DEVL’S NEST HAND THINNING
Statement of Work and Request for Proposals
Kaibab National Forest, Arizona

Background and Statement of Work: The National Forest Foundation (NFF) has partnered with the Kaibab National Forest, Coconino County, AZ Department of Forestry and Fire Management to implement various forest restoration activities as part of the multi-faceted Bill Williams Mountain Forest Restoration Project. Falling within the boundary of NFF’s Northern Arizona Forest Fund, this work on Bill Williams Mountain will yield forest health and fire risk reduction benefits helping to improve watershed health and enhance protection of the City of Williams from destructive wildfire and associated post fire impacts.

The National Forest Foundation is requesting bids from qualified vendors to hand fell and pile ponderosa pine, pinon pine and juniper tree on 624 acres broken into nine (9) units on the western toe-slope of Bill Williams Mountain. Units are easily accessible by road and contain mostly flat to moderately sloped terrain (0-30%). Juniper tree boles up to a 5” diameter top are to be limbed and left whole over 215 acres of roadside buffer strips across the project area for future tribal and community member fuelwood collection (Optional Item 1. Below includes some bucking). All activity slash and other cut material is to be appropriately piled for later burning. One unit requires additional piling of pre-existing slash. Dependent upon funding, NFF may require an additional activity item to buck ≤100 acres of juniper boles into 18” rounds to facilitate collection and transportation. Treatments will be conducted according to individual unit specifications described below and in the referenced appendices.

Information Requested

If interested in this project, please provide a bid for the above statement of work by providing a proposed approach, work experience, and cost. Please also include your capacity for this project and efficiency in hand thinning and piling projects in the past, if any.

This is a request for proposals only and quotations furnished are not offers. This request does not commit the National Forest Foundation to pay any costs incurred in the preparation of submission of the quotation or to contract for supplies or services.

General Specifications

(a) Description of Work – This Request for Proposals is for restoration services related to forest fuels and restoration treatments on Bill Williams Mountain including the following:

1. 624 ac. – Thin ponderosa pine, pinon pine and junipers.
   See Project Area Map in Appendix A and Detailed Specifications in Appendix B.

2. 624 ac. – Pile all cut material for future burn disposal, EXCEPT as described below.
   See Project Area Map in Appendix A and Slash Pile Specifications in Appendix C.
3. 214 ac. – Leave limbed juniper boles up to a 5” top in fuelwood buffers. See Project Area Map in Appendix A.

4. **Optional Item** Up to 100 acres – Buck juniper boles into 18” rounds within fuelwood buffer. Specific location TBD. Subject to additional funding and needs.

The Contractor shall identify which efforts and materials they can supply in terms of materials, labor, equipment, supplies, supervision, quality control, and incidentals required to complete the work described. The Contractor shall perform all work in a safe and conscientious manner.

(b) Project Location- The Devils Nest Thinning project is located on the Kaibab National Forest, Williams Ranger District at T21N, R1E within portions of sections 3,4,9,10,14,15 (see Appendix A. Project Area Map). Treatment units are located along FR 108 (Bill Williams Loop Rd) and best accessed is from Interstate 40, exit 157 (Devil Dog Rd) six miles west of Williams, AZ.

(c) Work Schedule- The Period of Performance of this contract is from the date of Notice to Proceed (estimated August 2020) through May 15, 2021, subject to the following stipulations:

1. Work may begin immediately, pending a signed project contract and pre-work conference.
2. A minimum of 150 acres must be complete no later than November 30, 2020.
3. Units 1, 2, 3, 4, 5 & 6 (457 ac.) must be complete no later than April 30, 2021.
   *Dependent upon wildlife surveys, work may be permitted to proceed in these units until May 15, 2021. TBD ~ March 2021.
4. Full project completion (624 ac.) is required no later than May 15, 2021.

Cutting may proceed through the normal operating seasons until snow depth or other variables make the project inoperable. Should roads become inaccessible due to rain, snow, fallen trees, or Forest fire closure orders, the U.S. Forest Service may direct NFF to suspend operations until road conditions improve or the fire closure is rescinded.

