



**FLETCHER CHALLENGE  
FORESTS**



# Health, Safety and Environment

Fletcher Challenge Forests Limited  
2000 – 2001 Annual review  
of practices and performance  
in health, safety and the environment



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# Introduction

Protecting the health and safety of our staff and contractors, and preserving our environment are top priorities for Fletcher Challenge Forests.

This year, although the company has been operating in a tough economic climate, we have continued to improve our safety performance. In fact, we have achieved company-wide ratings for Lost Time Injury Frequency and Severity which are all-time lows. These measures reflect the personal commitment of our workforce to improve safety – not only for themselves, but also for their workmates.

Environmental performance is equally important. The company aims to be a leader in this area and has a policy of meeting or exceeding all regulatory and legislative requirements. As an example, Fletcher Challenge Forests was successful with its application for re-entry into the ACC Partnership Programme. Last year the company was admitted to the ACC Programme at the primary level. This year we skipped the secondary level and progressed directly to the tertiary level, the highest level attainable. This is an unusual achievement, and reflects the high quality of the management systems that we have in place.

Another highlight was our successful application for environmental certification by the Forest Stewardship Council. This is the most credible and internationally recognised certification system currently available for forests. The criteria for certification are extremely strict and measure not only environmental performance, but social and economic dimensions as well.

As this report demonstrates, the company has the systems in place to achieve excellence in health, safety and environmental management. We have made rapid progress over the last few years. But the “easy yards” are now behind us and it will take sustained commitment from each and every employee and contractor to move to the next level. This is what we are committed to doing.

Terry McFadgen  
Chief Executive





# Overview

Fletcher Challenge Forests enjoys a close link with the environment and each day we also deal with people – people who work in our forests, and who enjoy our forests for recreational use.

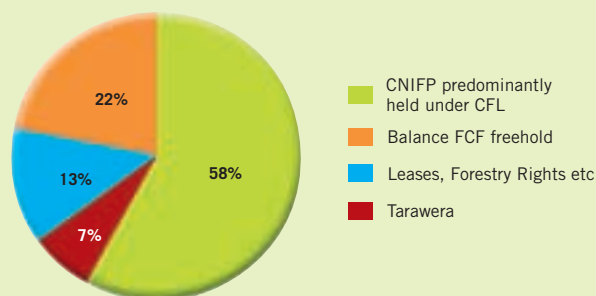
Like any business operation, our company has business objectives. But it has other objectives too – which come under the general description of health, safety and environment, HSE in other words.

The bottom line is that Fletcher Challenge Forests is committed to mitigating the impact of our operations on people and the environment. The extent to which our business will prosper in the future significantly depends on the quality of the natural and physical resources that provide the foundation for our business. Meeting statutory or regulatory requirements is just one element of that commitment. The systems we have developed ensure we actively manage our responsibilities in the areas of biodiversity, waterways protection, wildlife management, recreation and public access and protection of historically significant sites within the forest estate. We have been successful with that formula – and the result is, our business is growing!

In this 2001 Annual Report on our health, safety and environmental performance, we will deal with the aspects of the company's commitment to combining commercial forestry with the demands of New Zealand's place in the ecology of the South Pacific and the Southern Hemisphere.

As an example of the requirements facing us, let's first look at our certification by the Forest Stewardship Council (FSC). We will provide more detail later in this report, but in October 2000, we were awarded FSC certification for the total forest estate that we own and manage. This area of 360,000 hectares represents the largest certified forest in New Zealand. Gaining forest certification has involved a rigorous assessment of our forest management practices by an international audit body, Scientific Certification Systems (SCS) over a number of months during 2000, and qualifies the forest estate to be certified as a "well-managed" plantation. One of the main benefits of FSC certification will be greater environmental credibility for our products in the international marketplace.

## FLETCHER CHALLENGE FORESTS Current Planted Estate as at 30 June 2001





# Policy

**Our Commitment** Fletcher Challenge Forests Limited is committed to maintaining a safe and healthy work-place and a high standard of environmental performance throughout its processing and planted forest activities. We will give health, safety and environmental considerations equal status with the company's primary business objectives.

**Awareness** We will encourage a high degree of health, safety and environmental awareness through:

- Personal Accountability
- Commitment
- Continuous Performance Improvement
- Teamwork

**Operations** We will operate our business so that we meet or exceed statutory health, safety and environmental requirements and relevant Codes of Practice; and we will establish standards or protocols where they are known to not presently exist.

**Best Practices** We will develop and implement Best Management Practices where appropriate. In particular:

- To identify, control and monitor work-related health and safety hazards
- To avoid, reduce or control waste and pollutants
- To manage the natural and physical resources under our control in a renewable manner and to adopt practices which use energy effectively.

