1.0 Purpose

To ensure that forest operations are conducted in a manner that will prevent and minimize *site disturbance,* which may include rutting, compaction, soil erosion, nutrient loss, loss of productive land, and hydrological disruption.

2.0 Scope

This procedure applies to all contractors, and overlapping licensees who conduct work on the Lac Seul Forest.

3.0 Responsibilities:

3.1 ORC Operations Forester or Designates

3.2 ORC Silviculture Forester or Designates

3.3 All Contractors and Sub-Contractors for ORC and OLL

3.4 Overlapping License Holder or Designates (OLL)

4.0 Procedures:

All OLLS and contractors must follow the policies and procedures set out in their company's own Site Protection or Site Disturbance SOP where that SOP meets or exceeds legal requirements and the requirements set out in the Obishiokoaang Resources SOP. In the absence of a company's own SOP the following practices must be followed:

1. All OLLS and contractors will ensure they implement the best management practices outlined below when operating on landings, sensitive, shallow and / or low-lying sites.

2. Equipment Operators will stop operations and notify their Supervisor if they are causing what they consider to be excessive site disturbance.

3. If excessive site disturbance is likely to occur, stop work and relocate or shut down operations before disturbance takes place.

4. Contact the ORC Operations Forester or Designate for further direction in the event that site disturbance is a significant concern.

General Requirements

Harvest operations should be scheduled for the appropriate season in order to minimize site disturbance. In the event that wet conditions are prolonged or significant and unexpected low-lying areas are encountered, operations will make an effort to move to higher ground and/or return on frozen soil conditions

Operations should plan skid trails in advance, making an effort to minimize the number of skid trails. In particular, locate chip pads / landings where converging skid trails will be least likely to cause site disturbance

Skidding will be limited to main skid trails as much as possible to minimize the disturbed area and where possible, roads and main skid trails will be located on high ground

The use of brushmats, corduroy or carry back of chipper debris is encouraged to strengthen skid trails

Where possible reduce turnaround requirements (i.e. orienting bundles appropriately) and load sizes for skidding as warranted by the site conditions

When small swales, organic pockets or shallow soil sites are encountered, the feller buncher should reach in and place felled timber on solid ground

1. Sensitive Sites

Identify sensitive areas prior to harvest or site preparation:

- Organic lowland spruce, tamarack or black ash areas;
- natural drainage areas;
- clay or silt soils;
- shallow soils, rocky sites;
- steep slopes

Implement detailed felling/skidding plan where warranted and as identified on Sign Off Maps. Consider the following:

- Felling and skidding direction
- Operational sequence to be followed
- Specific features to be flagged and locations of:
  - roads & main skid trails
  - chip pads &/or roundwood landings
  - shallow soil sites (includes ES11 & ES12)
  - areas to avoid/defer – including values (AOCs)
  - natural drainage, terrain breaks, ephemeral streams
  - upland areas less susceptible to high traffic impacts
  - aggregate sources
  - sensitive ground and soil conditions

- Monitor operations, especially during wet periods, to ensure that excessive site disturbance is not occurring
- Operate during frozen or drier summer conditions where practical
- Plan roads, skid trails & landings minimize their extent, keep to upland routes, avoid shallow soils, steep slopes & advanced regeneration
- Modify load size to minimize the loss of traction during skidding & forwarding and avoid spinning tires & sharp turns on sensitive sites
- Reinforce soft, wet areas with slash/chipper debris or corduroy or freeze down trail & remember to measure corduroy (linear scale) for crown dues
- Avoid site preparation of wet or rocky shallow soiled sites to minimize removal of organic matter
- Avoid or minimize bulldozing landing areas on shallow soil sites
- Plan funnel zones to keep to main trails & minimize extent of skid trails
- Use high floatation/low ground pressure equipment on susceptible sites, where practical
- Equipment traffic will be minimized as much as possible on steep slopes

- Skid trails and other machine traffic will move parallel along slopes where possible
- Roads and landings will be located on rock outcrops and other unproductive areas, and avoid slopes as much as possible

2. Rutting and Compaction

- A rut is defined as ≥ 4 m long & ≥ 30 cm deep; unless, in shallow soils then the lesser of depth to bedrock/large boulders or 30 cm applies.
- No ruts permitted that channel water into, or within 15 m of lakes, ponds, rivers, streams, or woodland pools.
- No more than 50% of any 0.1 ha circle is permitted in ruts.
- Clearcutting on Shallow soils (< 30 cm):
    - No more than 5% of 20 ha area in ruts.
- Clearcutting on All other soils:
    - No more than 10% of 20 ha area in ruts.
- Refer to the Stand and Site Guide, 2010 Appendix 5.2c for additional suggested strategies to minimize site disturbance if required.

3. Careful Logging around Advanced Growth (CLAAG)

The following best management practices are recommended for CLAAG and corridor harvest operations:

- Retain residual trees, organic matter and surface vegetation on steep slopes. Choose harvest methods that protect advanced growth
- Skidders / forwarders will minimize travel outside of corridors/paths left by the feller buncher
- Where possible, turnarounds and crossover trails will be located on stable ground
- For winter operations, a tramping phase is recommended prior to skidding / forwarding operations commencing

References

Document / Form	I.D.#

Revisions

#	Purpose	Prepared by	Approved by	Date
N/A	Original version	EMS Team	Chantal Alkins Certification Coordinator	November 23, 2016
A				
B				
C				
D				
E				