

KID GLOVES LOGGING

BEING PRO-ACTIVE IN OUR HARVESTING OF SENSITIVE SITES AND CONTROLLING OUR OWN DESTINY

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OBJECTIVES

1. To harvest a production forest in an (environmentally / aesthetically / culturally) acceptable way at an acceptable cost; and
2. To maintain control of our operations by setting and maintaining our own standards in all parts of our business.

INTRODUCTION

- The standards we set for our harvesting operations have undergone extensive change over the last ten years. Factors considered unimportant in 1980 are now a constant reality in 1995. The RMA ensures accountability for our actions.
- Having said that, the New Zealand harvesting industry needs to avoid the "over reaction" that we see coming out of North America, where logging planning can take over five years between inception and operation, with every step along the way challenged or controlled by outside agencies.
- However, we are now required to log some sites that through environmental, cultural, historical or aesthetic reasons our standard approach and systems are not appropriate. Some special consideration is required.

This paper looks to address, from the perspective of Carter Holt Harvey Forests, Nelson, what the considerations are when we are presented with a harvesting area that forces us to think laterally and encourage innovation. The harvesting of the Company's Riwaka Block on the main Nelson to Takaka road is used to illustrate the process.

While there are factors here that will be specific to our operations, we hope that the process presented will be of application to all planners and harvesters working in our current environment.

PLANNING ISSUES TO CONSIDER

Without always being consciously aware of it, every time a planner looks at a new block a question will occur:

Will my standard tools / approaches / systems be adequate for this job?

There are times when this question may be answered immediately in the affirmative. At other times, however, it will be just as apparent that extra work will be required. This doesn't imply that every block doesn't have its own special challenges and little treasures awaiting us. What it does cover is that most of the time we have the skills and systems with us to take on the job as part of our normal planning cycle.

There are several reasons why it may be decided that standard harvesting approaches and systems are inadequate for certain areas. These include (in no particular order):

- Aesthetics;
- Environmental; including
 - Soil stability;
 - Soil and water values;
 - Flora and Fauna;
- Recreational use;
- Cultural;

- Concerns from local Residents;
- Pressure from local government.

It may be that having considered all the issues involved that the correct decision may be not to harvest *at this time*.

If we accept the challenge to extract the standing timber we are then also accepting several other things:

KID GLOVES LOGGING COMES AT A COST

EXTRA PLANNING EFFORT IS REQUIRED

In 1985, Baigent Forests Riwaka Block was coming due for harvest. It was very apparent that special consideration was going to be required to successfully harvest the forest. Reasons for this included:

- **Geology:**
Riwaka is established on separation point granites, which are some of the more unstable and erodable soils in the Nelson area.
- **Water Values:**
The Riwaka stream is a popular fly fishing stream. Also, further towards the coast are found high yielding horticultural areas, based on apples, kiwifruit and hops. Given that the Riwaka stream has a history of flood events, local residents and landowners were understandably concerned about the potential impacts of harvesting.
- **Existing Native Vegetation:**
The establishment pattern in Riwaka had resulted in ridge lines of radiata with fingers of native forest in the gullies. Several of these areas consist of high podocarp forest.
- **Aesthetics:**
The road from Motueka to Takaka climbs past and above Riwaka forest for 8 kilometres. The forest is also highly visible from Motueka and many parts of Tasman Bay.

It was recognised that to address all these considerations was beyond the technology available to us *at that time*. When harvesting commenced it was in the areas of lowest impact. The rationale was to gain small victories where possible and to establish the presence of harvesting in the area. Two self imposed conditions, set out in 1985, were important to the ultimate success of the Riwaka harvesting programme. These were:

- Harvesting of the forest was not to exceed 15% of the total catchment area in any single two year period;
- Harvesting was only to occur every second year, so as to give each harvested block the opportunity to be re-established *prior* to the next harvesting phase.

By 1995, when harvesting at Riwaka was completed, the introduction of new systems and technology, development of planning and contractor skills, etc. ensured that all areas in Riwaka were harvested to meet the two stated objectives.

