



## Railing logs in the Marlborough Sounds

### Introduction

It has been said "There is nothing new under the sun".

Around the world railing logs out of forests was one of the first methods of log transport in modern times. So in a way, Rayonier is not doing anything new by using this form of log transport. What is probably unusual is the location of the operation.

In any case, judging by the interest this operation has generated around the country, it seems a good idea to share why we opted for using rail.

### The Property

In 1993 Rayonier purchased the cutting rights to some 40 hectares of self-sown radiata pine forest, owned by Mr Robert Fisher, and located adjacent to Rayonier's Queen Charlotte Crown's Forestry Licence forests in Opuia Bay, off Tory Channel. In addition to the volume off the 40 hectares, Rayonier had some 20 hectares of regenerated *Pinus radiata* to be harvested in the same vicinity. The total volume was estimated at 25,000 to 30,000 cubic metres.

### The Bargaining Point

Early on in the harvest-planning stage it was decided that barging would be the most logical way to transport logs from



From the barging point, looking up the valley.

the block to the wharf in Picton. John Schrider of Forme Consulting Group Ltd in Wellington was contracted to do the harvest planning and acquire all necessary consents.

The starting point was to find a suitable barging point. This was quite a challenge as it became clear that there was no suitable site that would not require some

form of seabed reclamation. Eventually a site was selected that would be suitable, provided we could reclaim an area of the seabed involving approximately 50 metres of shoreline, in order to reach water deep enough for a barge with a loaded draft of 2.4 metres. Reclaiming an area involving more than 50 metres of shoreline would require public notification as part of the Coastal Consent application. The time needed for such a procedure would impact too much on timing of the operation as well as make the reclamation too costly.

### The Choice of Rail

Next challenge was to get the logs from a processing area on to the barge. This processing area site is located on a slightly raised area 300 metres from the shore line, up a very wet valley.

Building an all-weather road from the barging point to the processing area would be very expensive, due to the swampy nature of the terrain. Also, part of the access to the reclamation area would be located hard against a steep bank, making the access way very narrow. This created another hurdle in that it would not be possible to carry 11 to 12 metre logs in the beak of a front-end loader over this access road. It was, I believe, Peter Handford from Forme who floated the idea of a railway to get logs past the narrow point



The railway line showing the out-turn and the small barging point at far right.

lengthwise. I liked the idea and we decided to go for it.

A railway engineer and contractor were engaged to plan and construct a track of approximately 300 metres with an out-turn in the middle to facilitate using two carriages. The initial idea was to use the loaded carriage to pull up the unloaded one. In the end this did not work, as it appeared the fall in the track was not enough for gravity to overcome rope drag.

The system was commissioned in November 1994 and has worked well.

Both Jim Helmbright from Skylok Yarding in Picton and Ross Simonsen from Johnson's Barge Services are happy with the performance of the system to date, as is Rayonier's operations supervisor, Andrew Knowles.

### Some Advantages

The advantages in this location and method are as follows:

- No logging debris is deposited close to the shoreline by keeping the processing area a few hundred metres inland.
- Without the use of loaders running up and down a track between the processing area and barging point, sedimentation, caused by the track run-off, is minimised.
- There is no requirement for extensive reclamation work to overcome the hurdle of a narrow point in the access road.
- There is no need for expensive formation work to construct an all-weather road over swampy terrain.

At this stage I cannot see any disadvantages, although it must be realised that it is important to have sufficient log volume to warrant construction of a reclamation, as this is the most expensive part of the infrastructure.

Total costs of all the works associated with the reclamation and railway set up amounted to some \$200,000, or about \$6.50/cubic metre of log being transported in this operation. Within the next 10 years other substantial volumes could be handled using the same facilities.

**J. de Boer**

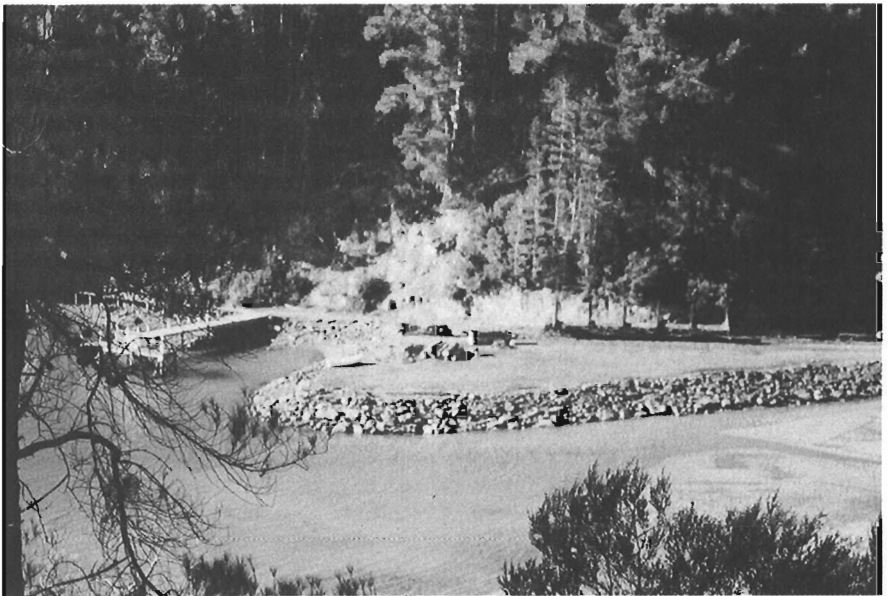
### Technical Notes

Readers from industry and research are encouraged to submit similar technical notes to the journal. Alternative methods and perspectives are of value to us all. If you have any examples of work practices or thoughts of a technical nature then please consider submitting them to the journal.

Ed.



The barging area before construction.



The barging area after construction.

### CONSULTANT RECOGNITION

The following have applied for recognition as general forestry consultants in New Zealand and overseas.

<b>Grantley Hugh Alexander</b>	<b>Rotorua</b>
<b>Maree Anne Candish</b>	<b>Rotorua</b>
<b>Jeff Nicholls</b>	<b>Rotorua</b>
<b>Lindsay William Vaughan</b>	<b>Rotorua</b>

The following has applied for recognition as a general forestry consultant in New Zealand only.

<b>Susan Clare Ruston</b>	<b>Rotorua</b>
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The following has applied for recognition as a specialist forestry consultant in New Zealand and overseas.

<b>Julian Wilfred Kohn</b>	<b>Gisborne</b>
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The following has applied for a review of recognition as a general forestry consultant.

<b>John Edmund Keating</b>	<b>Auckland</b>
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