorized Officer for compliance with the selection criteria. Compliance will be considered satisfactory if ninety (90) percent of the observed cut or retained trees are determined by the Authorized Officer to meet the selection criteria.

2. The Authorized Officer shall inspect felling operations by random plot selections through felled areas. At each plot, the following will be inspected to determine if the approval level is being met:

a) Diameter and species of stumps measured at six (6) inches or less above ground on the uphill side.
b) DBH and species of residual trees.
c) Average square feet of basal area per acre of residual trees ten (10) inches DBH and larger.
d) Spacing and species of retained small diameter ~~(4-10 inch DBH)~~ trees less than ten (10) inches DBH.
e) Removal of non-merchantable ~~conifers to landing (10-16 inch DBH)~~ trees and brush to burn piles.
f) Number of trees significantly damaged by the Purchaser's operation at each plot.
g) The selection of residual trees and the work quality.

3. The purchaser's operations will be considered approved if:

a) Ninety (90) percent of the residual trees meet the selection criteria in Section II.
b) More than ninety-five (95) percent of the residual trees are not significantly damaged by operations under the contract. Significant damage is defined as any tree having greater than thirty (30) percent of the bark removed from the circumference of the tree, any tree with top diameter broken at three (3) inches in diameter or greater, or any tree being visually root-sprung.

If the Purchaser's operations fall below any one of these approval levels, a written warning will be immediately issued to the Purchaser.

EXHIBIT D
BLM Project Design Features

To comply with the environmental analyses and decisions required of the U.S. Bureau of Land Management and its partners by the National Environmental Policy Act (NEPA), Contractor must implement all Project Design Features (PDFs) included in the 'Inimim Forest Restoration Project Environmental Assessment (EA) (DOI-BLM-CA-C080-2020-0005), available at: https://eplanning.blm.gov/eplanning-ui/project/1502579/570

While Contractor is subject to all NEPA requirements found in the EA, the following PDFs are those that are the most applicable to the project and that should be considered and/or addressed in Contractor proposals.

Air Quality

Fugitive Dust Control

During hauling operations, water or approved road surface stabilizers/dust-control additives will be applied to reduce dust and buildup of fine sediment that can enter into waterways. Road surface stabilizers/dust-control additives will not be allowed to enter waterways during application. No surface water would be drafted for dust control.

Comply with Diesel Emission Standards

The BLM and its collaborators will adhere to fuel standards for diesel fuel emissions established by the Air Resources Board and Northern Sierra Air Quality Management District, for all on-road vehicles and off-road vehicles and equipment involved in the project.

Cultural Resources

To ensure the protection of Cultural Resources, prior to implementation, Cultural Resources will be flagged for visibility. Manual treatment is the preferred method in and within 100 feet of a known culturally sensitive area. A Cultural Resource Specialist Monitor will be present at certain sites allowing manual and mechanical treatment to commence. No skidding or piling is permitted within the sensitive sites.

Avoid All Cultural Resources (Except when a Monitor is present)

- Equipment may pass through an area where no there is no presence of Cultural Resources and where ground disturbance is highly evident (e.g., old skid trails, logging roads, and landings).
- In areas along Historic ditches, roads, railroad grades, and trails identified within the treatment area that would cause no effects to surrounding Cultural Resources; equipment may pass through on established breaches.
- Hazardous trees may be directionally felled and removed. If removal is not possible the tree can remain in place to be bucked (if possible) then or at a later date.

Temporary Road and Landing Construction and Maintenance

Prior to implementation, the locations of temporary roads and landing areas will need to be reviewed by the Cultural Resource Specialist to ensure historic properties are not adversely affected.

Inadvertent Discovery of Cultural Resources

In the event of unanticipated discovery of cultural resources during the Project, the following procedures will be undertaken.

- The Motherlode Field Office (FO) Archaeologist, Field Manager, and BLM project manager or lead will be immediately notified by personnel responsible for project implementation.

- All project work and activities with the potential to damage the cultural resource will cease immediately within 50 feet of the discovery. This distance may be changed at the discretion of the FO Archaeologist in consultation with the Field Manager and BLM project manager, taking into account the circumstances of the specific project and discovery.

- The FO Archaeologist will make an assessment of the situation and, in consultation with the Field Manager, prescribe a course of action consistent with the Protocol and/or the Section 106 regulations at 36 CFR 800.13 pertaining to post-review discoveries and unanticipated effects.

- The FO Archaeologist will oversee and document implementation of the agreed-upon steps and will report the discovery event and the manner of its resolution.

