

BECOMING FOREST-FRIENDLY

An Eco-Kit for Law Firms



Oolangolah water catchment, Otways. PHOTO: E.GREIG, 2001

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Victoria  **Law Foundation**

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The aim of the “Forest-Friendly” Eco-Kit (**the Kit**) is to detail some easy, cheap and effective ways for your firm to reduce the impact it has on our environment and, in particular, our native forest resources. Chapter One sets out why this Kit is needed and briefly examines the current state of native forest logging in Victoria, highlighting that the industry is dominated by clearfelling for woodchips to make paper, both in Australia and overseas (more information on this is set out in Schedule 1). Law firms are huge users of paper products with even medium-sized firms consuming millions of sheets of copy paper each year. The paper used tends to be bleached brilliant white and made from native forests, including old-growth, and plantations that may not be sustainably managed.

Chapter Two summarises how the Kit works while Chapters Three and Four provide guidance on starting your firm along the road to becoming “forest-friendly”. To begin requires an initial commitment of resources and the undertaking of an Audit (possibly using the Audit Sheet located at Schedule 2) to gauge the current situation at your firm.

Chapter Five examines office copy paper in some detail, putting the spotlight on Reflex paper, one of the highest selling office copy papers in Australia. Reflex is produced by Paperlinx using wood pulp sourced from native forests and plantations in the Gippsland and Central Highlands regions of Victoria, as well as imported pulp from South East Asia and South America. Some of these forests are a combination of the following:

- old-growth;
- high conservation value;
- in water catchment areas;
- threatened species habitat.

High quality and price competitive alternatives exist and are to be preferred. Law firms choosing these alternative, environmentally-friendly paper products make a real and positive difference to the future of our precious forests.

Equally as important as environmentally-friendly copy paper is the implementation of some simple initiatives to reduce resource consumption. For example, the best way to almost halve paper usage immediately is to install duplexers (devices that allow double-sided printing or copying) on all printers and photocopiers. In addition, staff should be encouraged to print only if necessary and then always double-sided and, for drafts, four pages to a sheet.

In Chapter Six we examine the use of “forest-friendly” office fit-out materials and furniture. In Chapter Seven the focus is on the highly contentious proposal to burn trees to produce energy.

The remaining Chapters cover other simple means to ensure your firm has the smallest environmental “footprint” possible. Topics covered include recycling (paper, glass, plastics, metals and organics), buying recycled-content products, and minimising energy and water use. The final Chapter is devoted to useful references and further reading.

Schedule 1 examines native forest clearfelling in Victoria. Schedule 2 provides a basic Audit Sheet to help record the current environmental “footprint” of your firm. Finally, Schedule 3 is a Checklist to assist your firm in implementing the suggestions contained in this Kit and progressively reducing that “footprint”. It is divided into achievable short-term, medium-term and long-term goals.

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1. WHY A “FOREST-FRIENDLY” ECO-KIT FOR LAW FIRMS?

Lawyers for Forests, Inc. (LFF) is an independent, non-politically aligned association of legal professionals working in the corporate, government and community sectors and at the Victorian Bar. LFF was established in 2001 in response to growing concern among members of the legal community about the continuing destruction of the last remaining old-growth and high conservation value native forests in Australia.



Old-growth forest at Dingo Creek, Errinundra Plateau after clearfelling. PHOTO: TONY QUOLL, 2002

- ⦿ Since European settlement over 90 percent of Australia's original, old-growth forests and three quarters of our rainforests have disappeared, with a majority of the remaining forests highly disturbed by industrial logging. Today, native forests cover just 5 percent of Australia's land area, rainforests half of 1 per cent and old-growth forests under 1 per cent.
- ⦿ Much of the surviving native forest estate continues to be cleared at a rapid rate with up to 90 per cent earmarked for export as woodchip. The volume of export woodchip has almost trebled in the past 10 years to an annual figure of 7 million tonnes, ostensibly to feed the international pulp and paper markets. A large amount of native forest trees are also chipped to supply pulp for the domestic paper market.
- ⦿ Each year Australia imports 1 million tonnes of highly processed wood products, including paper, at an annual deficit of \$2.2 billion.
- ⦿ Most of Australia's native forest woodchips are obtained from Tasmanian forestry clearfelling large sections of ancient old-growth and threatened species forests (see below under Schedule 1 for a more detailed examination of the impacts of clearfell logging).
- ⦿ This “forest management” regime can dramatically affect complex forest ecosystems and may contribute to local species extinctions and reduced water yield and quality. It can also lead to the drying out of a previously wet forest, leading to more frequent fires and a change in species mix. Whether by design or not, it is often a precursor to the establishment of monoculture “plantations” which tend to possess few of the qualities of diverse, old-growth or high conservation value forests, such as being suitable habitat for endangered species.
- ⦿ Native forest logging is highly subsidised by the taxpayer and the publicly-owned trees are sold to woodchipping and sawmilling companies at low rates that fail to take into account all

relevant costs. This unfairly advantages the native forest logging industry over the plantation sector (see below under Schedule 1 for more information).

- ⊙ Additionally, Australia, now officially has the developed world's¹ -
 - > highest per capita greenhouse gas emissions. Refusing to sign the Kyoto Protocol is exacerbating this unenviable position. Victorians are, in fact, the world's worst per capita greenhouse gas emitters;
 - > worst land degradation (percentage of arable land affected);
 - > highest biodiversity loss (in terms of recent species extinctions, including 22 mammal species lost since the arrival of Europeans);
 - > highest per capita water use (despite being the driest inhabited continent); and
 - > second highest per capita production of waste (after the USA).

Many law firms are concerned about and aware of the fact that they use large amounts of paper annually. In response, LFF felt compelled to prepare this Kit to inform law firms of the many alternatives that exist for all native forest-sourced products. These alternatives are:

- ⊙ high quality;
- ⊙ price competitive,
- ⊙ widely available; and
- ⊙ readily substitutable for the products that are presently used in most law firms.

This Kit is a basic, step-by-step guide for your law firm to reduce its ecological “footprint”. It draws together information and hints from a range of reputable sources and presents them in an easy-to-use format.

By following these simple, practical suggestions your firm will not only help save our remaining native forests and protect our natural environment, but it will also save money. You may also choose to use your decision to take up the “forest-friendly” challenge as a marketing tool to impress current and prospective clients. Further, adopting the suggestions laid out in this Kit may give your firm a competitive advantage over other leading law firms to assist in attracting the best law graduates and other staff who value the environmental credentials of their potential employer.

2. HOW DOES THE KIT WORK?

2.1 Introduction

Rather than being a complete environmental management system (EMS) for law firms which would analyse all of the firm's activities to determine total environmental impact, the Kit focuses predominantly on products sourced from native forests as this is LFF's primary area of concern. However, at the end of the Kit we have included several sections dealing with other useful means of “greening” your law firm which, ideally, would be implemented in conjunction with the “forest-friendly” tips to establish a more comprehensive and integrated EMS to further reduce your firm's environmental “footprint”².