Pricing Schedule

Contactor shall price work according to the schedule below.

<table>
<thead>
<tr>
<th>Description</th>
<th>Acres</th>
<th>Per Acre Cost</th>
<th>Total Unit Cost</th>
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<tbody>
<tr>
<td><strong>Unit 1. Hand Thin &amp; Pile</strong></td>
<td></td>
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<tr>
<td>Thin ponderosa pine &lt;10” DBH w/ 15’ X 15’ spacing. Fall all Juniper &lt;9” DRC. Fall all pinion pine &lt;6” DBH. 100% Hand Pile.</td>
<td>80</td>
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<tr>
<td><strong>Unit 2. Hand Thin &amp; Pile</strong></td>
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<tr>
<td>Thin ponderosa pine &lt;12” DBH w/ 20’ X 20’ spacing. Thin junipers &lt; 12” DRC 60ft X 60ft. Fall all pinion pine &lt;6” DBH. 100% Hand Pile.</td>
<td>149</td>
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<tr>
<td><strong>Unit 3. Hand Thin &amp; Pile</strong></td>
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<tr>
<td>Thin ponderosa pine &lt;10” DBH w/ 15’ X 15’ spacing. Fall all juniper &lt;9” DRC. 100% Hand Pile.</td>
<td>51</td>
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</tbody>
</table>
### Unit 4. Hand Thin & Pile
Fall all, unmarked ponderosa <10" DB. *Retain all trees marked in orange.
Fall all juniper <10" DRC.
100% Hand Pile.

### Unit 5. Hand Thin & Pile
Fall all ponderosa <9" DBH.
Fall all junipers up to 10" DRC.
100% Hand Pile. No Fuelwood.

### Unit 6. Hand Thin & Pile
Thin ponderosa pine <9" DBH, 15’. X 15’ spacing.
Fall all junipers <10” DRC.
100% Hand Pile.

### Unit 7. Hand Thin & Pile
Thin un-marked ponderosa pine ≤10” DBH, 20’ x 20' spacing. *Retain all trees marked in orange
Fall all junipers <10” DRC.
100% Hand Pile.

### Unit 8. Hand Thin & Pile
Thin all un-marked ponderosa pine ≤10” DBH, 20’ X 20’ spacing. *Retain all trees marked in orange.
Fall all junipers <10” DRC.
100% Hand Pile.

### Unit 9. Hand Thin & Pile
Thin ponderosa pine <10” DBH, 15’ x 15’ spacing.
Fall all juniper <12” DRC.
Pile coarse woody debris (pre-existing slash) up to 10” diameter
100% Hand Pile.

### Total Hand Thin & Pile Cost For All Units (1-9) ________

### Optional Item 1. Fuelwood Bucking

*May be required pending additional funding*
Buck juniper boles in "Fuel Wood Buffer" to 18” lengths. (location TBD)

### Total Hand Thin & Pile Cost For All Units (1-9) & Optional Item 1. ________

***Additional unit specific details are found in Appendix B. Detailed Information Sheet***

Pile standards are described in Appendix C. Hand Piling Specifications.

**Other Project Requirements and Specifications**

(a) **Facilities & Utilities** – No onsite sanitary facilities or other utilities are available at this forest project location. Neither NFF nor Government furnished property or materials will be provided. All tools, equipment, supplies and other items necessary for project completion (including required fire suppression tools and equipment) will be the responsibility of the selected Contractor.

The Contractor shall make its own arrangements for temporary housing and sanitary facilities appropriate to the workforce and satisfying all USFS guidelines and permitting requirements.
(b) **Specifications** – Project work shall be accomplished following the general guidelines below. Additional specific requirements and unit level specifications are found in the Appendices.