- The Field Manager has sole discretion to authorize (through a Notice to Proceed) continuation of project work and activities within the area of the discovery or anticipated effects after the situation is fully resolved.

Inadvertent Discovery of Human Remains

Inadvertent discovery of human remains and objects subject, or potentially subject, to Native American Graves Protection and Repatriation Act (NAGPRA) as defined in 43 CFR 10.2 (d) will be handled by the BLM under the Archaeological Resources Protection Act regulation at 43 Code of Federal Regulations (CFR) 7 and NAGPRA regulations at 43 CFR 10 as well as related BLM policy, including BLM California-specific policy and procedures such as those in the Protocol. The situation will be resolved to the satisfaction of the Field Manager, working in consultation with the FO Archaeologist, before project work and activities are allowed to continue in the area of the inadvertent discovery. The Field Manager has sole discretion to authorize (through a Notice to Proceed) continuation of project work and activities in the area of the discovery.

Biological Resources

Riparian Habitat

- No mechanical piling will occur in riparian habitat.

- There will be no removal or treatment of live riparian hardwood species such as willow, ash, elderberry, maple, alder, yew, and dogwood. Hand thinning of conifers and other non-riparian tree species less than 10 inches DBH is allowed within riparian areas. These trees will be piled at least 50 feet from ephemeral and intermittent streams and 100 feet from perennial streams for future burning.

Vegetation and Special-status Plants

- Broadleaf tree species such as madrone, tanoak, dogwood, bigleaf maple, hazelnut, elderberry, black oak, live oak, blue oak, and others, would be retained unless they constitute a potential ladder fuel. Where there are dense stands of young oaks, these areas would be thinned to a more desirable density to release individual oaks.

- Sugar pines would be retained unless they are specifically identified for removal as hazard trees, ladder fuel, or other.

- Defect trees, snags, and downed logs would be retained for wildlife to the extent feasible. In particular, snags greater than 24 inches DBH provide hiding, denning, nesting, and food storage sites for a variety of wildlife. These large snags would be retained unless to do so would create an unsafe concentration of fuels.

  Treatments would retain a minimum of the largest eight snags per acre, on average across each parcel. If this is < 20 square feet basal area per acre, the Project would save snags < 30 inches in DBH, from the largest down, to a total of eight snags per acre or 20 square feet basal area per acre, whichever comes first.

- Sensitive biological, cultural, or other resources that require protection will be clearly identified by flagging or other means of identification. This will include snags to be retained and special habitat features that could be used by any special status wildlife species (e.g. trees with complex structure, cavities, roosting or nesting platforms, nests, acorn woodpecker granaries). For thinning treatments, these features will be marked for retention or excluded from the thinning unit. For prescribed fire treatments, these features will be excluded from the burn unit or fuels will be removed from around the feature prior to burning. Sensitive resources will be avoided to the maximum extent possible.

General Wildlife

- If a wildlife species is encountered during work, it will be allowed to move out of harm's way of its own accord. If it cannot be allowed to move out of harm's way on its own accord, a qualified biologist shall move the species to the nearest area of suitable habitat outside of the work. If applicable, depending on the status of the species, agency approval will be obtained before any species is moved.

- Existing wood rat nests and other existing large woody debris will be avoided when creating burn piles. Where possible, the Project will avoid damaging large (18+ inches) hollow or rotten logs and rotten stumps during all Project activities. Existing coarse woody material (more than 6 inches in diameter at the large end) and snags will be retained, as possible.

- If a potential wildlife nest/den site cannot be avoided, the pile will be checked for signs of wildlife before damaging or lighting. If nests or dens are found, the pile will be retained, if possible. If it must be burned, it will be restacked nearby or the animal will be given a path to escape from the fire.

- Retention of coarse woody debris in managed stands should more closely model coarse woody debris found in natural stands. The Project will retain and scatter tops and limbs from 20 percent of the trees harvested

- The Project will leave an uncut patch (minimum of 0.25 acre) for every 10 acres treated, with patches totaling 5 percent of the area. Retained trees or large snags may be used as the center for uncut patches. Riparian and other buffers can help to satisfy this goal.

Non-native Invasive Plants

- Weed-free gravel and fill dirt will be used for road work.

- To prevent weed germination and establishment, native vegetation will be retained to the maximum extent practicable in and around the Project and soil disturbance will be kept to a minimum while still meeting Project objectives.

- Weed propagation and establishment will be minimized by avoiding driving through weed-infested areas to the maximum extent feasible.

- To avoid the importation or spread of invasive weeds or non-native invasive plant species, all tools, equipment and materials required for project implementation will be washed prior to transport to the project site according to the following:

    - Sites where equipment can be cleaned will be identified before Project initiation.