2.2 Components

The Kit comprises –

- ⊙ this extended guide (**Guide**);
- ⊙ a form to assist in carrying out a firm-wide baseline study (**Audit Sheet** – see Schedule 2);
- ⊙ the associated checklist (**Checklist** – see Schedule 3) with references back to the Guide.

¹ M.Krockenberger, *Economics and the Environment* quoting the “State of the Environment 2000 report”, May 2002.

² See Chapter 12 for a list of publications and organisations that can help in establishing an integrated EMS.

2.2.1 GUIDE

This Guide highlights the issue of office paper use. It may surprise you that part of the solution we are advocating is simply that you avoid some brands of paper products. The Guide lists several high quality paper products that we recommend and some suppliers who stock them. Naturally you should also request your regular stationery suppliers to stock environmentally-friendly brands, such as those referred to in this document. The Guide will also help you explore other relevant issues, including resource use reduction, ethical superannuation, energy use, and recycling.

Our market survey found that many of the products recommended in this Kit are, on average, extremely price competitive with their less environmentally-friendly equivalents. Further, where some additional capital outlay is required, such as to buy or lease duplexers (for double-sided copying) and energy-efficient office equipment, this expenditure tends to be quickly repaid with future savings, for example, in reduced paper and electricity usage. In fact, implementing all the suggestions contained in this Kit has the potential to **SAVE YOUR FIRM SIGNIFICANT AMOUNTS OF MONEY.**

The quality of most recycled products has advanced considerably since their introduction. All the brands on the market have undergone extensive trials in the office environment to ensure they are compatible with office equipment. (For a discussion of an independent trial that compared recycled papers with virgin-pulp papers see section 5.3.2(B) below.) Some office equipment manufacturers and suppliers warn about voiding of new equipment warranties if the manufacturer's proprietary-protected inks and cartridges are not used. However, these claims often reflect self-interest and may, in some cases, breach the misleading or deceptive conduct provisions of consumer protection legislation, such as those contained in Part V of the *Trade Practices Act 1974* (Cth). Of course, our advice is always to check warranty information and conduct comprehensive initial trials of products, such as environmentally responsible paper and toner cartridges, in your office equipment.

2.2.2 AUDIT SHEET

The Audit Sheet (Schedule 2) enables you to undertake an initial assessment of your firm's current use of products and processes. The audit establishes the baseline and the foundation on which your "forest-friendly" law firm can be constructed. After several months of implementing the suggestions contained in the Guide, the initial audit can be revisited for comparison purposes. An assessment may then be made as to whether the changes have been successfully implemented and what effect those changes have had on your firm, including staff and client satisfaction and the firm's bottom-line.

2.2.3 CHECKLIST

The Checklist (Schedule 3) component of the Kit is designed to help you plan and implement changes in the-

- **short term:** easy and essential changes to immediately reduce your firm's environmental "footprint";
- **medium term:** incremental changes to implement within a few months of the initial improvements; and
- **longer term:** changes requiring a more substantial capital outlay but which will ultimately reap economic as well as environmental benefits for your firm.

The Checklist refers the reader back to this Guide for a more comprehensive examination of issues. Keep the Checklist at hand as you read this Guide.



3. THE COMMITMENT

As a first step, we invite you to formally agree to embrace a “forest-friendly” approach and expand your firm’s commitment to environmental best practice and commit resources to achieving these ends. This enables purchasing and other relevant policies to be drafted, budgetary outlay to be determined and allocated and staff education to be commenced. A dedicated committee is a useful vehicle to implement the suggestions contained in this Kit.

Lawyers For Forests recommends:

- ⊙ The partnership at your firm formally resolves to become “forest-friendly” by implementing the suggestions contained in this Kit and notifies all staff of this resolution, inviting interested staff to participate.
- ⊙ Your firm establishes a staff committee to oversee the implementation of the suggestions contained in this Kit.
- ⊙ The committee is vested with an ongoing advisory role regarding all purchasing decisions, to ensure future purchases conform to your firm’s stated objective of becoming “forest-friendly”.
- ⊙ Your firm institutes a monitoring and reporting regime to ensure the partnership and staff are kept informed of progress. LFF is happy to establish an ongoing relationship with your committee.

4. AUDIT

To get a picture of the current position at the firm you need to conduct a comprehensive audit. This will enable a “before-and-after” comparison to be made, using the Checklist, after the “greening” process has been underway for some months, facilitating assessment of the changes successfully implemented. Your firm can use the Audit Sheet at Schedule 2 or, for a more detailed assessment particularly of office waste streams, you can use the tools available on the Nature Conservation Council of New South Wales’ EcoOffice website (www.ecooffice.com.au). Another very useful website to visit prior to getting started belongs to an organisation established by the Victorian government to encourage recycling and waste minimisation, EcoRecycle Victoria (www.ecorecycle.vic.gov.au).

Lawyers For Forests recommends:

Your firm conducts an audit (perhaps using the attached Audit Sheet) that encompasses a comprehensive, detailed and firm-wide examination of the following:

“Forest-friendly”

- ⊙ The brands of paper being used in all office equipment, specifically printers, photocopiers and fax machines.
- ⊙ The brands of toilet paper, paper napkins and other paper products in use.
- ⊙ The models of printers, photocopiers and fax machines and whether they accept recycled paper and whether they have double-sided copying capabilities.

- ⊙ The energy provider for the firm.
- ⊙ Superannuation options available for staff.

Total Environmental Management System

- ⊙ The system of recycling – what is being recycled, what is not.
- ⊙ Whether the printers, photocopiers and fax machines accept remanufactured toner and printer cartridges and may be re-filled with ink.
- ⊙ Whether energy-saving devices are fitted in each office, such as motion detectors to switch off lights and computers with “sleep” modes engaged.

5. PAPER

5.1 A Paperless Office?

The paperless office has been predicted since the invention of the computer, but has yet to materialise. In fact, we are producing more paper documents than at any time in history because of the greater ease of their creation using computers, printers and photocopiers. With few exceptions we are still not comfortable enough with the technology to create, disseminate and store our documents solely in electronic form rather than in hard copy.



Some firms have attempted to wean themselves off their paper dependence, with mixed results³. There are also several computer-based document and transaction management systems on the market. For example, Secure Document Exchange (www.securedocx.com) uses a secure server to facilitate real-time document exchange and transaction-related discussion and electronic archiving of all documents and emails.

Electronic file storage and management systems have a range of advantages. These include ease of searching, access and exchange allowing staff to work off-site, significantly reduced storage and maintenance costs, paper costs, ink and toner costs and courier fees. However, until the majority of law firms adopt this approach, the legal industry will continue to be among the largest consumers of paper products.

