Request for Bids
Bolivar Road Hazard Tree Abatement Project

Project Proponent: California Deer Association (CDA)

Location: Klamath National Forest, 4.5 miles (~15-minute drive) from Callahan, CA

Project treatment will occur on up to approximately 122 acres within the Salmon/Scott River Ranger District on the Klamath National Forest (KNF). The project is located in Siskiyou County approximately 4.5 miles southeast of Callahan, California in Section 34 Township 40 North, Range 08 West, Mt. Diablo Meridian. The altitude ranges from about 4,400 to 6,400 feet.

Project Deliverables
- 121.2 acres of Post-Fire Hazard Tree Abatement

Project Timeline
The timeline for this treatment would begin upon execution of the contract (estimated May 2026) to December 31, 2026.

Description of Work
The Bolivar Road Hazard Tree Abatement Project will treat approximately 122 acres of hazards created from a high severity fire known as the River Complex. This Request for Bids is a part of the larger landscape River Complex Post Fire Restoration Project that will ultimately treat 15,959 acres. The purpose of this treatment is to:
- Reduce the amount of future dead and down fuel loading within areas that were burned at high severity to reduce risk of future high severity disturbances.
- Improve conditions along ingress and egress routes, strategic ridgetop features, and adjacent to private property for future fire management.
- Accelerate the re-establishment of conifers within large patches of high severity fire where no native seed source exists.
- Improve water quality for downstream users and fish habitat by addressing sediment sources.

Hazard tree abatement areas extend 200 feet from road center line on both sides of forest system roads. All standing dead trees in the treatment areas would be assessed for abatement regardless of whether they were dead prior to the fire. Identified hazard trees would be cut and removed (or left onsite per project design feature compliance). Trees will be identified in accordance with the USDA Forest Service Pacific Southwest Region Hazard Tree Identification and Mitigation Forest Health Protection Technical Report (RO-22-01, March 2022). The area assessed for hazard tree abatement is within 200 feet of the centerline of roads to encompass guidelines which define the potential failure zone of a tree on level ground to be about one to one and one-half times the height of the tree. Identified hazard trees would be felled using hand tools (such as chainsaws) or feller-bunchers. Trees may also be decked at landings or bundled along the roadside to be removed for wood products such as lumber, biomass, or personal or commercial firewood. Furthermore, the failure zone also depends on several factors including degree of slope, obstacles, and the potential for a “domino effect” with the possibility of a more distant tree knocking down others closer to the road as it falls.

Table 1. Treatment Prescriptions

Task	Treatment	Prescription	Acres
1	Cut, Skid, Deck Hazards	Treat all hazard > 8" DBH within ALL roadside treatment units	121.2
Total			***121.2***

Item 1: Cut, Skid, and Deck Hazards

Fall all dead conifers 8" DBH and larger within the specified Roadside units. All trees will be mechanically, or hand felled to a maximum 12" stump height above natural obstacles. Trees will then be skidded with limbs intact to approved landing locations be processed and decked. All slash and top material not meeting specifications below shall be piled. Piles shall be reasonably compact and free of soil to facilitate burning. Decks shall be located at a distance of twice the height of the nearest green leave trees to the extent practicable. Decked Material shall be constructed in a compact and stable way that is easily accessible from the existing road system. This work may be accomplished with ground-based or cable equipment. Where slopes are greater than 45 percent hand falling and End lining will be necessary. Mechanized felling equipment shall be restricted to slopes less than 45 percent.

Contractor Minimum Qualifications

a) Contractor, Contractor's principal, or Contractors' staff shall have been regularly engaged in the business of mechanical operations such as logging, thinning, piling, skidding, mastication, etc., within forest environments for at least 3 years.

b) Contractor shall possess all permits, licenses, and professional credentials necessary to perform services as specified under a CDA contract.

c) Contractor shall take out and maintain during the life of the Contract all the insurance required and, if requested, shall submit certificates for review and approval by CDA. Acceptance of the certificates shall not relieve the Contractor of any of the insurance requirements nor decrease the liability of the Contractor. CDA reserves the right to require Contractor to provide insurance policies for review by CDA.