**Training** We are committed to training managers, employees, partners, contractors and third parties to ensure that they are competent in meeting the company's health, safety and environmental standards.

**Employee Involvement** We are committed to employee involvement in developing and reviewing health and safety management practices on our worksites.

**Continuous Improvement** We will actively monitor, audit and review procedures, processes and management systems, including objectives and targets, to ensure continuous improvement in health, safety and environmental performance.

**Planning** We will consider effects on health, safety and the environment in planning for any new developments, products and services.

**Responsibility & Compliance** Responsibility for application of this policy and compliance with the company's health, safety and environmental standards, lies with all company personnel, partners, contractors and any party working directly on behalf of Fletcher Challenge Forests.

**Terry McFadgen**  
Chief Executive

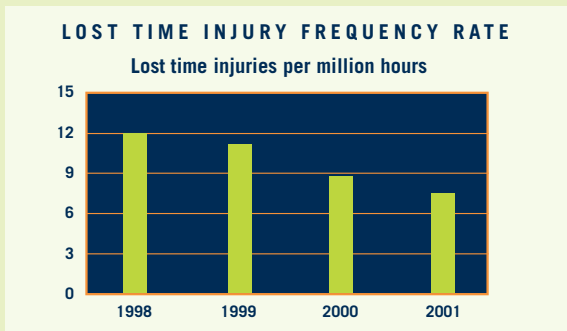
**Gavin Williamson**  
Manager, Health, Safety & Environment



# Health & Safety

## SAFETY PERFORMANCE

The number of lost time injuries has continued to decrease. A “lost-time injury” is an injury that is serious enough to require the employee to need time off work.



On average, 1,205 work hours are lost as a result of injury for every million hours worked. This compares to 1,558 hours lost per million hours worked at the end of June 2000. The total number of accepted work injury claims for the year ended 30 June 2001 was 289, compared to 308 for the year ended 30 June 2000. Total claims costs for the year ended 30 June was \$28,000 (ex weekly compensation) compared to \$26,000 for the year ended 30 June 2000.

Claims costs primarily consisted of payment to doctors for initial consultation and treatment costs from referred treatment providers such as physiotherapists and diagnostic testing (ie. Xray). Only a small number of claims required treatment beyond this primary level of care.

## SUCCESS IN ACC PARTNERSHIP PROGRAMME

Last year we reported that Fletcher Challenge Forests had gained entry into the new ACC Partnership

Programme at the Primary Level. This programme offers employers with excellent health, safety and injury management systems the opportunity to self-manage their workplace injuries. Following the recent annual continuance audit by ACC, we have been elevated to Tertiary Level status. This places us among the top 20% of companies in the Partnership Programme – which is designed to encourage eligible employers to take responsibility for their own workplace health and safety, and injury management.

By achieving Tertiary Level in the programme, we have progressed beyond compliance with minimum and intermediary ACC standards for safety management, injury management and case management and rehabilitation, to the highest level of compliance.

What this demonstrates is the company’s strong commitment to health and safety, our focus on continuous improvement, and our commitment to involving employees in decisions that affect their health and safety. It also acknowledges the improvements we have made over the last year.



## PARTNERSHIP BENEFITS

Being in partnership with ACC means we maintain our injury prevention and management systems to ACC standards. As a consequence, we are able to cover work-related injury claims for employees using the same rules as ACC, and we are able to manage the rehabilitation and return to work of each injured employee.

This arrangement provides many benefits, both to individual employees and the company as a whole. By continually improving our safety management practices, we improve our ability to prevent injuries. A further benefit is that when employees are hurt at work, their injury claim and rehabilitation is managed by people they know and who understand their working environment – helping their full recovery. For Fletcher Challenge Forests, another advantage of this approach is that we save significantly through reduced premiums.

### FLETCHER CHALLENGE FORESTS EMPLOYEE NUMBERS JUNE 2001

Area	Total Staff
<b>Manufacturing</b>	
Ramsey Roundwood	64
Kawerau Sawmill	129
Mt Maunganui Plywood	84
Rainbow Mountain Sawmill	91
Waipa Remanufacturing Plant	42
Mt Maunganui Wood Processing	126
Taupo Mouldings Plant	91
Taupo Sawmill	173
Waipa Sawmill	188
Kawerau Remanufacturing Plant	115
<b>Total</b>	<b>1,103</b>
<b>Forest &amp; Logs</b>	<b>215</b>
<b>Corporate</b>	<b>177</b>
<b>Totals</b>	<b>1,495</b>

## HOW WE DO IT

The key features of our approach are our commitment to safety, our focus on involving employees in decisions that affect their safety, our ability to communicate safety information in ways that are easily understood, and our focus on continuous improvement.