During what LFF hopes will be a short transition period, we advocate taking the easy steps detailed in this section to minimise environmental impacts associated with excessive paper usage.

³ One of Melbourne's more innovative firms has embraced the technology and the legislation that facilitates electronic transactions by establishing a virtual "boardroom". Clients are allocated a password to enter the "boardroom" and a folder is set up containing all their legal documents. Clients, including those based overseas, simply fill in relevant details and the documents are emailed to estate agents and other organisations to complete conveyancing, contracts and other legal transactions in purely electronic, paperless form. (www.milhamlaw.com.au)

Lawyers for Forests recommends:

- Ⓞ **Your firm implements a program to progressively replace paper-based transactions with electronic transactions.**
- Ⓞ **Your firm invests in an electronic file/precedent storage and management system.**

5.2 Office Paper⁴

5.2.1 REFLEX PAPER – TO BE AVOIDED!

Paperlinx (also known as Australian Paper and, until April 2000, including Amcor) manufactures Reflex paper, one of Australia's highest selling office copy papers. An extensive advertising campaign over several years has made it one of the most recognisable copy paper brands on the market. To make its paper, Paperlinx sources around 475,000 tonnes of woodchips annually from native forests and an additional volume from plantations in Victoria's Central Highlands and Gippsland regions. Some of these forests form part of Victoria's water supply catchments (the Thompson, Armstrong, McMahons and Starvation catchments) and are habitat to threatened and endangered animal and plant species including the Leadbeater's Possum (Victoria's faunal emblem), Spot-tailed (Tiger) Quoll, the Sooty Owl, the Powerful Owl, the Spotted Tree Frog and Baw Baw Frog and the Tall Astelia Lily. Contractors supplying Paperlinx clearfell log in these areas. Some of the detrimental impacts of clearfell logging in water catchments are discussed in Schedule 1.

A legislated agreement with the Victorian government (the *Forests (Wood Pulp Agreement) Act 1996*) gives Paperlinx first option on a guaranteed supply of logs from these defined areas of volumes ranging from 350,000 to 500,000 cubic metres for 35 years until 2030. In addition to the generous rights of supply granted to Paperlinx (which effectively excludes other users from accessing those trees), the Act also bestows on Paperlinx significant bulk water entitlements and the right to discharge waste water from its Maryvale pulp mill into the Latrobe River.



Tree ferns and Mountain Ash, Central Highlands, Melbourne's water catchment. PHOTO: E.GREIG, 2002

⁴ The information in this section is correct as of August 2003. For an updated list of recommended and not recommended paper brands, see our website: www.lawyersforforests.asn.au. Much of the information in this section comes from the brochure *Is your office paper environmentally friendly?* researched and published by Environment Victoria Inc, Friends of the Earth and The Wilderness Society, October 2001.

⁵ For more information on Paperlinx/Amcor see the Paperlinx Green Shareholders Group website: www.paperlinxethical.shares.green.net.au

Given its size and sophistication, it is highly likely that Paperlinx would have the resources, technology and capacity to manufacture paper exclusively from plantations and post-consumer waste paper. Unfortunately, Paperlinx chooses to continue supporting the clearfell logging of many of our remaining native forests⁵. One of the reasons for this is that the public resource – the trees – are being sold so cheaply to them. For example, under the *Forests (Wood Pulp Agreement)*

Act 1996, licence fees payable to the State of Victoria are waived for the period 1996 to 1 July 2004 and after that date the fees will be calculated on a rate of just \$0.50 per cubic metre (that is, approximately one tonne) of pulp wood. Royalties are also minuscule. Schedule 1 examines some of the unfair competitive advantages flowing to the native forest logging industry over the plantation industry, including direct and indirect taxpayer-funded subsidies.

In addition to Reflex, other Paperlinx/Australian Paper manufactured products on the market include, or have included (products tend to come and go with great rapidity), the following: Copyright, Contact Lasercopy, Australian Pure White, Renew, Crown, Optix, Precision, Oz Copy, Post Office A4 paper, Glopaque, Impress, Centrefold, Acclaim, Saxton, Suits, Threads and Postspeed Envelopes.

LFF is wary about recommending that consumers, who wish to make a positive statement against Australian native forest destruction, buy overseas-manufactured paper products (particularly those labelled “Made in Indonesia” or otherwise from South East Asia) as this may simply be transferring the effects of logging from one fragile ecosystem to another. Whether they realise it or not, many paper producers, both in Australia and overseas, source significant quantities of their wood pulp from tropical rainforests and other high conservation value forests in South East Asia, the Pacific islands, South America and Africa. It is estimated that up to 75 per cent of Indonesian wood products including paper pulp are sourced from illegally logged trees, including from areas within National Parks⁶. Many of these black market Indonesian logs make their way onto the international market by being “laundered” through Malaysia and sold off to buyers who think they are purchasing Malaysian wood (which itself is often sourced from unsustainably managed forests, both in Malaysia and in countries such as the Solomon Islands).

Spicers Paper (owned by Paperlinx) is a major importer of Indonesian paper into Australia and even copy papers labelled “Made in Australia” may actually contain a significant proportion of Indonesian wood pulp. Paperlinx currently sources 70,000 tonnes of wood pulp from Indonesia to use in the manufacture of its paper products. Most large stationery suppliers, including Boise Cascade, Corporate Express and Officeworks, stock and promote paper made from native forest wood pulp. Consider how your firm can influence choices made by paper manufacturers, wholesalers, retailers and governments.

The European-made copy papers recommended below (Evolve, Canon 100/Nautilus, Cyclus) are acknowledged as meeting far superior environmental standards in the sourcing of their fibre than most other products on the market including, unfortunately, those from Australia.

5.2.2 BRILLIANT WHITE PAPER – IS IT REALLY NECESSARY?

It is worth asking yourself the basic question: “Does my firm really need to print documents on brilliant, bleached white paper?”. LFF disputes that brilliant white is ever necessary, especially for draft documents, though it should be noted that some of the recycled content and plantation-only copy papers on the market have whiteness levels as high as virgin pulp paper. However, if you do decide that brilliant white office paper is important at your firm, then consider the bleaching process used to whiten the paper. LFF strongly recommends paper products that have not used chlorine gas (elemental chlorine) in the bleaching process.

Pulp mills using elemental chlorine as a bleaching agent release an acutely toxic effluent that includes persistent organochlorines such as dioxins and furans, traces of which remain in the products (not just office paper but any product produced using chlorine bleaching such as tampons, cigarette papers, coffee cups, toilet paper, facial tissues, paper plates and disposable nappies)⁷. Dioxins are recognised as possibly the most toxic chemicals known. US Environmental Protection Authority research has determined that even generally trace amounts of dioxins (parts per trillion or lower) can cause an increase in the incidence of-

- ⊗ cancer;
- ⊗ behavioural effects and learning disorders;

⁶ “In Brief”, *Ethical Investor*, (7) Dec-Jan 2001-2002, page 35 and “4 Corners” report July 2002.