- Hand thin Ponderosa, Pinion and Juniper trees following unit specifications in the *Detailed Information Sheet* (Appendix B.)
- Retain all yellow pine and all deciduous trees
- Retain pine trees marked with orange paint in Units 4, 7 & 8 (previous timber sale)
- Fall all ponderosa and juniper <12” for 33’ around large ponderosa pine (>24” DBH), alligator juniper (>18” DRC) and Gambel oaks (>12” DRC)
- Leave stumps <6” high and flat with all residual green foliage cut from juniper stumps
- Hand pile all activity slash into MINIMUM size 8’ X 8’ burn piles following the *Hand Piling Specifications Sheet* (Appendix C.).
- Hand carry and pile activity slash outside of archaeological site boundaries. Do not drag.
- Unit 9. – Hand pile pre-existing slash ≤10” diameter
- Retain whole juniper boles up to a 5” top (small diameter end) within the 215-acre buffer zone (Note: ≤100 acres within the Fuelwood Buffer may be bucked if Optional Item 1, Fuel Wood Bucking is selected)

**Contractor Qualifications**

(a) **References** – Please provide three references for past projects of similar size and scope.

(b) **Past Experience** – Please provide a brief explanation of previous relevant work experience with land management agencies.

**Insurance Requirements**

Upon selection of the winning bid, chosen contractor will be asked to affirm that it has and shall maintain State minimum workers’ compensation insurance coverage for its employees, if any. The selected contractor shall also maintain broad form general liability, property damage, and automotive liability insurance in the minimum amount of $1,000,000 for bodily injury, death, or damage to property of any person and $3,000,000 for bodily injury, death, or damage to property of more than one person. The Contractor shall name NFF an Additional Named Insured and provide NFF with documentation evidencing such coverages.

**Performance Security**

Chosen contractor shall post cash, a letter of credit, bond, or other financial security that is easily convertible into cash in a form acceptable to the NFF in its sole determination in the amount of 5% of the amount due to contractor, not to exceed $50k dollars, to assure completion of the work required under this Agreement and payment of all amounts lawfully due to all persons supplying or furnishing to the Contractor or Contractor’s subcontractors with labor, laborers, materials, rental machinery, tools or equipment used or to perform the work. As work is completed in integrated component parts, inspected, approved and, if applicable, conveyed to NFF, the Performance Security shall be released in a proportional amount, unless a lesser amount of release is necessary to maintain 5% Performance Security.
Site Visit
An RFP site visit for interested bidders is tentatively scheduled to occur on Thursday July 10, 2020 at 9:00 AM (weather and conditions permitting). We will meet onsite, approximately 6 miles west of Williams, AZ just off of Interstate-40 Exit 157, Devil Dog Road. After taking the exit, head south going beneath the interstate and onto Forest Road 108 (AKA Bill Williams Loop Rd). We will gather in the dirt area where the pavement ends. Click HERE for Google Map directions. If you plan to attend the site visit, you must contact Mark Brehl by phone or email (contact information below) to confirm your attendance, the number of individuals who will attend and contact information to use should plans change.

If Covid-19 conditions and protocol dictate increased protection standards, an additional site visit may be scheduled to accommodate all interested bidders as needed.

Bid Submission
Submit bids via email to mbrehl@nationalforests by COB Monday July 20th, 2020.

Contractor Selection Process
The NFF will use the Evaluation Factors below to review each submitted bid. Based on the outcomes of that selection process, the NFF will notify successful and unsuccessful bidders the week of July 20, 2020 and will prepare a separate contract document.

Critical Dates

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Site Tour</td>
<td>July 10, 2020</td>
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<tr>
<td>Proposal Submission Deadline</td>
<td>July 20, 2020</td>
</tr>
<tr>
<td>Tentative Award Selection</td>
<td>July 24, 2020</td>
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<tr>
<td>Tentative Contract Award</td>
<td>July 31, 2020</td>
</tr>
<tr>
<td>Project Initiation</td>
<td>August TBD</td>
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<tr>
<td>150+ Acres Complete</td>
<td>November 30, 2020</td>
</tr>
<tr>
<td>Units 1-6 Complete</td>
<td>**April 30, 2021</td>
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<tr>
<td>Project Completion</td>
<td>May 15, 2021</td>
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Note: **Work may be permitted to proceed in Units 1-6 until May 15, 2021 pending wildlife surveys and USFS decision. TBD ~ March 2021.