We have three key safety policies – the HSE policy, the drug and alcohol policy and the rehabilitation policy. These form a foundation for all our activities. Priority is given to safety performance in all management meetings, and all managers and employees are measured against their contribution to overall safety performance each year.

## EMPLOYEE INVOLVEMENT

All sites have Health, Safety and Environment Action Groups that are made up of elected employee representatives. These groups meet monthly to discuss safety issues that are difficult to resolve. These groups annually set objectives and work to achieve them.

HSE Action Groups are given the opportunity to comment on policy or procedural changes, and ideas relating to company-wide health and safety (or well-being initiatives) before they are finalised and implemented. Employees are encouraged to forward any safety concerns to their HSE Action Group representative.

This year, employees had the opportunity to express their ideas and concerns relating to safety in two separate safety surveys conducted across all manufacturing operations. Over 600 of our employees responded to the first survey and over 500 responded to the second survey. Results of these surveys were communicated to management and all employees.





## CLEAR SAFETY COMMUNICATIONS

HSE bulletins are distributed monthly to all our operations for discussion amongst employee teams. These bulletins address safety issues and remind our people how to work safely. All safety policies are displayed in key work areas, posters explaining important procedures and information are put up around our sites, and important safety information, including policies, procedures, safety reporting forms, and safety performance information is posted on the company's internal "extranet".

Our safety systems cover the company's legal requirements and meet ACC's tertiary standards. We received special commendation during our recent ACC audit for our hazard management and safety training systems.

Last year we developed a hazard database system that allowed for the easy capture and reporting of hazard information. In the past 12 months, we have developed the system further and it was recently installed on the Kawerau site network system, so that all employees have the ability to view the hazard register for their work area. Managers and supervisors can print off the relevant hazard information for use during induction and training sessions.

During the past 18 months our Kawerau mill site has developed and implemented a comprehensive new safety training system. This system takes three months for a new employee to complete, and is structured around three levels of competency from "full supervision needed" through "select supervision needed" to "able to work unsupervised".

The system not only ensures that new employees stay safe, it ensures that employees who have worked on site for a long time also have the appropriate level of competency for the tasks they are performing. This system is also used for existing employees who move to a new machine centre or who are introduced to a new task.

## CONTINUOUS IMPROVEMENT

Fletcher Challenge Forests follows a comprehensive internal health and safety audit programme under which we conduct six-monthly audits at all manufacturing operations.

Recent audits have focused on the principles of the Health, Safety and Employment Act 1992, and have been based on the ACC Partnership Programme audit tool. These audits provide an opportunity for sites to review their internal health and safety management systems and to be advised on possible improvements.

The "corrective actions" identified during each audit are entered into a database. Each corrective action request is time framed with clearly assigned responsibility for completion. Equally important to safety management practice is our ability to manage any work injuries that occur. To do this effectively we have contracted the services of a third party, Catalyst Injury Management Limited.

The company provides case and claims management services to our employees, and this complements our existing safety management practices. We have completed the first year of our alliance with Catalyst Injury Management and feedback from the ACC Partnership auditor stated that both organisations are working well together. There has been a strong focus on early intervention. The case manager has worked closely with the site HSE co-ordinators to provide efficient injury prevention and injury management services. The effectiveness of this process was supported through focus group interviews during the ACC Partnership continuance audit.

## ON THE ROAD

Fletcher Challenge Forests manages 280,000 hectares of production forest and each year millions of tonnes of wood products from that forest are trucked onto the roads in and around our estate.

We deliver 6 million tonnes of wood product to customers annually, using a network of 150km of sealed arterial roading and 1500km of unsealed arterial and secondary roading, as well as the public roading network.

We strive to minimise the impact that our operations have on public roads, mindful of the sheer volume of timber our estate produces and the effects that heavy transport can have on roads which are also used by the public.

Nearly 60% of the volume of wood product moved each year is transported “off-highway” and not on public roads. Fletcher Challenge Forests also makes the use of rail transport a priority wherever possible, and there are major transfer points onto rail at Kawerau and Murupara. When we do have to use public highways, over half the fleet will operate on a 24-hour basis, reducing road congestion as much as possible during the day. Our company strongly believes in road safety. As a public service, we require operators carrying our products to display both an 0800 phone number and a truck number, so that the public can comment on the drivers’ behaviour on the road.