⁷ Environment Canada has estimated that 2 per cent of the organochlorines formed in the bleaching process remain in the pulp and in the final product. www.ec.gc.ca

- ⊙ decreased immune responses;
- ⊙ decreased male sex hormones and sperm count;
- ⊙ diabetes; and
- ⊙ endometriosis.

A better alternative is elemental chlorine free (ECF) bleaching which uses oxygen delignification followed by chlorine dioxide bleaching. The waste by-product produced is significantly less toxic and contains less organochlorines than effluent produced using a chlorine gas bleaching process. The best option, however, is totally chlorine free (TCF). TCF whitening uses hydrogen peroxide, ozone and oxygen gas, rather than chlorine, to achieve high whiteness and produces an effluent virtually free from organochlorines.

Lawyers for Forests recommends:

- ⊙ **Your firm avoids using any paper products that are made from wood pulp sourced from the logging of native forests, especially:**
 - > **the Reflex brand and other Paperlinx /Australian Paper products until that company moves its operations out of native forests; and**
 - > **any paper labelled “Made in Indonesia” or otherwise from South East Asia.**
- ⊙ **Your firm avoids using any paper products bleached using a chlorine gas process.**

5.3 Office Paper Alternatives

5.3.1 ENVIRONMENTALLY PREFERRED PAPER ALLIANCE (EPPA) SPECIFICATIONS

Many companies are finally showing some interest in moving away from environmentally destructive papers like Reflex and those made from tropical rainforests. In support of this, several large environmental organisations, most notably the Australian Conservation Foundation, The Wilderness Society, Environment Victoria and the WWF, in collaboration with a number of large companies that are significant paper consumers, formed the Environmentally Preferable Paper Alliance (EPPA). The EPPA then formulated the Environmentally Preferred Paper Specifications (**the EPPA Specifications**) containing detailed “green” purchasing criteria to assist companies buying environmentally responsible office copy paper.

The EPPA Specifications encourage the buying of recycled content papers but also recognise that paper cannot be recycled forever. Eventually, the wood fibres are broken down by the paper-making process to such an extent that they no longer bind together with sufficient strength to make paper. Accordingly, virgin fibre must continually be added to the mix. Further, the EPPA is wary of some manufacturers that produce old-growth or tropical forest sourced paper which is used once by consumers and then collected to be made into recycled paper which is then paraded as a superior, post-consumer, “green” product. In addition to mandating a 50 per cent, predominantly post-consumer, recycled content, the EPPA Specifications stipulate several qualities that the virgin fibre must possess for it to be considered environmentally friendly. These qualities include that it is sourced from forests that have been certified to standards that meet or exceed those of the Forest Stewardship Council (see under 5.3.3 for more information on FSC accreditation), not be from high conservation value (including old-growth) forests and not be from genetically modified trees. The paper must also not use chlorine bleaching and all emissions to water and air or hazardous substances used in the production process must comply with a listed standard. The intention is that companies will sign on to the EPPA Specifications to signal their commitment to purchasing only paper that meets the EPPA Specifications within two years. The EPPA Specifications and a Statement of Intent are available from eppa@telstra.com. Law firms are encouraged to join the Alliance, sign on to the Statement of Intent and ask their paper

suppliers to provide only office paper that complies with the EPPA Specifications.

What follows is a brief examination of the advantages and disadvantages of recycled paper (post-consumer and pre-consumer) versus plantation-sourced paper as well as the listing of several papers we recommend. Please note that paper brands come and go and the environmental credentials of some manufacturers tend to wax and wane. Accordingly, you should keep in contact with the EPPA for the latest news on recommended and not recommended paper brands. Alternatively, the electronic version of this Kit, available at www.lawyersforforests.asn.au, will be kept up to date with the latest brands and information.

5.3.2 RECYCLED PAPER

Compared to producing paper from virgin wood pulp, one tonne of recycled paper saves approximately⁸ –

- 17 trees;
- 2.5 barrels of oil;
- 4100 kilowatt/hours of electricity (60 – 75 per cent less energy than manufacturing paper from virgin pulp);
- 4 cubic metres of landfill;
- 27 kilograms of air pollutants;
- 75 per cent of chlorinated bleach; and
- 31,780 litres of water (60 – 90 per cent savings).

Buying recycled products, such as copy paper, also supports new markets, creating employment opportunities while decreasing environmental impacts.

(A) PRE-CONSUMER VERSUS POST-CONSUMER WASTE

There is an appreciable difference between some “recycled” papers. Only those recycled paper products containing a significant proportion of **post**-consumer waste are considered by most commentators as legitimately labelled “recycled”. Post-consumer waste is paper that has been used at least once by consumers, is then collected, sorted, de-inked and re-manufactured.

Other paper brands labelled “recycled”, such as many of the Paperlinx / Australian Paper products, use a high percentage of **pre**-consumer paper waste that is sourced from other industries, such as printers’ offcuts. These offcuts tend to be brilliant white and have never been printed on or otherwise used. Paper products made using pre-consumer waste contain a large amount of essentially the same virgin, native forest wood pulp as in the non-recycled product. LFF does not recommend these products. Neither does LFF recommend the widely advertised Reflex 35 product. It is unclear whether the 35 per cent recycled content is pre-consumer or post-consumer but more importantly, the remaining 65 per cent is virgin pulp, at least some of which may be sourced from native forests, including old-growth and other high conservation value forests.

In addition to recycled content office papers, there are also some brands made from alternative fibres, the most prominent being sugarcane waste, called bagasse, and cotton linters, a by-product of the cotton industry. LFF is very concerned about present environmental standards in the cotton and sugar industries, with both being characterised as high level consumers of water, pesticides and herbicides. LFF will consider paper products made from well-managed, alternative crops (particularly hemp) and crop waste in the future. On environmental grounds, LFF is currently unable to recommend any alternative fibre copy papers.

(B) PERFORMANCE

To examine the veracity of commonly-held perceptions about the performance of recycled paper in office equipment, the Northern Sydney Waste Board in conjunction with the Willoughby Council offices undertook a “Mystery Paper Trial”⁹. Council staff were told only that they

⁸ Visy Recycling flyer - information taken from a report prepared by Facilities-Design+Construction Services, Mobil - Northern Virginia, USA. See also Ecorecycle and Buy Recycled Business Alliance (BRBA), *If You're Not Buying Recycled, You're Not Recycling - Buying Recycled for Business: The Tool Box*, available from: www.ecorecycle.vic.gov.au/asset/1/upload/Buy_Recycled_Business_Alliance_Toolbox.pdf

⁹ NSW Waste Boards, “Putting Recycled Paper to the Test”, *Buy Recycled Guide*, available at www.buyrecycled.wasteboards.nsw.gov.au

were testing three different office papers to determine the most appropriate for the Council. To eliminate bias, no information about the recycled content or otherwise of the paper (virgin-pulp, 50 per cent post-consumer recycled and 70 per cent post-consumer recycled) was given to staff. After several weeks of trials, staff were requested to enter a score for each paper's performance. In the performance rating, the recycled paper actually scored higher for most performance indicators than the virgin-pulp paper.