Upcoming Fuelwood RFI
In an effort to both remove forest fuels from restoration projects and provide much needed firewood to tribal members for heating, cooking and traditional use the NFF will soon release a Request for Information (RFI) to solicit contractor interest, ideas and ability to provide fuelwood collection and transportation services from hand thinning projects. This information may be used to develop a Request for Proposals (RFP) to remove and transport fuelwood to tribal communities from a portion of the Devils Nest Hand Thinning Project and other future projects. If interested, please contact Mark Brehl (contact information below) to ensure you’re on the list to receive this upcoming RFI.
Point of Contact
For questions about the details of producing the bid, please contact:

Mark Brehl
National Forest Foundation, Arizona Program Forestry Supervisor
(928) 853-7578
mbrehl@nationalforests.org

Evaluation Factors and Relative Importance

<table>
<thead>
<tr>
<th>Level 3 Criteria</th>
<th>Level 2 Criteria</th>
<th>Level 1 Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Price / cost</td>
<td>• Technical proposal / proposed approach to project</td>
<td>• Benefits to the local community</td>
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<tr>
<td>• Equipment and contractor capability</td>
<td>• Overall strategic benefits to meeting NFF goals and</td>
<td>• Relationship to local community</td>
</tr>
<tr>
<td>• Timing of when contractor can begin, and/or finish the project</td>
<td>grant needs, requirements, and timelines</td>
<td></td>
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<tr>
<td>• Ability to meet project performance targets</td>
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<tr>
<td>• Past performance, references, and USFS feedback</td>
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Equal Opportunity Provider
In accordance with Federal law and U.S. Department of Agriculture policy, the National Forest Foundation is prohibited from discriminating on the basis of race, color, national origin, sex, age, religion, political beliefs, or disability.
FY 2020
Devils Nest Thinning Project

Project Map: 1 of 1
Kaibab NF, Williams RD
T21N R1E Section 3, 4, 9, 10
T21N R1E Section 14, 15, 22