Contractor Quality Assurance

The Contractor will perform quality auditing in the form of visual inspections across each unit to evaluate that the silvicultural prescriptions are being met. Furthermore, Contractor will inspect all mechanical cutting, skidding, and piling to ensure that all items meet the listed specifications below. If the Contractor determines that the silvicultural prescriptions, cutting, skidding, and piling are not met in an area of any unit, the Contractor will be obligated to make the necessary adjustments. Measures taken to correct the treatment in an area of the unit will be communicated to the CDA project manager.

Each treated unit will also be evaluated by the CDA project manager as well as KNF staff to ensure that all of the project activities meet the listed specifications. If it is determined by either party that the treatment does not comply with the listed specifications in any area of any unit, the CONTRACTOR will be obligated to make the necessary adjustments.

Appendix A – Bolivar Hazard Tree Abatement Specifications

Cut Specifications:

- Trees selected for cutting are determined to be dead with no green needle retention.
- If any trees are still holding green needles within cutting units, these trees shall be considered live and left standing unless they pose a safety hazard.
- All hazard felled within the unit shall be removed.
- Trees identified for cutting will be **8" DBH** and greater within **200 feet** of the road prism and likely to impact the road prism or create a safety hazard when they fall.
- Guidelines define the potential failure zone of a tree on level ground as about **1 to 1.5 times the height of the tree.** However, the failure zone depends on several factors including the degree of slope, obstacles, and the potential for a "domino effect" with the possibility of a more distant tree knocking down others closer to the road as it falls.
- All project design features applicable to hazard tree abatement shall be adhered to.

Felling Requirements:

Objectives shall be accomplished through mechanical or hand-felling methods.

- All hazard trees within cutting units that are considered hazardous and within striking distance to the road prism shall be felled.
- All hazard trees shall be felled into the unit to the extent practicable, although it will not be required when in the faller's judgment it is unsafe to do so.
- Trees with a downhill lean shall be felled sidehill into the unit to the extent practicable.
- Directional felling shall be implemented when trees are adjacent to Private Roads, Stream courses, Site Specific Protection Areas and Survey Monuments.
- Trees that are felled into riparian areas shall be felled parallel with the contour not parallel with channel.
- Trees felled into riparian shall be left on site and contour felled if feasible unless leaving the tree would threaten the function of a drainage structure, cause stream diversion, or present a safety hazard including creating excess fuel loading. In general, trees in Riparian Reserves upslope of road infrastructure may be removed; and those downslope would be felled and left in place. Trees selected for hazard tree removal or fuels reduction activities must not be integral to streambank stability.
- Trees will be felled in a manner that limits damage to the living residual stand.
- Maximum stump height is **12 inches** measured at the high side at ground level. High stumps greater than 12 inches may be utilized for hot decking.

Mechanized Felling Equipment:

- Mechanized equipment shall be excluded from all Riparian Reserves equipment exclusion zones. Roadside hazard tree abatement activities are an exception and would be allowed within equipment exclusion zones wherever tree felling is required, as long as the body of the equipment remains on the roadbed.
- Refueling equipment and parking overnight shall be at least **150 feet** from surface water.

Yarding Requirements:

- Yarding or end lining trees that meet the specifications below will be required.
- Tethered yarding equipment may be utilized outside of riparian buffers.
- Whole tree yarding will be required. There shall be no limbing of trees inside units, the exception being if limbs would cause damage to residual green trees.

Skidding Requirements:

- Skidding equipment can travel short distances (e.g. up to 100 feet) on slopes 35 to 45 percent if equipment movement is restricted to straight up and down patterns on the slopes.
- Skid roads shall be agreed to in advance by an approving official.
- Skidding shall be restricted to slopes up to a maximum of **45 percent.**
- Skid trails will average **150 feet** from center to center, except where converging.
- Contractor will maintain one end suspension with logs while skidding.
- Trees are to be skidded in a way that limits damage to living residual stand.
- Refueling equipment and parking overnight shall be at least **150 feet** from any surface water.