These findings have been regularly confirmed in comparison studies. For example, in 1998 the US Conference of Mayors and the US Government Printing Office conducted a study where in excess of 2 million sheets of copy paper were tested for paper feeding (that is, number of jams), reliability, image quality, toner fixability, smoothness and curl. Results proved that recycled papers with 30 per cent post-consumer content performed just as well as virgin papers and recycled papers with lower post-consumer content¹⁰.



As quality and performance are now less of an issue, and as demand improves the price competitiveness of recycled products, LFF strongly urges your firm to embrace copy paper that meets the EPPA Specifications in all office applications. To assist in this move we have included the results of an extensive and on-going survey conducted by several leading environmental groups. The survey found that, from an environmental perspective, the recycled office papers listed in the recommendation box on page 14, while not 100 per cent environmentally-friendly, represent a marked improvement over the Reflex suite of papers¹¹. LFF invites your firm to conduct its own trials, comparing quality, reliability and cost to see which of the following performs best and suits your needs.

Lawyers for Forests recommends:

Your firm purchases only office paper that complies with the EPPA Specifications. As at August 2003, the following papers available in Australia most closely complied with the EPPA Specifications:

White photocopy / printer papers

(a) Evolve (Office and Business brands)
This European paper is 100 per cent recycled with a high percentage of post-consumer waste. It is non-chlorine re-bleached, has a very high whiteness (especially the Business brand) and boasts greater than 150 years archival quality.

(b) Canon 100 (aka Nautilus)
This European paper is 100 per cent recycled (including approximately 50 per cent post-consumer waste). It is whitened using a non-chlorine, oxygen-based process. It boasts 100 years archival quality and is recommended by the manufacturer for single or double-sided copying and printing.

¹⁰ Recycled Paper Coalition and Buy Recycled Business Alliance, *Buy Recycled – Recycled Paper*, March 2000.

¹¹ Environment Victoria Inc, et al brochure (fn 4). See also Resource NSW, *Know Your Paper: A Guide to Purchasing Recycled Content Office Paper*, 2002.

Printing papers

(a) *Enviro Board Paper (aka Botany Brown)*

This is not a photocopy paper. It is a thicker stock and is used by the printing industry (for example, to make annual report covers). It is 100 per cent recycled with a high percentage of post-consumer waste. It is made in Australia by Visy.

(b) *Cyclus Offset*

Made in Denmark, this is 100 per cent recycled with 75 per cent post-consumer waste. It is archival quality and, while it can be used in photocopiers, it is highly recommended for printing annual reports, letterhead and newsletters. You can request your commercial printer / designer uses this paper. This Kit has been printed on Cyclus Offset.

5.3.3 PROBLEMATIC ALTERNATIVES INCLUDING PLANTATION-SOURCED PAPER

Sourcing wood from plantations is an improvement over native forest clearfell logging. However, many commentators have expressed concerns about the management regimes employed in much of the plantation estate, both here and overseas. Concerns include the fact that large areas of native, old-growth forest are being cleared to make way for plantations, particularly in Tasmania¹². Also, many plantations, located on both public and private land, are subject to dubious environmental controls. For example, the use of herbicides, pesticides and other harmful chemicals tends to be rife with these chemicals washing and blowing into waterways and onto neighbouring properties. Logging operations on many plantations are at least as destructive as what is occurring in our native forests. Evidence collected by various environmental groups has shown clearfell logging being carried out on steep slopes, logging right up to the edge of waterways, and debris being bulldozed into stream channels. This management regime allows topsoil to be washed away by rain, reducing water quality by increasing turbidity. Also few, if any, monoculture plantations support significant biodiversity or provide suitable habitat for native animals. In this regard, plantations have been likened to deserts or wastelands.

World's best practice forest management is conducted by those companies that have been certified under the scheme administered by the Forest Stewardship Council (FSC) (www.fscoax.org). The FSC is a non-government organisation established to critically monitor forestry operations and wood products producers around the world. It oversees an independent, third-party, auditing process for those logging companies, forest and plantation managers and wood product manufacturers seeking to be market leaders in reducing the environmental impacts of their operations. If, after an extensive examination of the company's operations by the FSC auditors, the certification criteria is achieved, the FSC awards the company its tick of approval. FSC-certification is generally acknowledged as a useful indicator for those consumers wishing to buy paper or other wood-based products that have been produced or manufactured with the least detrimental impact on the environment.

The following copy papers include a substantial proportion of plantation sourced wood fibre and are significantly better, from an environmental point of view than the worst products on the market, such as Reflex and papers sourced from tropical forests:

(A) "BEST OF" TRIOTEC

This paper, like Nautilus/Canon 100, is manufactured in Austria. It uses 50 per cent recycled pulp (comprising 86 per cent post-consumer and 14 per cent pre-consumer waste) and 50 per cent virgin fibre (35 per cent eucalypt plantation fibre from Spain and 15 per cent European, partially natural, native forest fibre, some of which may be from high conservation value forests). The paper is manufactured as three layers with the centre layer comprising the recycled content, creating a smoother surface. It is wafer thin and has super-high whiteness via a TCF, oxygen-based bleaching

¹² "Between 1996 and 2000, the Tasmanian forestry industry replaced 53,406 ha of native forest with plantations...Since 1999 over 60% of clearfelled forests in Tasmania have been converted to plantation. This includes hundreds of hectares in the Styx Valley", Planet Ark, *The Sad Story of Forestry in Tasmania*, www.planetark.com.au

and rebleaching process and boasts 100 year archival properties. This paper is being sold under several brand names including “Best of” Triotech, ecopy, Officeworks Recycled and EXP50/50¹³.

(B) DATACOPY (AKA MODO)

The manufacturer of this paper claims it to be 100 per cent plantation, however, forest campaigners claim that at least a proportion of the wood pulp comes from overseas areas that may be regarded as native forest. It is a very high quality paper with superior whiteness that is particularly recommended by the manufacturer for high speed photocopiers. The manufacturing process uses elemental chlorine free bleaching and a state-of-the-art, closed loop, water recycling system.