One point to emphasise - whatever special measures were taken to successfully harvest Riwaka forest, these remained particular to the Riwaka operation. We would like to think that the skills we learned in harvesting Riwaka have aided our general harvesting operations, however, *the standards applied there have not become the standards for all our operations.*

OPERATIONAL PLANNING

A. General Points

- To ensure that the required outcomes are achieved, control of all aspects of the operation is very important, and that people at all phases of the operation are prepared to take ownership of their responsibilities.
- Failure to meet objectives is liable to be more significant than for a "standard" operation. At best you risk loss of face and damaged reputation. At worst you risk having an outside agency controlling significant sections of your process and operation.
- Clear lines of communication need to be defined and established between planners, operational staff, contractors and affected parties (local government in particular).

- Full disclosure is important to operational people, who should be made fully aware, in as precise a way as possible, of all requirements placed on their activities. Including a copy of the resource consent with all prescriptions is a good platform.

B. More Specific Concerns

- Consultation

By being pro-active and setting the rules we *may* be able to proceed with harvesting as a permitted or controlled activity. If this is not possible and harvesting and associated activities become discretionary with associated rights for public submission, we are no longer in control of our operation but are ourselves working under controls. Sometimes this may be an inevitable result of the set of circumstances, but as for any operation we should avoid this becoming the benchmark for all operations.

We want to demonstrate that we are responsible people capable of managing our own operations.

Therefore, it is essential that the communication process includes consultation with any and all parties who may be affected.

To obtain a resource consent that can be implemented to our standards, open dialogue with controlling authorities is essential. Dialogue has to be a two way street. Regional Planning officers must have a flexible approach when considering harvesting proposals that deliver on common outcomes.

In addition to the obvious consultation process required for resource consent communication channels may need to be established and maintained with:

- Government Agencies
 - Transit NZ
 - Department of Conservation
- Representative Groups
 - Residential groups
 - Iwi
 - Fish & Games Council

In talking with all these groups, we must have a clear understanding what it is we intend to achieve. At the end of the day compromising our standards to keep interested parties happy will not make for a long term win-win situation.

Through consultation with Transit New Zealand, approval was gained to locate harvesting landings immediately adjacent to the public road. This required the hauler tie-backs to be located across the road.

Also, a traffic management plan was formulated by both parties which allowed for the loading of trucks on the edge of the road.

- Planning Prescriptions

As covered above, these need to be precise to give the necessary level of control.

Prescriptions should include the following:

- * All outcomes identified and quantified if possible;
- * Clearly defined areas of responsibility (Operational scopes); and
- * Operational standards.

Regarding the latter, it is important to have a clearly understood and widely accepted operational standard. The *LIRO Forest Code of Practice* is an industry wide set of operational guidelines. Although we may choose to exceed the recommendations contained within the manual, these should form the minimum standards for all our activities.

- Harvesting Systems

When planning a block where care and control is the premium it may be that a single item of machinery will provide the answers to most questions. However, with the need for control on the whole operation, the selection of a system based on one factor is inadequate. Consideration must be given to selecting the most appropriate combination of technology and skills available.

- Contractor Selection

All things considered, getting the right harvesting contractor on the job is liable to be the success or failure of the operation.

Needed is a person who brings with him / her a demonstrated approach covering:

- * Flexibility;
- * Goal setting;

- * Innovation;
- * Problem solving;
- * Self and worker motivation.

They must also be able to attract and maintain a skilled, motivated workforce.

In the years after logging had commenced in Riwaka, contractors working for Baigents had taken up new machinery and had gained skills that made them more suitable for certain types of logging. By 1994, at which time only the most visible and contentious area of Riwaka remained unharvested, one contractor, Rex Kelly, had obtained the system and skills necessary to undertake the most demanding environmental harvesting areas.

His system includes a Madill 071 hauler, a Hahn processor and a Komatsu PC220 22 tonne excavator. Further to this, the company supplied for the duration of the job an Eagle II motorised carriage. The hauler has a small tower which enables operation on small landings and can also operate the full range of rope systems. The Hahn removes workers from small landings, while the excavator, common with operations around the country, is still gaining acceptance in the hauler country of Nelson where rubber tyred loaders and Bells are the norm.

More importantly, Rex Kelly had developed the attitude necessary for the type of work required. His approach is to always look for a better way to do the job, and if that fails, rather than giving up, looking for the next way to improve operations. Things have not always gone smoothly, but the company are now confident that they have a contractor who, if it is possible, will make it work.

IMPLEMENTATION

- As mentioned above, accountability for the different phases of the project need to be clearly defined and known to all parties.