Processing and Decking Specifications:

- Felled trees shall be taken to log landings to be processed to a 12" top. The remainder of the stem will be machine piled.
- Breakage as a result of felling operations that is > greater than **8 inches in diameter and 8 feet in length** shall be brought to the landing to be put into decks or slash piles.
- Limbing of trees shall happen at the landing and slash shall be mechanically piled.
- Logs shall be decked parallel to one another and constructed in compact and stable ways that are easily accessible from the existing road system.
- Log decks shall be comprised of logs in lengths of a **minimum 8 feet and a maximum of 41 feet**.
- Maximum landing deck size will be no larger than **16 feet in height**.
- Residual logging slash that is adjacent to the road prism that can reached with equipment must be machine piled. All other logging slash that is < less than 8 inches in diameter and 8 feet in length within the units must be scattered to a maximum 18" depth.

Piling specifications.

- Machine Piles
  - All piles shall be reasonably compact and free of soil to facilitate burning and shall be constructed of such size and at such distance from trees so that burning shall not result in unnecessary damage to residual timber.
  - Such Logging Slash shall be bucked into lengths not exceeding ten feet prior to piling.
  - Machine Piling is not required on areas where use of tractors would cause undue damage to residual timber or where slopes exceed 35 percent.
  - Piles shall be located a distance of at least twice their height in feet from the outer edge of tree crowns or snags.
  - Piles shall be no less than **4 feet** in height.
  - Material extending three feet or more outside the edge of a pile shall be trimmed.
  - An **8 foot** fuelbreak shall be cleared of all but fine material around each Machine Pile and an 18 inch wide fireline shall be cleared to mineral soil around the outer ring of the fuelbreak.
  - In areas where there is a potential for burning material to roll, firelines, including those for Machine Piles, shall be trenched on the downhill side of each pile to adequately prevent material from crossing firelines. Trenches shall be constructed by hand unless otherwise agreed.