Load safety is also a major issue within our transport operations. We have identified potential hazards inherent in log transport operations, and by changing our procedures, these have been minimised – often beyond legal requirements. One example is the development of a three-packet

trailer specifically for the cartage of 2.65 metre logs. This has eliminated the chance of these short logs dislodging while they are being transported. The use of double-bunk trailers is also encouraged, to cut down load heights and make the truck and trailer units more stable on the road. As well as our own hazard identification system, we also support initiatives introduced by the Log Transport Safety Council and the Forest Owners’ Association transport committee, to improve the safety of truck operations.

Our major log transport partner, Forest Distribution Limited (FDL), has also put into place a range of initiatives in the past 12-18 months to improve its safety performance. These initiatives not only reduce the safety risk to the public but also the risk to FDL employees and people travelling and working throughout our estate and roading network. FDL has instituted a “3-strikes” policy to monitor drivers’ conduct. A “first-strike” breach of FDL policy results in a warning, a second brings a two-day stand-down and retraining, and after a third strike a driver is stood down for three months.

In another pro-active move, FDL has appointed its own health and safety manager to work with our health and safety teams and other forest partners.



Fletcher Challenge Forests also transports significant volumes of lumber, wood chips and residues and has two major “alliance” partners to do this – Fibre Logistics Limited (comprising TD Haulage and Godfrey Transport Limited) and Lumber Logistics Limited.

Fibre Logistics has launched a number of safety initiatives and improvements that have brought good results during the past year. The company employed a health and safety manager in September 2000 and has developed its own health and safety manual. Fibre Logistics enforces minimum standards for its drivers, including “W” endorsements for loader drivers. This is an NZQA course that ensures truck drivers are sufficiently trained to operate the loaders provided at various sites. TDH has received a 15% ACC reduction in April of this year, and Godfrey



Transport is seeking a 20% reduction in December. Lumber Logistics has a good safety record and as at 1 June has worked 349 days without a lost time injury.

## SAFER HARVESTING

At the end of July 2001, Professional Harvesting Systems or PHS (a contracting alliance to Fletcher Challenge Forests) had been free of lost-time injuries, or LTIs, for two years. This is an excellent achievement by PHS, as harvesting operations are traditionally the most dangerous aspects to forestry.

The main reasons for the decrease in accidents are:

- employment of a Health and Safety Manager
- a “safety champion” within each crew
- a structured training programme
- monthly safety audits on the crews
- regular safety meetings and information distributed to crews
- commitment from company directors
- commitment from contractors
- a willingness from the employees to learn and take responsibility for their own safety and the safety of others
- increased mechanisation.



# Environment – Forestry

## FOREST STEWARDSHIP COUNCIL CERTIFICATION

The environmental highlight of the year for Fletcher Challenge Forests has been our recognition by the Forest Stewardship Council (FSC) – an independent, internationally recognised body which promotes responsible forest management around the world.

The Council strongly emphasises the importance of environmentally responsible and socially beneficial management of forests, and ensures the quality of its certification process by requiring all qualifying companies to be audited annually.

Fletcher Challenge Forests is the largest company in New Zealand to have been awarded the FSC “well-managed” plantation certification. In fact, we have one of the largest exotic plantations in the world to be FSC-certified – the total 360,000ha that we own or manage have been recognised by the Council.

The Forest Stewardship Council awarded us its Forest Management Certification in October 2000, following a comprehensive audit of our forest management practices and systems. The assessment to FSC principles and criteria was carried out by Scientific Certification Systems Limited (SCS), an independent accredited certification agency based in California, and its team included experts in forest management, social science, economics and ecosystem management. The assessment was rigorous and involved consultation with a wide range of employees, contractors and stakeholders.

FSC certification assists our company to access the important North American market including the

Home Depot and Lowes, two of the world’s largest home improvement and “do-it-yourself” retailers.

