FLAGSTAFF WATERSHED PROTECTION PROJECT (FWPP)

# STEEP SLOPE GROUND BASED LOGGING

# What is Steep Slope Ground Based Logging?

Steep slope ground based equipment logging, sometimes called "Cut to Length" logging, consists of using two machines: 1) a harvester that cuts, de-limbs, and processes timber into logs, and 2) a forwarder that loads and carries the logs from the cutting area to a designated roadside landing.

# **Capabilities**

- Recent technological advances allow this equipment to operate on steep slopes up to 65% grade. By comparison, normal ground based harvesting equipment is limited to slopes of 40% or less.
- To minimize impacts to the soil, limbs and tops may be left in the paths used by the equipment.
- Whole trees, including the limbs and tops, may be loaded onto the forwarder and moved to a landing for further processing and disposal.

### Limitations

- Extremely rocky terrain, especially on steep slopes, can limit use and/or operability.
- Requires a road system (temporary roads most common).

# **Advantages**

- Steep slope equipment may be used in areas that would otherwise have to be cable or helicopter logged.
- Workers are protected within a reinforced cab allowing for the retention of most standing dead trees (valuable to wildlife).

# **FWPP Project**

• Approximately 320 acres (4% of treated acres) is planned for steep slope ground based equipment logging.





This institution is an equal opportunity provider.



"Forwarder" moving cut trees

### Costs

- Less than helicopter logging.
- More than ground based logging.



"Harvester" cutting trees to length