APPENDIX A
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Unit</th>
<th>Acres</th>
<th>% Slope</th>
<th>Other</th>
<th>Seasonal Restriction</th>
<th>Cutting</th>
<th>Slash Treatment</th>
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</thead>
<tbody>
<tr>
<td>1.01/1.02</td>
<td>Devils Nest #1</td>
<td>80</td>
<td>0-20%</td>
<td>(See Notes - 1,3)</td>
<td>Thin ponderosa pine to &lt;10&quot; DBH, 15ft. X 15ft spacing. Fall all Juniper &lt;9&quot; DRC. Fall all pinion pine &lt;6&quot; DBH.</td>
<td>100% Hand Pile (See Notes - 4 &amp; 5)</td>
<td></td>
</tr>
<tr>
<td>1.03/1.04</td>
<td>Devils Nest #2</td>
<td>149</td>
<td>0-20%</td>
<td>(See Notes - 1,3)</td>
<td>Thin junipers ≤ 12&quot; DRC 60ft X 60ft. Fall all pinion pine ≤6&quot; DBH. Thin ponderosa pine ≤12&quot; DBH, 20' X 20' spacing.</td>
<td>100% Hand Pile (See Notes - 4 &amp; 5)</td>
<td></td>
</tr>
<tr>
<td>1.05/1.06</td>
<td>Devils Nest #3</td>
<td>51</td>
<td>0-20%</td>
<td>(See Notes - 1,3)</td>
<td>Thin ponderosa pine to ≤10&quot; DBH, 15ft X 15ft spacing. Fall all juniper &lt;9&quot; DRC.</td>
<td>100% Hand Pile (See Notes - 4 &amp; 5)</td>
<td></td>
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<tr>
<td>1.07/1.08</td>
<td>Devils Nest #4</td>
<td>19</td>
<td>0-10%</td>
<td>(See Notes - 1,3)</td>
<td>Previous Devil TS Unit #1. Fall all up to 10&quot; DBH for ponderosa pine (unmarked). Fall all juniper ≤10&quot; DRC. NO FUELWOOD.</td>
<td>100% Hand Pile (See Notes - 4 &amp; 5)</td>
<td></td>
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<tr>
<td>1.09/1.10</td>
<td>Devils Nest #5</td>
<td>6</td>
<td>0-10%</td>
<td>(See Notes - 1,3)</td>
<td>Previous Devil TS Unit #10 around Stump Tank. Fall all up to 9&quot; DBH. Fall all junipers up to 10&quot;DRC.</td>
<td>100% Hand Pile (See Notes - 4)</td>
<td></td>
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<tr>
<td>1.11/1.12</td>
<td>Devils Nest #6</td>
<td>152</td>
<td>0-20%</td>
<td>(See Notes - 1,3)</td>
<td>Thin ponderosa pine &lt;9&quot; DBH, 15ft. X 15ft spacing. Fall all junipers &lt;10&quot; DRC.</td>
<td>100% Hand Pile (See Notes - 4 &amp; 5)</td>
<td></td>
</tr>
<tr>
<td>1.13/1.14</td>
<td>Devils Nest #7</td>
<td>30</td>
<td>5-30%</td>
<td>n/a</td>
<td>Thin all un-marked ponderosa pine ≤10&quot; DBH on a 20' x 20' spacing. Fall all junipers ≤10&quot; DRC.</td>
<td>100% Hand Pile (See Notes - 4)</td>
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<tr>
<td>1.15/1.16</td>
<td>Devils Nest #8</td>
<td>60</td>
<td>5-30%</td>
<td>n/a</td>
<td>Thin all un-marked ponderosa pine ≤10&quot; DBH/ 20' X 20' spacing. Fall all junipers &lt;10&quot; DRC.</td>
<td>100% Hand Pile (See Notes - 4 &amp; 5)</td>
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<tr>
<td>1.17/1.18</td>
<td>Devils Nest #9</td>
<td>77</td>
<td>5-30%</td>
<td>n/a</td>
<td>Thin ponderosa pine &lt;10&quot; DBH on a 15' x 15'. Fall all juniper &lt;12&quot; DRC.</td>
<td>100% Hand Pile (See Notes - 4 &amp; 5)</td>
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Total: 624
## Notes:

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| **1** | **All Units**: Boundaries will be painted pink or orange (Units 4, 5, facing into the unit).  
   **All Units**: Archaeological site boundaries are designated with pink flagging or white paint OR on a map to be provided in the field. Fall trees to unit prescription and drag/pile all activity slash outside of marked archaeological sites. |

| **2** | **Devils Nest Units**: 1, 2, 3, 4, 5, 6. These units **WILL NOT** include timing restrictions in 2020 and **MAY** include timing restrictions in 2021 (Mar. 1 - Sept. 30).  
   **All Units**: Retain all yellow pines (see definition) and deciduous trees. This supercedes all other specifications.  
   **All Units**: Stump heights will be <6" (unless otherwise specified) and cut surface of stumps will be horizontal (to ensure the safety of workers in the area). All juniper stumps will be flush cut with no residual green foliage.  
   **All Units**: Cutting Preference - Only ponderosa pine, juniper and pinion will be cut, per specifications by unit (above). Retain all other species (e.g. oak). Select the most vigorous trees for retention. When possible retain trees with no mistletoe infection or the least amount of mistletoe infection.  
   **All Units**: Fall all ponderosa pine and juniper <12" for 33 feet around large ponderosa pine (>24" DBH), alligator juniper (>18" DRC), and Gambel oak (>12" DRC).  
   **All Units**: Where possible, retain 1-2 healthy ponderosa pine trees per acre that are less than 6" DBH. These saplings should be outside the dripline of other trees and be "good formed" / healthy. |