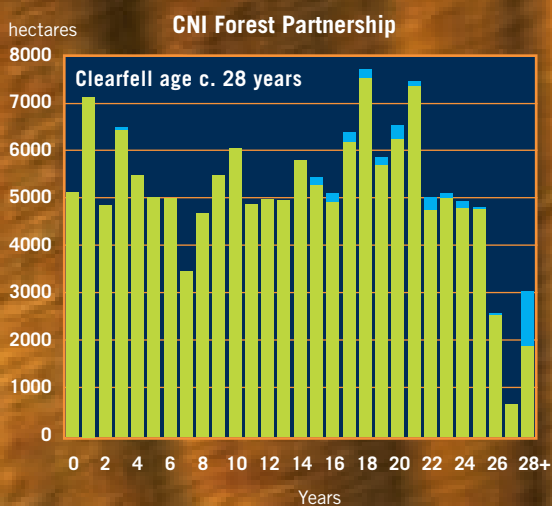
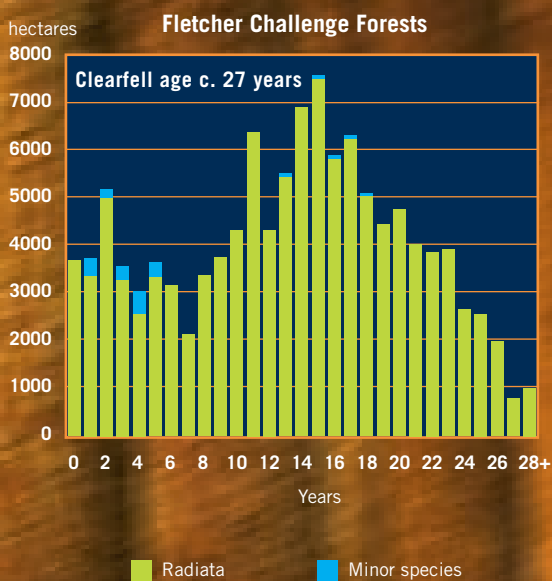
Currently almost all of the output from the Taupo Sawmill and Mouldings Plant, together with much of the output from the Mt Maunganui Remanufacturing Plant, finds its way to these crucial North American customers. Some of our customers in Asia also want to buy FSC-certified raw materials, and for the same reason – they want continued access to the American and European markets.



Another arm of the Forest Stewardship Council's certification is called “Chain of Custody”. This allows wood products that can be formally tracked through the supply chain and are found to originate from FSC-certified forests, to be branded with the FSC logo.

This enables our company to be able to make certain market-place environmental claims. The FSC “brand” has credibility internationally because of the independent third party assessment and also because of ENGO (environmental non-government organisations) support.

## AGE PROFILE OF RADIATA PINE 30 June 2001



Late in 2000, we also achieved Chain of Custody certification for four manufacturing facilities (Taupo Sawmill, Taupo Remanufacturing, Waipa Sawmill and Mt Maunganui Remanufacturing plants). The Chain of Custody guarantees to a customer that the product or an agreed percentage of the product is made from wood sourced from an FSC-certified forest.

### SURVEYING NATURAL AREAS

Within the Fletcher Challenge Forests managed estate are many areas of high environmental and ecological value. In and around our forests lie various “natural areas”, sites of mostly indigenous vegetation that often support important plant and animal communities.

In February 2001, Fletcher Challenge Forests commissioned Wildland Consultants, an ecological consulting firm, to carry out a survey of these natural areas within our managed estate.

The work stems from the findings of the October 2000 Certificate audit of the international Forest Stewardship Council, and has several objectives:

- to identify, evaluate and document the natural areas within our managed estate
- to establish a monitoring program for these natural areas
- to identify their management requirements.

There is a two-part rationale behind the survey. On one hand it aims to promote forestry management practices that do not impact on the “indigenous biodiversity” within the estate – in other words to protect the range of plants and animals living in a particular area. On the other hand it actively seeks to promote the sustainable management and enhancement of both the land areas themselves and flora and fauna.



The project is being carried out in two stages over a period of five years. First up was a “desktop” assessment – using computer-based geographical information systems (GIS) to measure natural areas within our plantations – which was completed in May 2001. The work included a comparison of the size of natural areas in relevant ecological districts and bioclimatic zones. (Note: “Ecological districts” are divisions based on similar geology, climate, soils, landforms and vegetation. They emphasise the uniqueness of indigenous communities and are a valuable tool for conservation planning. “Bioclimatic zones” are defined on the basis of the plant species that occur there.)

The second stage of the project – a field assessment – includes collecting information on the extent, character, condition and management priorities for each natural area surveyed. The data is mapped and collated in a computer database, which is linked to the company’s geographical information systems.

Four ecological districts (out of a total of 22 which our forests fall into) have been identified as high priorities for survey. These are Kaingaroa, Te Teko, Tokoroa and the semi-coastal bioclimatic zone of the Rotorua Lakes Ecological District. Some sites in the Kaingaroa Ecological District have already been surveyed in a 1996 assessment of wetlands and stream-side sites in the previous Forestry Corporation of New Zealand (now the Central North Island Forest Partnership or CNIFP) estate.

The methodology being used in the survey is supported by various environmental groups in New Zealand, which will give the resulting information added value as an important environmental document.

The survey will also give Fletcher Challenge Forests and our stakeholders an accurate and detailed

overview of exactly what is “living and growing” within our exotic plantation estate.

## **CONTROLLING A FOREST PEST**

*Pinus contorta* is a species of pine that poses a significant threat to New Zealand’s natural environment. It is a fast-growing tree with an aggressive ability to self-seed, and could easily change the landscape in our National Parks, for instance, if it is allowed to spread.