    - Equipment will be cleaned or pressure washed to remove mud, dirt, and plant parts before entering public lands, prior to initiating Project activities, before transport to new work areas, and before leaving the project site if operating in areas infested with weeds. Weeds

that establish at designated equipment cleaning sites will be inspected and treated, as necessary.

- The following will be implemented to prevent the introduction of Sudden Oak Death

    - Before traveling to the ‘Inimim Forest, after working with vegetation that may have been infested with Sudden Oak Death, contractors will remove or wash off accumulations of soil, mud, and organic debris from shoes, boots, vehicles and heavy equipment, etc. Lysol or a bleach solution could be used to disinfect shoes and boots after cleaning.

Noise

Avoid Noise Disturbance to Residences

Project activities that occur in close vicinity of residences and that could cause noise disturbance to residences (i.e. expose residences to equivalent continuous sound levels exceeding 65 A-weighted decibels) will be limited to daytime hours of 8:00 a.m. to 6:00 p.m. Monday through Friday, and 9:00 a.m. to 3:00 p.m. on Saturday and Sunday unless conditions warrant that certain project activities occur during evening or early morning hours (e.g., extreme heat).

Soils and Water Resources

General Erosion Control

- Mechanized equipment will stay at least 50 feet from ephemeral and intermittent streams and 150 feet from perennial streams.

- The BLM will immediately shut down all harvest and yarding operations if there is potential for sediment movement to waterways due to weather or soil moisture conditions.

- Ground vegetation will be retained on cut and fill slopes in order to reduce surface erosion and maintain slope stability unless it poses a safety hazard or restricts individual project activities. Cut vegetation as required for safety and maintenance, leaving the root mass and ground surface intact.

- Disturbed soils will be covered with weed free straw and/or native materials and may be seeded with native, regional seed, or protected by other best management practices such as straw waddles, straw matting, jute netting, riprap armoring, etc. Where soils are deeper and more likely to erode, a packed gravel base will be considered on roads and trails to help reduce soil movement.

Hazardous Materials

- Project contractors will be required to have a BLM-approved spill plan or other applicable contingency plan. The plan will include procedures to be followed in the event of a release of oil or other hazardous substance into the soil, water, or air. As part of the plan, the contractor will be required to have spill containment kits present on the site during operations.

- Equipment refueling will not occur within 300 feet of perennial streams, 150 feet of intermittent streams, or 100 feet of any ephemeral stream to prevent toxic materials from entering waterways. Hydraulic fluid and fuel lines shall be in proper working condition in order to minimize leakage. Portable pumps can be refueled on-site within a spill containment system.

- All hazardous materials and petroleum products will be stored in durable containers located at least 300 feet from perennial streams, 150 feet from intermittent streams, or 100 feet from any ephemeral stream. Containers will be located so that accidental spills will be contained and will not drain into the stream system. Waste diesel, oil, hydraulic fluid and other hazardous materials will be removed from the site and disposed of at an approved site.

Prescribed Fire

- There will be no burning or storing materials (e.g., chips, slash, logs) in road ditchlines or on cut slopes above ditchlines, unless the material can provide bank stability and will not be transported into the ditch at the side of the road.

- Piles will be dispersed across treatment areas and limited to slopes less than 65%.

Landing Construction and Maintenance

- Landings will be located on stable locations, e.g., ridge tops, stable benches, or flats, and gentle-to-moderate side slopes.

- Landings will be located at least 100 feet away from wetlands, riparian areas, floodplains, vernal pools, and streams.

- Landing construction and decommissioning will not occur during the wet season (generally October 15 through May 15) when the potential for soil erosion, compaction, and water quality degradation exists. This restriction could be waived under dry conditions and a specific erosion control plan (e.g., rocking, waterbarring, seeding, mulching, barricading). All ground-disturbing activities will be suspended if projected forecasted rain will saturate soils to the extent that there is potential for movement of sediment from the road to wetlands, floodplains or streams. Exposed soils in landings will be covered with clean (weed free) straw mulch or slash or temporarily stabilized during work suspension. Some variations in these dates will be permitted dependent on weather and soil moisture conditions.

- Waste material from landing construction and maintenance activities, or new material, will be temporarily stored in stable areas in a location where sediment laden runoff can be confined. This material will be stored a minimum of 300 feet from perennial streams, 150 feet from intermittent streams, or 100 feet from any ephemeral stream. Materials will be stored in previously disturbed areas whenever possible. Material storage areas will be approved by BLM resource specialists before they will be used. Where necessary, erosion control will be done to minimize sediment delivery to streams.