5.4 Suppliers

The following suppliers stock some of the above paper products:

- School Communities Recycling All Paper Ltd (SCRAP) – ph. (02) 9825 1062 (Canon 100/Nautilus, Evolve, Cyclus and Softex toilet paper and handtowels (see below)). Can deliver interstate, very competitive rates including 15 per cent discount to members. www.scrapltd.com.au
- CPI Group – ph. (03) 9239 3600 (Evolve and Datacopy). www.cpigroup.com.au
- Danka Australia – ph. 1300 787 871, (03) 9924 8590 (Nautilus). www.danka.com.au
- Ecocern – ph. (02) 9337 2737 (Evolve and Ecocern Copy Brown by Visy). Can deliver interstate. www.ecocern.com
- Edwards Dunlop – (03) 9263 9700, 1800 113 007 (“Best of” Triotech/ecopy).
- Friends of the Earth – ph. (03) 9419 8700 (Evolve). www.foe.org.au
- Grierson’s Complete Office Supplies – ph. (03) 9478 1344, 1300 882 244 (Evolve). www.cos.net.au
- KW Doggett – ph. (03) 8470 2222 (Evolve). www.kwdoggett.com.au
- National 1 Limited – ph. (03) 8671 2000 (Evolve). www.national1.com.au
- Premier Paper Co. – ph. (03) 9416 8188 (Evolve and Canon 100). premierpaper@iprimus.com.au
- Tredex Pty Ltd – 1300 727 377 (Evolve). www.tredex.com.au
- Visy Paper – ph. (03) 9247 4500. www.visy.com.au
- Canon – ph. 13 1393 (Canon 100/Nautilus) – large orders only. www.canon.com.au

5.5 Reducing Consumption

5.5.1 IS A PRINTED COPY REALLY NECESSARY?

In the 2000/01 financial year approximately 1.26 million tonnes of printing and writing paper were used by Australians. One tonne of virgin pulp office paper requires around 24 trees to make. This equates to over 30 million trees being consumed each year¹⁴.

Staff education must form a key part of your firm’s implementation plan. Simple reminders are vital:

- Don’t print unnecessarily and, if you must print, do so double-sided.
- Consider email instead of letters and faxes.
- Don’t print fax confirmations unless necessary.
- Store documents in electronic form rather than hard copy.

5.5.2 PRINTING DOUBLE-SIDED USING A DUPLEXER

In most cases there is no reason why a document cannot be printed double-sided. It is easy to print and photocopy documents single-sided without thinking. Why not change this culture so that the norm is to print double-sided? Duplexers (devices that allow double-sided copying and printing) can immediately reduce the amount of paper consumed in the office environment by

¹³ Resource NSW, *Know Your Paper: A Guide to Purchasing Recycled Content Office Paper, 2002* at page 6; and R. Hughes, *pers. comm.* April 2003.

¹⁴ Resource NSW, *Know Your Paper* (fn 13) at page 2, quoting the NAFI website and www.dolphinblue.com/whybuy.html

almost half. While the purchase or lease of duplexers for all office printers and copiers may be a significant initial capital expense, savings from decreased paper consumption will eclipse these tax-deductible outlays in a short period of time (see below at 5.5.3).

Following installation of duplexers, double-sided printing should be the default setting for printing software. Wherever possible, the “Print Properties” function should be set to print drafts at 4 or even 8 pages to a sheet.



Also, non-confidential one-sided sheets can be reused for printing drafts. A dedicated tray in, or even the lid of the ream box next to, each printer and copier could be established to facilitate printing of drafts on one-sided sheets. Alternatively, non-confidential, one-sided sheets can be cut and stapled to create notepads. Shredded confidential documents should, of course, be recycled.

Further, each office should contain a whiteboard on which ideas are worked out, rather than using paper.

5.5.3 HOW MUCH MONEY CAN THESE CHANGES SAVE MY FIRM?

LFF surveyed several large, national corporate law firms and discovered that each firm, on average, consumes over 2,000 reams of white office copy paper per month in their Melbourne offices alone. This equates to more than 12 million sheets of paper per year and, at an average cost of \$5.50 per ream, each firm spends around \$132,000 annually on copy paper. This does not take into account the considerable extra costs associated with setting aside dedicated storage areas (shelving, filing cabinets, binding materials, etc.) to store the results of printing. The Nature Conservation Council of NSW's EcoOffice website (www.ecooffice.com.au) examines these storage issues in more detail and enables you to calculate relative costs for your office and the savings you could achieve by decreasing your reliance on paper.

By introducing duplexers to all printers and photocopiers and mandating all or most printing and copying to be done double-sided as well as printing and copying only where absolutely necessary, paper savings of around 30 to 45 per cent can be achieved. If your firm is currently using 2,000 reams per month, **the potential savings accruing from reduced paper consumption could amount to approximately \$40,000 to \$60,000 each year!**

Lawyers for Forests recommends:

- ⊙ You encourage all staff to limit printing and copying to only essential documents.
- ⊙ Your firm fits all printers and photocopiers with duplexers to enable double-sided copying and printing.
- ⊙ Your firm mandates that double-sided printing and copying be the default option for all staff.
- ⊙ Your firm encourages all staff to print or photocopy drafts two pages on each side of the sheet

and on the back of unimportant, one-sided printed paper. A dedicated tray can be set up near each printer and photocopier to facilitate this.

- ⊙ Your firm ensures all offices are fitted with whiteboards and that scrap paper notepads are provided to all staff.
- ⊙ When archiving files, save all documents including emails electronically (for example, on CD) rather than printing hard-copies.

5.6 Other Paper Products

All firms use a significant amount of other paper products including paper towels, serviettes, tissues, toilet paper and paper cups. Several manufacturers use woodchips sourced from Australian and overseas native forests that are not responsibly managed to make these items. However, recycled paper products made from post-consumer waste are viable alternatives to products made from native forest fibre.

Many respected environmental organisations recommend we avoid products manufactured by the New Zealand company Carter Holt Harvey (CHH). CHH owns brands such as Sorbent, Handee, Hygenex, Purex, Deeko, Hostess and Prestige. This company has been sourcing woodchips from native forest areas in north east Victoria and the Central Highlands¹⁵. Kimberly Clark (manufacturer of Kleenex, Viva, Cottonelle, Huggies, Scott and Kotex branded products) has, in the past, also been heavily involved in the logging of Victorian native forests, including in the Otways. However, both CHH and Kimberly Clark now claim to be decreasing their reliance on native forest wood pulp in favour of plantations (but see above under 5.3.3 for some of the issues associated with plantations). Of course, the best option is to choose from the extensive range of recycled products.

It is not difficult to purchase products that assist our remaining native forests. Many 100 per cent recycled products are available that are of superior quality and competitively priced. Recycled paper products include those manufactured by ABC Tissue (formerly Cosco Holdings) who offer oxygen rebleached, 100 per cent, post-consumer, recycled content toilet paper, serviettes and hand towels under the brand names Softex and Forest Free. Merino Pty Ltd (formerly Paper Converting Company) market several recycled content brands including Safe (endorsed by Planet Ark) and Earthwise.