The North American species was planted in New Zealand during the 1920s and '30s as a complementary production species in Kaingaroa Forest and was also used by earlier settlers for shelterbelts. Self-sown *contorta*, particularly in non-stocked areas of the upper Rangitaiki catchment in the Central North Island, is an issue. Infestations can affect sites with high conservation value, particularly amongst slow-growing native vegetation.

For this reason \$105,000 was spent during the 2000/2001 year across approximately 400 hectares of land, on a combination of chainsaw, slasher and hand-pulling of *contorta* seedlings. Approximately \$90,000 has been allocated for similar work next year. One of the key aspects of *contorta* control is the need to revisit blocks every 3-4 years following the initial physical control work, to pick up any germinating seedlings.

We have developed a close working relationship with the Department of Conservation over the *pinus contorta* problem, and a combined *contorta* co-ordinating committee is active in the Rangitaiki area. This includes representation from local councils, large private landowners, DOC and ourselves. This group, with the contracted help of Wildland Consultants, has surveyed the area and helped put together a management strategy to confront the issue.

## FALCONS IN KAINGAROA FOREST

New Zealanders see its portrait each time they spend a twenty dollar note, but many will never have seen the real thing – the unique New Zealand falcon, or “karearea”.

While they are relatively small birds, our falcons are nevertheless powerful enough to reach astonishing speeds in search of their prey – up to 230km/h on the dive. These birds mean business – and a *mean* business it is too – killing their quarry such as sparrows, finches, and pigeon on high-speed impact! Sadly, despite its lethal hunting skills, the New Zealand falcon is listed as a threatened species, with numbers declining in the wild.

Since 1994, the Wingspan Birds of Prey Trust has been monitoring breeding pairs of falcons found within Kaingaroa Forest. Sightings of falcons in other regions are investigated too, but the Kaingaroa project is of international significance since these birds have never before been documented living or breeding in exotic forests. Interestingly, research to date indicates patterns of breeding behaviour which linked with the management of forestry compartments.

Wingspan’s founder, Debbie Stewart, has discovered that courting and nesting birds tend to favour compartments of cutover to first year plantings – particularly

those neighbouring mature stands. It also seems that intersecting skid sites and the heaps of branches, soil and vegetation left in the forest after felling, are being used by young falcons nesting nearby to climb, shelter in, and to help them learn to fly.

Recent study of falcons within the Kaingaroa compartments is encouraging. Wingspan Trust members found a pair at a nest containing three eggs, and were able to band and release the female. The Trust was hoping to band the male and any offspring at a later date. Fletcher Challenge Forests is offering assistance whenever we can.

## PROTECTING “HISTORY” IN THE FOREST

While Fletcher Challenge Forests is primarily concerned with growing and harvesting our commercially grown trees, there are instances where “history” plays a role in the company’s thinking.

During the company’s recent assessment for recognition by the international Forest Stewardship Council (FSC) the biodiversity value of various old stands of trees was raised – in particular some of the remaining “old growth” areas – mainly radiata and Douglas fir and some minor species stands and remnants.

It was recommended that the company should consider “protecting” some of these planted remnants and we agreed on 1 June 2000 to place a “restricted” status on stands as follows:

- radiata pine 1955 plantings and older
- Douglas fir 1940 plantings and older – all minor species.

This restricted status means that non-production values must be formally evaluated before FCF considers harvesting any of these stands. The values assessed include:





- flora and fauna
- genetic significance
- historical and/or training resource, opportunities for research, aesthetics
- species diversity (biodiversity).

If the company's experts and the forest owner recommend protection for some or all of a particular stand, the forest manager specifies that this stand or remnant be placed under a "protected" designation. From that point, current company policy requires that these stands are not harvested.

At 30 June 2001, we have "protected" 25 stands, some of which have stood since 1904, and covering at least 12 different tree species.

The size of the protected stands ranges from 0.1ha to 14.7ha and together total 60ha.

Fletcher Challenge Forests is progressively assessing the biodiversity values in the remaining restricted stands, which are widely scattered throughout the estate.

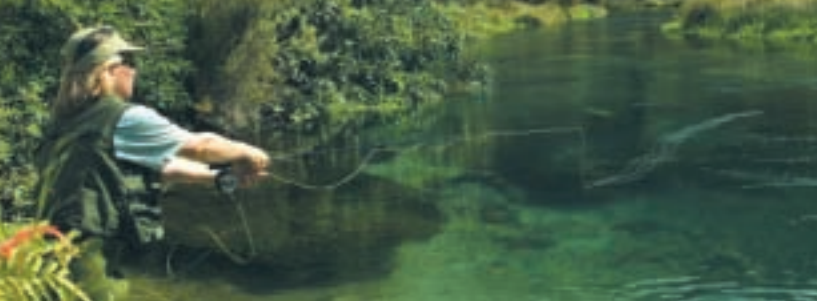
## MEETING OUR LEGAL OBLIGATIONS

Fletcher Challenge Forests continues to work hard to meet environmental requirements placed on us through the Resource Management Act.