| **3** | **All Units**: Pull back all slash (piles and boles in lop and scatter units) at least 10' from a stream channel (designated by blue lines on the map), a fence, or a land survey monument. Pull back all activity slash at least 66' from private land and road edges.  
   **All Hand Piling Units**: All piles created will be a **MINIMUM** 8' tall by 8' wide in size; larger material shall be mixed throughout the pile and material should be compact enough to facilitate full consumption. Piles will be built outside the dripline of retained trees at an adequate distance from retained trees (including snags) that mortality and damage from pile burning will be minimal. Piles will not be created on large dead and down material (including stumps or downed logs) and shall be constructed to prevent fire spread/creep when they are burned. All course woody debris up to 10" in diameter will be cleared for 10’ around all piles to prevent creep when burned. In all units, pile size may be acheived by incorporating dead and downed material up to 10" diameter.  
   **Devils Nest Unit 6**: All piles will be created at a minimum 100’ from center line of the powerline/phone line.  
   **Devils Nest Unit 9**: Pile coarse woody debris (pre-existing slash) up to 10" diameter. |

| **4** | **Fuelwood Buffer**: **Devils Nest Units** 1, 2, 3, 4, 6, 8, 9: Fuelwood Buffer designated on map. Leave juniper boles up to 5" diameter on the ground for a designated distance from the nearest road. Pile all material <5". |
APPENDIX C

Bill Williams – Devils Nest

Additional Hand Piling Specifications

All activity slash created by thinning exceeding 2 feet in length or 0.5 inches in diameter on the large end shall be piled. Slash material that causes large air spaces in piles shall be cut into shorter pieces to facilitate compaction and eliminate air pockets within the pile. Each pile shall include an ignition area of small sized slash (small branches less than ¼ to ½ inch in diameter and/or small branches with needles or leaves attached) to provide “kindling” for prompt ignition and to aid in combustion of larger slash. These fuels shall be placed in the center of the pile. Piles shall be compact, dirt and trash free, and piled in such a manner that will allow them to burn completely. Piles shall not be less than 8 feet tall or less than 8 feet in width. All slash which protrudes 2 feet or more from the outer edge of the pile shall be bucked off and placed on the pile.

Piles shall be located outside the dripline of standing live trees where possible. Surrounding yellow pines >16” DBH, snags, and Gambel oak >12” DBH, piles shall be located at least 25 feet from the bole.

EXAMPLES OF GOOD PILE CONSTRUCTION:

Figure 1. The hand pile above illustrates proper construction techniques and appropriate height to diameter ratios.
Figure 2. The above pile is well formed and, despite snow cover, is ready to ignite.

Figure 3. Although the above piles are fairly small, they are well constructed and proportioned.
Figure 4. This is a well-designed pile constructed by machinery and consists of larger materials from logging operations.
EXAMPLES OF POOR PILE CONSTRUCTION:

Figure 5. This pile meets the size specifications, but has poor construction with the dead pieces sticking out around the edges.

Figure 6. See below.
Figure 7. Figures 6 & 7 show piles that are too small and loosely constructed. These piles are less than 4’ high. For scale, the bottle in Figure 7 is approximately 8” high.
Figure 8. See below.

Figure 9. Piles in Figures 8 & 9 are poorly designed & not tall enough to burn under heavier snow cover. Neither pile contains enough fine material (e.g. needles). The bottom pile appears to contain dirt and stump materials.
Figure 10. The piles above contain larger logs that could have been better utilized for firewood purposes that, when burned, could potentially roll downhill. These heavier fuels will burn for extended periods of time & may conflict with state / local smoke management.

Figure 11. This pile contains both raked up site debris & dirt. It will not burn readily & may cause fire control challenges, will create unnecessary smoke, and can never be truly cleaned up even by rebuilding it.