



BCTS Planning Safety Assessment Checklist

For TSL and Contract Use, and replaces the former 18-1 and 19-1 checklists

DATE: DECEMBER 3, 2019

Project (TSL or Contract) #: TA0915 Bks 1-3 (SMA-016A, SMA018, SMA-017).

Safety Considerations	COMMENTS
☒ = Applicable ☐ = Not applicable	
Any Known Hazards (on-site / adjacent) ☒ Overhead hazards (snags/power lines)	Snags are common throughout all blocks. Dispersed leave trees & group leave trees are prescribed as well as varying levels of basal area retention (40-60%) - some of which are deciduous.
☐ Previous activities such as road building have not created hazards such as unstable fill slopes, rocks or log decks that will affect harvesting?	
☒ Steep Slopes (+35% for ground based harvesting) information to be provided to prospective licensees to support their harvest planning such as: <ul style="list-style-type: none"> ✓ Slopes that exceed 35% ✓ Long pitches of continuous slope ✓ Terrain Stability Features e.g. fracture rock formation ✓ Ground Roughness e.g. hummocks, depressions steep, ravines ✓ Soil Conditions e.g. soil depth, exposed rock, loose gravels or soft mud. ✓ Timber size and quality ✓ Slopes or benches less than 35% but located above areas of greater slope. 	<p><u>Block 1</u></p> <p>Generally slopes are less than 35%. Small isolated steep areas of 50-60% exist, but surrounding benches allow extraction without machine access. Small areas in the western portions of the block have slopes of 40-50% that may require bladed trails- in deep soils. The terrain is generally uniform with small ridges and swales present.</p> <p><u>Block 2</u></p> <p>70% of the conventional harvest area is on slopes of 35% or less. Several areas of slopes 60% or greater exist but most can be reached from benches without machine traffic. Some hand falling will be required for areas with longer steep slopes, notably in the NW corner of the block. Approximately 25% of the conventional area is on slopes of 40-50%. These areas are usually accessed by adjacent benches but some bladed trails and hand falling will be required for safe harvest. The terrain is generally more broken with several gullies, ridges and exposed rock areas.</p>



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	<p><u>Block 3</u> 60% of the conventional haresting area is on slopes less than 35%. Several small areas of slopes 60% or greater exist but can be reaches without machine traffic. Some hand falling may be required to achieve this. 30% of the conventional harvesting area is on slopes between 40-50%. These areas are usually accessed by adjacent benches but some bladed trails and hand falling will be required for safe harvest. The terrain is variable with the northern sections more uniform. Southern sections exhibit gullies, shallow swales and exposed rock sections.</p>
☒ Dangerous Terrain (gullies, ridges, cliffs)	<p><u>Block 1</u> Generally uniform terrain with small ridges and shallow swales.</p> <p><u>Block 2</u> More broken terrain with gullies, pronounced ridges and small cliffs.</p> <p><u>Block 3</u> Varying terrain with ridges, small gullies and exposed rock.</p>
☒ Identified Terrain Assessment safety considerations	<p><u>Block 2</u> Legacy trails exist that if used, should be assessed for safety, and deactivated post harvest.</p> <p><u>Block 3</u> Legacy trails exist, and if used, should first be assessed for safety, and deactivated post harvest. Areas exist where minimal ground disturbance is recommended. These areas have been mapped and will be discussed with TSL holders during the pre-work prior to harvesting.</p>
☐ Unstable Surfaces (wet, soft)	None noted.
☒ Wind throw / Heavy Slash	Windthrow hazard is expected to be low-moderate for all blocks. Slash is not expected to be heavy due to the amount of retention. Landing areas have sufficient clearances to accommodate slash loading.
☒ Road Hazards (Road grades exceeding 18%).	<p><u>Block 2</u> A 23m section of the built portion of the Garrity 1800 has grades of 19%.</p> <p><u>Block 3</u></p>