From time to time, we are served with notices under the Act in relation to some of our forestry operations. These notices range from infringement notices – viewed in much the same way as a traffic violation ticket issued to a motorist – to the more serious abatement notices. Fletcher Challenge Forests has only received three such notices in the last two years.

These various notices create greater awareness of the environmental obligations all of our operational staff and strategic alliances have under the Resource Management Act. They underscore the need for our company to follow best practice guidelines and maintenance schedules to the letter.

- As we reported in last year's HSE Annual Report, we received an abatement notice from the Auckland Regional Council (ARC) in May 2000. It was for a breach of resource consent and formally required installation of runoff and sediment controls at a harvesting operation managed by us in North Auckland. The company promptly completed all works necessary to meet the ARC standards, and we engaged a professional consulting ecologist to assess the impact of the operation on the nearby stream environment. The consultant concluded after a full field evaluation that there was no evidence of harm to the stream ecosystem.
- In September 2000, the ARC issued an "infringement notice" as a followup to its abatement notice for the original non-compliance with the resource consent. The fine totalled \$1050. The ARC did not consider any legal or court action was warranted because Fletcher Challenge Forests had fully and professionally followed up the abatement notice and the effects of the non-compliance on the environment were minor.
- On 21 September 2000, Environment Bay of Plenty issued an abatement notice for a localised section of earthworks and tracking in the Mangorewa Catchment of Pinnacles Forest. The council submitted that there had been insufficient maintenance of the site's storm-water (runoff) control structures and insufficient revegetation of these works. This resulted in "discharge of sediment onto land in circumstances which may result in the sediment entering water". Once again the company quickly put in place all remedial requirements in line with the abatement notice. We are pleased to report that the council did not pursue court action but, like the ARC, issued an infringement notice, which again carried a fine of \$1050.



## RECREATION IN THE FOREST

To some, it is known as Whakarewarewa Forest, to others Tokorangi Triangle, but to most it is known more simply as “The Redwoods”. The forest and Visitor Centre are managed by Fletcher Challenge Forests on behalf of the Rotorua District Council. The forest is a multipurpose sustainable commercial resource, with extensive recreation areas for a number of activities. It is a tourist attraction with appeal to both domestic and international visitors. The Visitor Centre is set beneath the towering redwoods right as you enter the forest. Staff are on hand to provide information and advice. They also manage, maintain and improve the recreational facilities and trails for public use.

The most popular part of the forest available for recreational use is the Tokorangi Triangle. It encompasses 288 hectares of native and exotic trees. 170 tree species from all over the world were originally planted there in 1901. The intention was to compare growth rates of the trees to determine the species most suited to commercial harvesting in the Bay of Plenty. Radiata pine’s outstanding comparative advantages were discovered as a result of these plantings.



There is a wide range of activities available in the forest for all levels of fitness and abilities including:

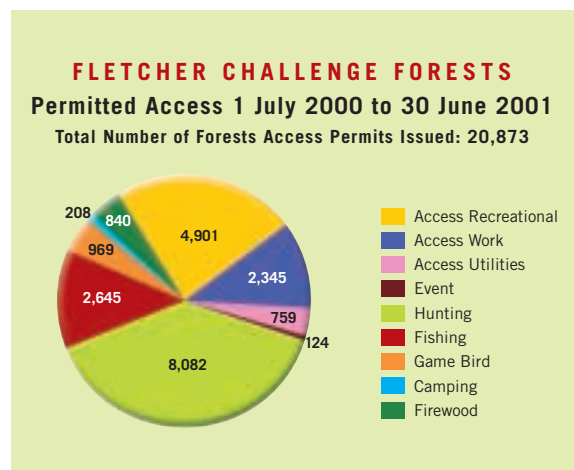
- Walking/running
- Tramping
- Mountain biking
- Horse treks
- Guided tours
- Orienteering

Other activities offered include:

- Meeting room hire for internal and external functions.
- Local businesses run laser sport, paint ball and bike hire
- Picnics for family/group activities.
- Souvenir and gift shop

The Visitor Centre is funded by Fletcher Challenge Forests and receives a management fee from the Rotorua District Council. It accommodates over 186,000 visitors per year at no charge.

Other forests managed by Fletcher Challenge Forests also support a range of recreational activities. Below is a graph showing recreational and other use for forests except Whakarewarewa.