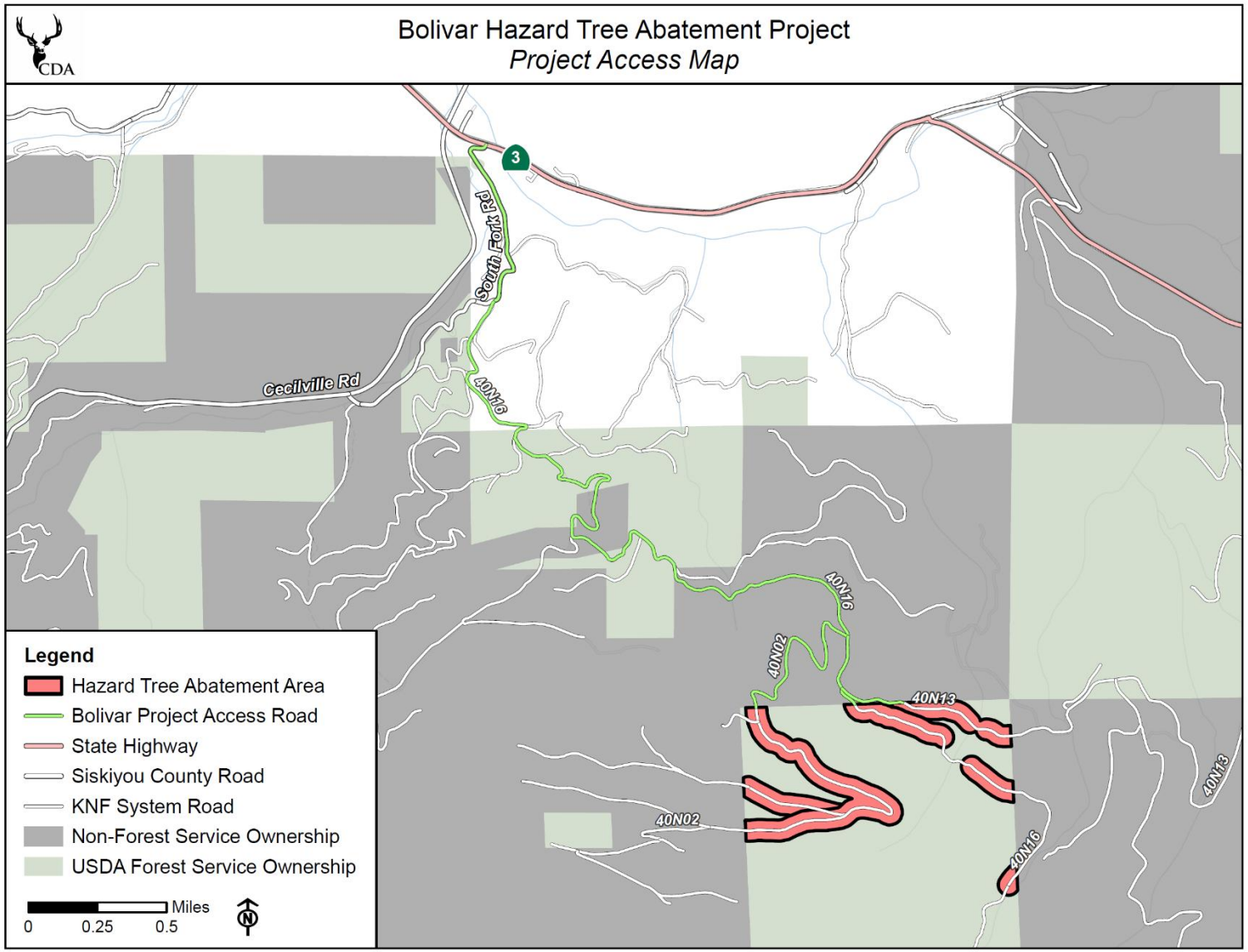
Appendix B – Project Design Features

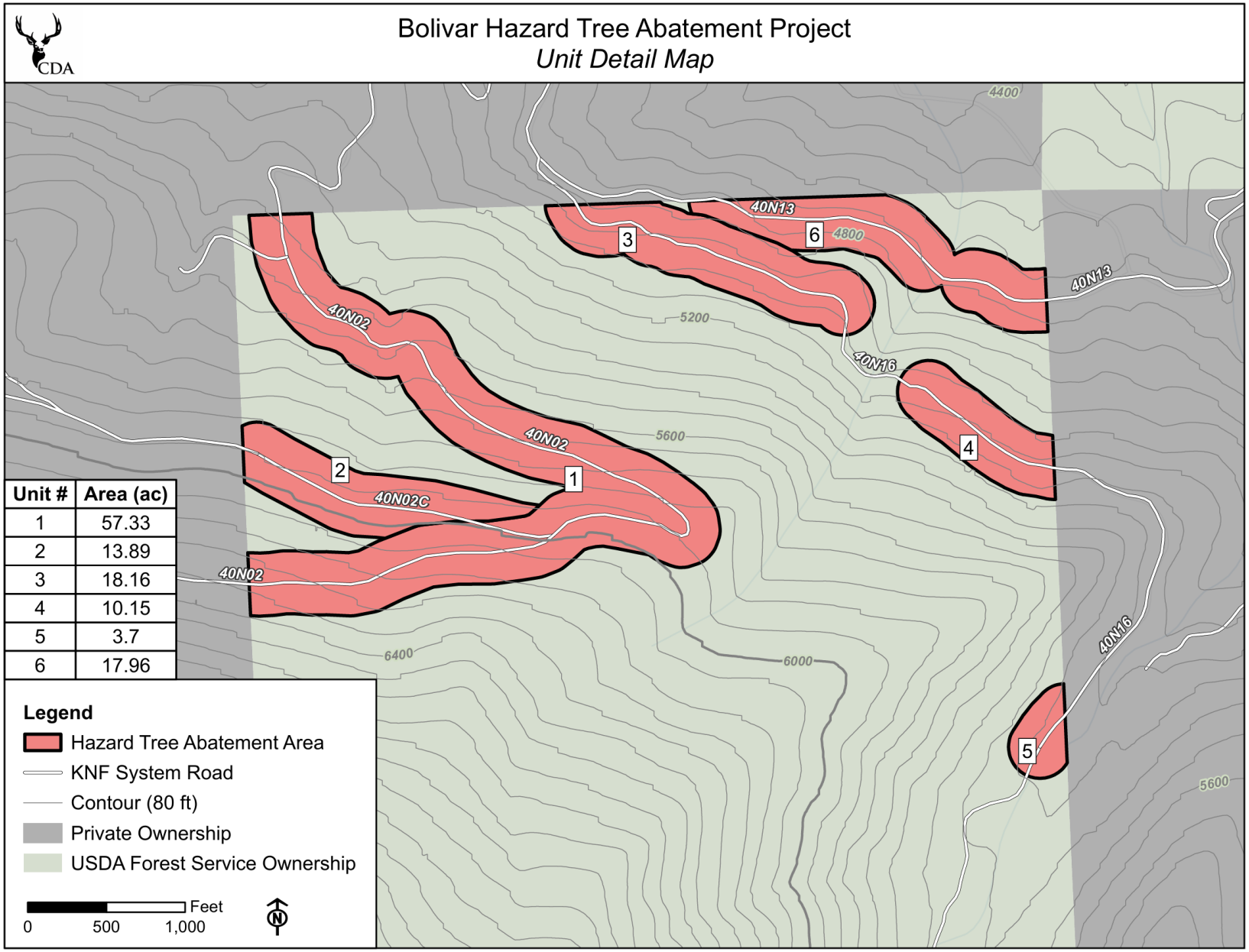
Riparian reserve buffers and exclusion zones shall be adhered to throughout the entire project.