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	The Garrity 3100 has sustained grades of adverse (-) 10% including a switch-back.
☐ Road Excavation hazard (road sections in terrain >33% + anticipated cutbanks >6m in height + any other area that shows sign of instability).	
☐ Road Construction Initiated Landslides Hazards (signs of instability, broken rock, transition zones).	
☒ Wildlife	<p><u>Block 1-2</u> Ungulates were noted within these blocks.</p> <p><u>Block 3</u> Ungulates and use were noted within the block. A nesting pair of Bard owls were observed within wtra 6.</p>
☒ Mines / Electrical / Pipelines	<p><u>Block 1</u> A domestic irrigation waterline transects the western portion of the block. 5m MFZ flagging in is place in the field. Crossings should be limited or avoided altogether if possible.</p> <p><u>Block 3</u> A domestic water intake and line exists in the SE section of the block within Reserve 5.</p>
☒ Other Risks / Hazards on site / adjacent / Root rot centres or infection levels	<p><u>Block 1</u> Evidence of Fd bark beetle in the SW corner. This block is adjacent to private land.</p> <p><u>Block 2</u> Evienc of Fd bark beetle throughout.</p> <p><u>Block 3</u> Evidence of Fd bark beetle in the SW corner. This block is adjacent to private land.</p>



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Term ☒ Adequate time to complete work given seasonal and access constraints ? Some items to consider include: <ul style="list-style-type: none"> Avalanche terrain Adjacent activities Timing constraints Project start and end dates 	Yes.
Access <i>Assessing safety on the road access system is to be document in this section. In general this section could be used for most contract projects. If a more comprehensive assessment of the road system is warranted, then staff are directed to complete a safety assessment using checklist 23-1.</i> ☒ Has access route been assessed for hazards?	<p>BCTS regularly maintains and upgrades the Smallwood and Garrity FSRs, based on safety, engineering, environmental, and funding priorities.</p> <p>If haul operations are conducted in winter or early spring, ensure adequate traction control measures are in place.</p> <p>Access roads are utilized by the general public throughout all seasons. Access to the Highway is through private land with residences.</p> <p>Post clear signage informing the public of harvesting and/or hauling activities.</p> <p>Access roads must remain passible for the general public throughout operations.</p> <p>Appropriate radio communications must be used while travelling access routes with the understanding that public traffic may or may not be equipped with radios.</p> <p>Hauling operations must be conducted in a way that ensures the safety of the public using these road systems.</p>



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	Discuss public use of roads during the pre-work.
☒ Is there a hazard mitigation strategy in place that will be enacted prior to worker exposure?	Prior to commencement of operations, radio control signage, pullouts, and lines of sight will be assessed, and upgrades implemented where appropriate.
☒ Will access routes accommodate the nature of traffic?	Yes- during dry conditions or under adequate traction controls.
<p><i>Note for all TSLs it is recommended that a detailed safety assessment be completed using 23-1 checklist in conjunction with the project safety assessment checklist.</i></p> <p>☐ Check box if 23-1 is not completed and provide a rationale.</p>	23-1 forms were completed for this development.
<p>Adjacent Operations</p> <p>☒ Are there conflicts with adjacent operations relative to timing or hazards (major licensees, salvage, silviculture, other industrial or public operations, phase congestion, Multiple employer workplace)?</p>	<p>Several tenure holders operate along access roads.</p> <p>Accessed by hikers and mountain bikers.</p>
<p>Safety Considerations</p> <p>☒ = Applicable ☐ = Not applicable</p>	COMMENTS
<p>Project Plans e.g. Harvest Plans, Road Designs, Silviculture plans etc.</p> <p>☒ Have the proposed plans been reviewed with consideration toward worker safety?</p> <p>☒ Have all known hazards been documented i.e. Highlights document, information to bidders, Project plans etc.</p> <p>☒ Have all known hazards been communicated i.e. Highlights document, information to bidders, Project plans etc.</p>	<p>Yes.</p> <p>Pending.</p> <p>Pending.</p>
<p>General Comments and or follow-up actions</p> <p><i>Where necessary results of the safety assessment (known hazards, corrective action) are to be documented on the appropriate project plans and communicated to applicable BCTS personnel and or clients i.e. Highlights documents and or information to bidders.</i></p>	



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BCTS Representative:	Who Compiled information? Patrick Kofoed, RFT Atlas Information Management
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