A. Site Preparation and Rehabilitation

- In developing controls Carter Holt Harvey Forests; Nelson, have promoted the concept and benefits of recognising an approved Clerk of Works who is responsible for all earthworks and site rehabilitation activities. This person has the responsibility to work with all parties to ensure that desired outcomes are realised. Also, upon completion of

harvesting (including all site rehabilitation) it is important that the project is then signed off by the controlling authority. This gives the project an end!

- Methods used to achieve desired outcomes may be extended from the traditional to include:
 - * End Hauling of Roads;
 - * Protection planting of fill areas;
 - * Importing material to construct landings; and
 - * Removal of slash from landings during or post logging.

In the construction of one landing at Riwaka, the roading supervisor organised a cart to fill involving over 4,000 m³ of strippings from a nearby quarry. End haul was also used for construction of roads through native gullies.

B. Logging

- The harvesting system adopted needs to recognise a combination of machinery that best meets the needs of the site.

The system employed by Rex Kelly, utilising the Madill 071, Hahn processor, Komatsu and Bell loaders and Motorised carriage was ideal for the situation at Riwaka. The entire landing situated next to the public road has dimensions of 20 m x 18 m and was triangular rather than oblong.

The motorised carriage enabled full suspension and considerable lateral hauling capacity. It was recognised that there would be some damage to native gullies, but the control provided by the carriage helped limit this to pre-determined logging corridors.

On one section with limited deflection an intermediate support was trialed with success. One day, although this was exceptional, 270 m³ was put across the support .

- Priorities

In any logging operation there is a priority of demands which could be summarised as:

1. SAFETY
2. QUALITY
3. QUANTITY / COST

The number one priority of any harvesting undertaking must be the safety of personnel involved. As (environmental) issues force the planner to place constraints on the operational activities this becomes even more crucial.

Quality of product will still be important, but may be compromised by the need to achieve the objectives of the operation. This may involve reducing the number of logging cuts given to the crew and accepting the associated loss in potential revenue.

As constraints are placed upon the logging operation the ability of the system to produce is reduced. The target or job rate applied must recognise this. If the contractor has to worry excessively about meeting production requirements then the risk of failure to meet objectives is much greater. If nothing else, it is likely to affect the relationship between company and contractor to the eventual detriment of both.

C. Cartage

- On areas of limited landing size control of log stocks is important. Co-ordination of trucking may require special attention. This may involve having dedicated trucking, or giving this operation priority for load out. Mixing of product may be necessary to keep stock volumes to a workable level.

Although not applicable for the Riwaka job, the company is evaluating options where two stage cartage using off-road trucks may be appropriate.

D. Selling the Operation - Public Relations

This could also be called public education. It doesn't need to be extensive or expensive. As mentioned earlier, giving full public notification of impending operations can be an unwanted source of problems.

Carter Holt Harvey Forests, Nelson found that the best publicity for it's Riwaka operations was the traffic control and signage pinned to the side of the hauler listing the machinery in operation and the crew size. Although not trained or targeted to do so, the people on traffic control often gave a summary description of the operation and a running commentary on the cause of the delay. The traffic controllers also ensured the safe behaviour of members of the public who took the opportunity to watch the operation..

Harvesting is an activity that most people only see from a distance. To have the opportunity for people to observe, at first hand, a production operation is an education for them and more good will for us than several full page adverts in major newspapers would achieve.

CONCLUSION

The Riwaka Hill block provided Carter Holt Harvey Forests, Nelson, an area to develop the planning skills, harvesting systems and logging skills that we had identified as being necessary to harvest the block while preserving the values we had identified.

In doing so we have developed a framework and more importantly an attitude to take on harvesting areas which require special care.

The company seeks to define standards of performance for some operations but maintain that these are not the norm and must be evaluated on a job by job basis.

By formulating tight prescriptions and allocating clear accountability the job can be monitored and controlled to achieve the desired outcomes.

The costs, though exceeding the normal expectations for a harvesting operation need not make the operation prohibitively expensive.

We need to recognise the need to get the job right the first time. The conditions that have lead to our selection of special harvesting methods in the first place are likely to ensure that one shot is all we get. The damage to both the individual company and to the integrity of the industry from a poorly handled operation is difficult to measure, but will exceed the cost of getting it right by a large factor.