# Environment – Manufacturing

## ROUND WOOD TREATMENT

Rainbow Mountain, south of Rotorua, is the base for our Ramsey Roundwood division, one of the largest manufacturers of “round wood” products in New Zealand, and a major contributor of treated wood to the country’s grape-growing, agriculture and construction industries.

Producing in excess of 60,000m<sup>3</sup> of wood each year, Ramsey Roundwood specialises in producing copper-chrome-arsenate (or “CCA”) treated products – a wood preservative method which has been used commercially in countries around the world for many years.

The Ramsey Roundwood operation has significantly increased its wood production levels in recent times and has shown overall growth in operations of more than 30% during the past two years. (And at the same time, has managed to keep its site free of Lost Time Injuries for two years.)

While production has increased, improved efficiencies in parts of the plant have actually reduced the amount of preservative being used. Sophisticated chemical analysis equipment gives plant operators a highly accurate measure of the preservative solution’s strength. This eliminates “over-treatment” of the wood, and ensures that the minimum amount of chemical is applied.

This process achieved a 10% decrease in chemical use this year at Ramsey Roundwood, and more savings are on the way. It’s likely another 10% reduction will result from fine-tuning treatment processes at the plant over the next 18 months to two years.





## TREES HELP TO CLEAN UP KOPU

Fletcher Challenge Forests is taking a creative approach to managing an old wood waste dump near Kopu, at the base of the scenic Coromandel Peninsula. With scientific help from HortResearch New Zealand, the company is moving away from the traditional “time capsule” approach the world has used to deal with waste dumps.

In the past, the management technique was to try to seal in leachate by capping the dumps with a top layer of clay or similar material. That is a very expensive option, it isn't totally effective and it does nothing to treat the contents of the landfill.

The Kopu wood waste dump covers 4.3 hectares and contains sawdust, shavings, bark and general wood waste to a depth of 15 metres. Water and leachate from the old dump is now pumped up from below and passed through a spray irrigation system onto the dump site. This process means there is no discharge of leachate into nearby streams.

Also to attack the underlying problem of the dump, Fletcher Challenge Forests is looking to a special process which uses the “vacuum-cleaning” powers of trees. Phytoremediation is the scientific term, but it basically means the use of green plants and trees to remove or make harmless a range of contaminants in the ground. The Kopu dump site has been planted with a range of poplar and willow species specially bred by HortResearch – and once they are established, HortResearch scientists calculate they will reduce the leachate loading on site by up to 70%.

As well as cutting down the production of leachate from under ground, the trees absorb any heavy metals from the wood waste pile – and at the same time improve the aeration of the soil and help to break down wood wastes.

Scientists are also considering injecting the wood waste with white-rot fungi to help break down other contaminants still in the dump. The groundwater and surface water at Kopu will be monitored, and tissue samples will be taken from the trees to gauge the uptake of any contaminants such as copper, chrome, arsenic and boron. Soil samples from the landfill will be regularly analysed to identify any trends emerging from the process.

Eventually, the trees will be cut above ground level and then allowed to grow again. The material cut from the trees can then be removed from the site – along with any contaminants it contains – and disposed of appropriately.



## Review Statement

To the members of Fletcher Challenge Forests

We have reviewed the information contained in the Health, Safety and Environmental report for the year ended 30 June 2001. Our review was made in accordance with the Review Engagement Standards issued by the Institute of Chartered Accountants of New Zealand. In conducting this review, reference was also made to the Guidance on Verification, contained in the Global Reporting Initiative, issued by the Coalition of the Environmentally Responsible Economies (“CERES”).

### Reviewer’s Responsibilities

We have been engaged to carry out a review engagement to verify the information contained in the Health, Safety and Environmental Report for the year ended 30 June 2001.

### Basis of Review

The review consisted of enquiry, analysis and discussion of information provided to us by Fletcher Challenge Forests. Our review included visits to selected Company locations where we:

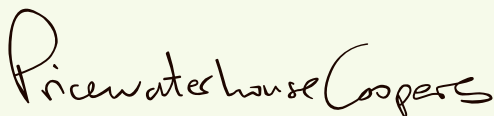
- conducted interviews with management and staff;
- obtained information regarding the basis of preparation of the information; and
- performed reviews of corporate records and other relevant source documentation.

A review does not constitute an audit and consequently we do not express an audit opinion.

### Review Findings

Based on our review, nothing has come to our attention that causes us to believe that the information contained in the accompanying Health, Safety and Environmental Report has not been properly compiled and fairly presented, in all material respects.

In addition to this review statement a detailed report on our verification methodology findings and recommendations has been provided to Fletcher Challenge Forests management.



Chartered Accountants  
Auckland, New Zealand  
28 February 2002