- Landing runoff water will be diverted away from headwalls, slide areas, high landslide hazard locations, or steep erodible fill slopes.

- Landings will be inspected on a regular basis to ensure that vegetation stabilization measures are operating as planned, that drainage structures are operational, and that non-native invasive plants are not providing erosion control. Vegetation treatments and drainage structure maintenance will be completed as needed.

- As needed, landings will be blocked sufficiently to preclude vehicle access.

Landing Decommissioning

- Landings will be decommissioned upon completion of use.

- After completion of use, landings will be decommissioned by ripping, water barring, seeding, mulching and/or blocking. Decommissioning will include recontouring the entire length, placing logs, slash, boulders, berms, and other material so the entrance is camouflaged and vehicle use is precluded along its entire length.

Skid Trails

- The Project will use a designated trail network for ground-based harvesting equipment. The network will incorporate existing skid trails and landings as a priority over creating new trails and landings and will consider proper spacing, skid trail direction and location relative to terrain and stream channel features. Old skid trails will not be opened or driven on without the approval of the FO.

- Skid trails would be designated in locations that channel water from the trail surface away from waterbodies, floodplains, and wetlands, or unstable areas adjacent to them.

- Erosion control measures would be applied at skid trails and other disturbed areas with potential for erosion and subsequent sediment and silt delivery to waterbodies, floodplains, or wetlands. These practices may include seeding, mulching, water barring, tillage, and woody debris placement.

- Main skid trails would be blocked where they intersect roads and landings with an approved barricade and/or scattered slash to preclude OHV use.

- Designated skid roads will be used to limit soil compaction to less than 12% of the Project area.

- Skid trails will be located to minimize disturbance to coarse woody debris. Where skid trails encounter large coarse woody debris, either the log would be moved out of the way, or a section will be bucked out for equipment access. All sections will remain on site and as undisturbed as possible.

- Low psi, wide-track vehicles or one-pass operations (one round trip, in and out) will be required for all mechanical harvester (includes felling and bunching) operations. For multiple passes, equipment must walk on at least 12 inches of slash for equipment greater than 6 pounds per square inch or at least 8 inches of slash for equipment less than 6 pounds per square inch. Mechanized equipment must be capable of reaching 20 feet.

Waterbars

- Spacing and construction of waterbars on skid trails will be based on gradient and erosion class in compliance with standard BLM guidelines.

  From BLM Primitive Roads Design Handbook (9115 – 1):

Water Bar and Dip Spacing (feet)			
Primitive Road Grade	Sandy Loams Loams	Decomposed Granite and Sands	Clay and Silty Soils
2-3% (-)	-	2000-1000	1200-600
4-7%	1200-600	950-450	600-300
8-10%	550-450	450-350	300-200
11-15%	400-300	350-200	220-100

- The following techniques will be used to construct waterbars:
  - Open the downslope end of the waterbar to allow free passage of water.
  - Construct the waterbar so that it will not deposit water where it will cause erosion.
  - Compact the waterbar to prevent water from breaching the berm.
  - Skew waterbars no more than 30 degrees from perpendicular to the centerline of the trail or road.

Transportation

Restore Existing Roads

Following completion of treatments, existing public and private gravel roads used for Project activities would be restored to pre-project conditions. Contractors would be required to document existing conditions of gravel roads planned for project use prior to project initiation and would document restoration of these conditions following Project completion.

Visual/Aesthetic

Forest Thinning and Feathering Practices

In areas where clearing within dense vegetation is required, thinning and feathering of the adjacent vegetation will be incorporated to dissipate the linear edges of the clearing and mimic forms of natural clearings. In general, thinning and feathering will be done in irregular patches of varying densities as well as a gradation of tall vegetation down to low vegetation at the clearing edge for a more natural appearance. Thus, the contrast of a distinct line is faded out into a wide transitional band and the focal point of an artificial line will be decreased. In some circumstances, safety considerations may dictate specific thinning and feathering practices.

Private Residences

To minimize visual impacts to private residences in the vicinity of the ʻInimim, the Project will attempt to preserve vegetation, as possible, where it serves as a screen from roads and/or neighbors, guides vehicular and pedestrian access, or provides shade.

Safety

Standard BLM Safety Measures

- Signs and/or road guards will be posted to warn the public about vegetation management, prescribed fire, road, trail, and facilities maintenance when and where necessary for safety.

- Existing telephone, transmission lines, fences, ditches, roads, trails, and other improvements will be protected while implementing the proposed treatments.

- Mechanized hand tools will have federal- or state-approved spark arresters