



# VCR Forestry Harvest Process

Overview of the logging process created exclusively for VCR Forestry clients

# Equipment used in logging

- Chainsaw/operator
- Tree Cutting Machine
- Log Skidder
- Knuckle Boom/Log Buck
- Log Truck
- Loggers

# Chainsaw/Operator

- For the majority of logging operations, all trees are felled by chainsaws.
- Each tree has to be felled directionally to avoid damage to this tree as well as other trees.
- In addition they have to cut the tops off trees as well as cut all limbs off to prepare tree for skidding to decking site.



# Tree Cutting Machine

- Some crews utilize a machine that automates the tree cutting process.
- Although it makes the process safer for the operator, it has limitations based on the terrain and various factors.
- Generally used in areas by high volume loggers because of increased cost of production due to price of machinery.



# Log Skidder

- Used to haul the trees from where they were cut to the decking site.
- Range in size from small to big, depending on the requirements of job and length of skid.
- Smaller machines are limited by the number of trees they can pull but are good on small jobs.
- Bigger machines can pull more logs on long skids resulting in more efficient operation.



# Knuckle boom/Log Buck

- When a tree is dragged to the decking site it is put into a pile where they are processed to be loaded onto trucks.
- The knuckleboom is used to sort the trees, put the trees onto the machine to be cut into logs and then is used to load them onto the logging trucks.
- The log buck is a built in chainsaw that is remotely operated and is used to cut the trees into manageable size logs when they are hauled to the mill.



# Log Truck

- The log truck is used to haul the cut trees to the mill where they are to be processed into usable material, boards, pallets material, railroad ties, barrel staves etc.
- Depending on location of the mill (which can sometimes be up to 90 miles away), log trucks are only able to make 2-3 loads a day and unlike conventional trucking are always a one way load.
- Depending on the size of the trees, trucks may contain only two or three logs per load or as many as a hundred smaller pine trees.



# Loggers

- Loggers are technically classified as farmers under the tax codes of the US and are no different than those that grow the produce that feeds America and the rest of the world.
- Logging is a tradition that is passed on from generations to the next in many families. On most of the crews we hire you will see fathers and sons, brothers, and cousins working side by side. It is a capital rich business and most families have their life work tied up in the machines and the upkeep they require.
- In addition to loggers, they are also mechanics because repairing their own equipment keeps the cost down and makes use of the days when it rains. All take great pride in their work and are experts in every aspect of their field.



# The Logging Process

- Boundaries and buffer zones
- Decking sites and skid trails
- Choice of tree removal locations
- Why there are large open areas in places
- Cleanup and what happens next

# Boundaries and buffer zones

- The boundaries of most improved farms are fairly obvious. In the event of questions a survey team will be called in to mark a boundary.
- No logger wants to go outside of the boundary line because they are responsible by law in the event this occurs.
- All buffer zones are measured using a laser based system to ensure the accuracy of the minimum requirement is met.
- All boundaries/buffers are marked with flags so loggers know where and where not to go.



# Decking sites and Skid Trails

- Decking sites are the point where the trees are taken to be processed and loaded on the truck.
- They are chosen so they are at a central point and close to the road and also close to where the timber is being taken.
- Skid trails are routes where the trees are taken so that only one section of the forest is affected by continuous machine traffic.
- In large jobs there might be more than one decking site. In addition skid trails are chosen to maximize efficiency and minimize footprint to the surroundings.



# Choice of tree removal locations

- The location of where to cut timber first is based on many factors. Most operations start close and work out farther. Many times other factors are involved.
- Areas that are affected by moisture might be taken first if conditions are dry.
- Need for specific trees at the mill would cause the harvest schedule to be adjusted.
- Slope of land would require that timber be harvested when there are dry conditions such as no snow or rain hence it would be removed when possible.



# Why are there large open areas in the woods?

- Very large trees are dominant by nature. Their huge crown and branches do an incredible job of blocking out the sun which prevents other trees and undergrowth from surviving.
- Initially when a large tree is harvested the area it inhabited appears empty of any vegetation or trees.
- Over time, with the addition of sunlight, up to 35 new trees as well as healthy undergrowth will thrive in the location that one single tree existed.



# Cleanup and what happens next

- With the harvest complete logging roads will be graded to reduce runoff and the tree tops left behind will become habitat for animals as well as decay to provide nutrients for future tree growth.
- Areas that needs culverts or erosion control will be attended to with regards to local laws and bmp's of the state.
- Sunlight will allow the growth of new bushes, creating new food sources and habitat for deer and small animals.
- Skid trails will become game trails for animals as well as walking, riding and atv trails for owners.