Of course, the best approach is, wherever possible, to avoid paper-based products entirely. Using cotton tea-towels in the kitchen area and hand-towels in the bathrooms will save you money and reduce waste. LFF recommends that you also choose environmentally-friendly detergents when washing the towels, to protect our waterways from chemicals and phosphates. One excellent Australian company is Tri Nature, which produces a broad range of environmentally-friendly cleaning products. These products are better for our waterways because they are free from phosphates, nitrates, harsh chemicals and caustic agents (for a local distributor, see www.trinature.com).

Providing washable mugs for drinking rather than using paper or polystyrene cups is also preferable. See below under section 9.1 for the savings achieved by two large organisations – the City of Melbourne and BP Australia – who replaced their polystyrene cups with reusable mugs.

¹⁵ North East Victoria Comprehensive Regional Assessment Report (1998), prepared by the Commonwealth and Victorian Regional Forest Agreement (RFA) Steering Committee in Canberra.

Lawyers for Forests recommends:

- ⊙ Your firm minimises its use of paper products by purchasing and using tea-towels, cotton hand towels and reusable mugs.
- ⊙ Your firm avoids using any paper products that are sourced from the logging of forests that have not been certified to Forest Stewardship Council standard or equivalent.

- ⊙ Your firm uses 100 per cent, post-consumer waste, recycled paper products, such as products sold under the brands Softex, Safe or Earthwise toilet paper, serviettes and handtowels or, if available, paper products that comply with the EPPA Specifications.
- ⊙ Your firm avoids using paper products bleached using a chlorine gas process.
- ⊙ Your firm uses only environmentally-friendly cleaning products.

6. OFFICE FIT-OUTS AND FURNITURE

6.1 Veneers¹⁶

Office fit-outs often incorporate wood-grain veneers. The problem is over 90 per cent of Australian veneer comes from Tasmania's native forests and is a significant contributor to deforestation in that state. In addition to its massive Tasmanian woodchipping operations, Gunns Ltd also dominates the veneer market, producing 9 million square metres of veneer each year. In 1999, Gunns bought out Carter Holt Harvey's NZ veneer slicing business making it Australasia's largest producer of sliced veneers and world's largest producer of eucalypt veneers .

"Enviroven 1" is currently one of the more environmentally-sound veneer products on the market. This is manufactured by an Italian company called Alpi using only Italian-grown, reconstituted poplar trees which are dyed using a proprietary process, then sliced to produce veneers that look remarkably like native wood grains, including Jarrah and Victorian Ash¹⁷.

An alternative to the above are the locally-produced veneers produced from responsibly managed plantation species (such as hoop, radiata and slash pine) using the "crown cut" method. "Crown cut" is a more efficient production technique that uses thinner, regrowth trees and results in less waste than traditional veneer production which uses inefficient slicing methods that rely on large-diameter, old-growth trees. Unfortunately, despite a provision in the Regional Forest Agreements to 'encourage the use of "Crown Cut" regrowth veneer for construction and renovation projects that involve the Commonwealth: including by promotion within Commonwealth purchasing agencies, and within design specifications', very few mills produce veneer using this method.

6.2 Furniture

Again, a large proportion of desks, boardroom tables and other furniture are sourced from wood taken from poorly managed forests. It is very difficult, for example, to find non-pine, wooden picture frames in Australia that have not originated from Indonesian native forests, including rainforests. So too, wooden blinds for windows are almost invariably made from Indonesian or Australian native forest hardwoods. However, alternatives do exist, including furniture made from recycled timbers, plastics and other materials. One such product is Recopol, manufactured by Wharington International, which is office furniture made from recycled resins (www.wharington.com.au).

The Internet contains a wealth of resources to assist in investigating suitable products, including:

- ⊙ The Australian Conservation Foundation's extensive section on its website (www.acfonline.org.au) designed to assist organisations in making their offices more environmentally friendly. The site examines office fit-outs, energy and water conservation and waste reduction.
- ⊙ The EcoRecycle website (www.ecorecycle.vic.gov.au).
- ⊙ The Resource NSW website, which contains links to useful publications including the "Buy Recycled Guide", the "Office Products Guide" and "Waste Reduction Guides for Office Buildings" (www.resource.nsw.gov.au).

¹⁶ The majority of information contained in this section is taken from the publication, *Australian Veneer Production* by A Walker-Morison, The Wilderness Society, 2002, and the One Stop Timber Shop website: www.timbershop.wilderness.org.au/product/veneers.html

¹⁷ More information on this product as well as prices can be obtained by contacting the Australian supplier: New Age Veneers, Unit 9/45-47 Salisbury Rd, Hornsby, NSW, 2077.

- ◉ The Wilderness Society’s One Stop Timber Shop website provides an extensive list of recycled and plantation wood types (as well as those wood types to be avoided) for all your construction needs, as well as suppliers, designers and builders (www.timbershop.wilderness.org.au).

A relative newcomer to the wood products market is “ecoselect” wood, an initiative of the Timber Promotion Council (TPC). The TPC is a body set up under regulation by the Victorian government and funded by taxpayers. It mainly comprises members of the logging industry and its mandate is to promote the sale of native hardwoods. “Ecoselect” has been extensively advertised in the print media and on television with appealing images of cellists playing their instruments in beautiful forests and claims that the Australian hardwoods featured are sustainably harvested. LFF does not endorse “ecoselect” branded products because the advertisements and the associated website contain no evidence to back up the claims made. Without exception, all the well-respected, environmental organisations surveyed by the LFF, prior to the publication of this Kit, believe that “ecoselect” wood comes from the same native forests that already supply the majority of the local hardwoods and woodchips on the market. Even the Victorian government has finally admitted the forests are not being managed sustainably¹⁸. Arguably, the advertising associated with “ecoselect” is misleading or deceptive because, among other things, it creates the impression that these wood products have been certified by some independent, third party accreditation scheme when this is not the case¹⁹. For more information on the practices of Australia’s native logging industry, see Schedule 1.

Lawyers for Forests recommends:

- ◉ **Veneers, furniture and other fit-out materials used in your office are sourced from plantations preferably certified to Forest Stewardship Council standard or better (see section 5.3.3 above).**
- ◉ **Your firm avoids any products bearing the “ecoselect” brand.**
- ◉ **The committee formed to implement this Kit is given an ongoing role in researching and advising on firm purchasing and fit-outs.**



A “skidder” used to drag logs to the log landing, the Otways. PHOTO: TONY QUOLL, 1999

¹⁸ The first paragraph of the Bracks’ government’s policy statement on forests, *Our Forests, Our Future*, reads: “We know that the current level of logging in Victorian forests is unsustainable and that we are at risk of losing one of our most valuable resources.” February 2002, page 1.