<table>
<tr><th>Feature</th><th>Equipment Exclusion Zone[2,4]</th><th>No-Treatment Buffer[3,4]</th></tr>
<tr><td>Fish-bearing stream – Anadromous
Mechanical treatment units</td><td colspan="2">One site-potential tree[1] (150 or 170 feet) slope distance from nearer edge of active stream channel</td></tr>
<tr><td>Fish-bearing stream – Resident
Mechanical treatment units</td><td colspan="2">One site-potential tree slope distance from nearer edge of active stream channel</td></tr>
<tr><td>Permanently flowing non-fish-bearing stream
Units within 1,000 feet of fish-occupied streams AND no road crossings present between the unit and a fish-occupied waterway</td><td colspan="2">One site-potential tree slope distance from nearer edge of active stream channel</td></tr>
<tr><td>Permanently[5] flowing non-fish-bearing stream</td><td rowspan="3">One site-potential tree slope distance from nearer edge of active stream channel</td><td rowspan="3">50 feet or to break in slope, whichever is greater</td></tr>
<tr><td>Constructed ponds and reservoirs, and wetlands greater than 1 acre</td></tr>
<tr><td>Lakes and natural ponds</td></tr>
<tr><td>Intermittent[6] streams, wetlands less than 1 acre, and unstable and potentially unstable areas</td><td>75 feet slope distance from nearer edge of active stream channel.</td><td rowspan="2">25 feet or to break in slope, whichever is greater</td></tr>
<tr><td>Ephemeral[7] streams</td><td>50 feet slope distance from nearer edge of active stream channel.</td></tr>
</table>

[1]One site-potential tree – Scott River District: 150 feet; Salmon River District: 170 feet
[2]Equipment exclusion zone exception for roadside hazard tree felling, as long as equipment remains on the roadbed.
[3]Most manual treatment overlap with fish-bearing streams will utilize no-treatment buffers as described for non-fish-bearing streams. Exception is manual site preparation activities, which will utilize buffers described for fish-bearing streams.
[4]Distances apply to each side of stream measured from bank full edge.
[5]Permanent streams flow year-long.
[6]Intermittent streams flow during the wet season but dry by summer or fall. May include segments of disconnected year-round water.
[7]Ephemeral streams flow only during or shortly after rainfall or snowmelt.

Appendix C – Project Area Map (s)




Bolivar Hazard Tree Abatement Project
Unit Detail Map
CDA
4400
40N13
3
6
4800
40N13
40N02
5200
40N16
40N02
5600
4
2
1
40N02C
40N02
6400
6000
40N16
5
5600
Unit # | Area (ac)
1 | 57.33
2 | 13.89
3 | 18.16
4 | 10.15
5 | 3.7
6 | 17.96
Legend
Hazard Tree Abatement Area
KNF System Road
Contour (80 ft)
Private Ownership
USDA Forest Service Ownership
Feet
0
500
1,000
N