¹⁹ It is also arguable that the claims made by the promoters of this product breach the Interim Australian Standard for Environmental Labels and Declarations – Self-Declared Environmental Claims (AS ISO 14021 (int), 1998). For a copy see www.isostandards.com.au

7. CHOOSING YOUR ELECTRICITY RETAILER

7.1 Full Retail Contestability

In January 2002, the Victorian and NSW electricity markets were rendered fully contestable. This means that we now have the right to choose our preferred electricity retailer. Our choice can be informed by a range of factors, including the source of the electricity (for example, coal, gas or renewable sources). Accredited Green Power energy is generated from renewable sources such as wind, solar, biomass (including methane recovered from old landfill sites) and hydro-electricity.

7.2 Burning Native Forests for Electricity

In December 2000 the Federal government, with the support of the Opposition, passed the *Renewable Energy (Electricity) Act 2000*. This Act was originally intended to assist genuine renewable industries and technologies, such as solar and wind-powered energy generation. The Act, through its Mandatory Renewable Energy Target (MRET) scheme, requires that energy suppliers source at least 2 per cent of their electricity from renewables. However, currently, the Federal government's actual MRET target is 9500 gigawatt hours of renewable energy generation by 2010, which actually corresponds to just 0.5 per cent of total generation by 2010. This figure has been criticised by many commentators as being far too low to make a difference to our overall levels of greenhouse gas emissions and insufficient to stimulate the renewable energy industry²⁰.

Unfortunately, despite the recommendations of the Senate Committee reviewing the legislation, "renewable" energy was defined to include the burning of native forest biomass (misleadingly described as "waste"). Rather than simply using the "waste" products from the logging industry, the burning of native forest biomass would contribute to a marked increase in demand for native forest trees and, hence, increased clearfell logging. Arguably, this was a lifeline thrown to the ailing native forest logging industry to enable it to sell more woodchips – even a medium-sized, wood-fired, electricity generator would consume hundreds of thousands of tonnes of woodchips each year.

Following the passing of this legislation, over half a dozen applications were lodged in NSW and Victoria seeking development approval to build electricity generation plants that operate by burning wood products. Use of such "Dark Ages" methods of generating energy not only creates a new, potentially unquenchable, market for native forest trees but would also be a significant contributor to greenhouse gas emissions and air pollution in general.



Warm temperate rainforest bulldozed and burnt at Ferntree, East Gippsland. PHOTO: TONY QUOLL, 2001

²⁰ R. Myer, "Wind projects face a brewing storm", *The Age*, 28 June 2003 at page Business 2.

In light of these developments, “Green Electricity Watch” (a coalition of 8 leading conservation organisations including Environment Victoria, the Nature Conservation Council of NSW, Greenpeace, The Wilderness Society and the Australian Conservation Foundation) surveyed all of Australia’s electricity suppliers on a number of important issues –

- ⦿ whether they will commit to never sourcing electricity from companies that generate energy by burning native forest material;
- ⦿ the use of genuinely renewable energy and whether environmental sustainability guidelines are applied to the sources of their energy;
- ⦿ whether they will encourage significant reductions in energy usage;
- ⦿ how they will assure the public of their environmental standards; and
- ⦿ how they will market their green electricity products to ensure the growth of renewable energy production.

The results revealed one company, Origin Energy, to be a clear market leader in that its premier green product is sourced from 100 per cent new wind energy and is linked to the active promotion of demand management programs. The full report is available from any of the organisations involved²¹.

By 2010, the Victorian government expects that 10 per cent of its Departments’ and agencies’ energy needs will be supplied from “green energy” sources. This is an important first step in reducing the state’s dependence on burning brown coal. Your firm could decide to meet all of its energy requirements through the purchase of “green energy”. Even buying one quarter of your electricity in the form of “green energy” would be a commendable start and significantly reduce the level of greenhouse gas emissions attributable to your firm’s activities.

Lawyers for Forests recommends:

- ⦿ **Your firm contracts with an energy supplier that obtains its electricity from fully renewable sources, actively promotes energy conservation initiatives and guarantees never to source energy from the burning of native forest material.**
- ⦿ **Your firm purchases at least 25 per cent of your energy needs in the form of accredited “green energy”.**

8. SUPERANNUATION

8.1 Introduction

Socially responsible investment (SRI) is an increasingly popular alternative to the passive investment of superannuation in any company, irrespective of its environmental (and social) performance.

In Australia, SRI funds under management grew from \$216 million in 1996 to \$13.9 billion in 2002²² and the number of dedicated SRI funds offered in the Australian market increased from three to more than 15. Significantly, by July 2002, approximately 20 superannuation funds offered an SRI option, generally as a member investment choice, representing a significant portion of the total superannuation industry and markedly increasing the potential for investment benefits for preferred sustainable companies. These funds include Unisuper, VicSuper, CSS/PSS and Australian Retirement Funds, which together manage superannuation funds worth almost \$28 billion on behalf of 1.8 million workers²³.

²¹ The full report and summary are also available on the Internet at www.nccnsw.org.au/context/greenelectricity.html

²² Deni Greene Consulting Services, *Socially Responsible Investment in Australia*, September 2002, quoted in WWF Australia, *Corporate Reputation, Credible Reporting*, 2003, at page 2.

²³ F. Wade “Rash of Super Funds going Ethical”, *Ethical Investor*, (7) Dec-Jan 2001-2002, page 40.

8.1.1 DIFFERENCES IN SRI FUNDS

SRI funds use various methods to integrate environmental considerations into their investment decisions. “Deep green” funds will only invest in environmentally beneficial companies, such as companies involved in developing environmental technologies or renewable energies. They impose positive and negative screens which, respectively, select those companies that operate responsibly and sustainably and screen out those that do not, or that engage in activities or produce goods that are not considered environmentally sound (for example, companies involved in logging old-growth forests or mining uranium). An example of one of the very few such funds operating in Australia is Australian Ethical Investments (www.austethical.com.au).

“Light green” funds will also take corporate environmental performance into account using the triple bottom line approach - where environmental performance and management is considered alongside social and economic considerations. These funds tend simply to invest in the most “sustainable” companies in each industry sector within the top 200 publicly listed companies.

Further, some fund managers actively engage with the companies in which they invest, encouraging those companies to operate responsibly and sustainably. This can help to improve the overall environmental performance of those companies.

8.1.2 RETURNS

On balance, the evidence suggests that there is certainly no penalty for investing in SRI and many studies have found that SRI funds give better or equivalent returns than non-SRI funds. For example, a study by AMP Henderson Global Investors showed that the average Australian SRI managed fund consistently outperformed the ASX 200 (the average percentage returns for the 3 years to December 2001 were 12.3 per cent for the SRI funds versus 10.1 per cent for the ASX 200), while a study reported on by UBS Warburg in 2001 showed that, of 183 SRI funds across 41 different investment categories, on average, the SRI funds outperformed their non-SRI competitors over the previous 3, 5 and 10 year periods²⁴. These results tend to confirm the link between best practice management of social and environmental impacts and good financial returns.

8.1.3 FURTHER INFORMATION AND ADVICE ON ETHICAL INVESTING

The Australian Conservation Foundation has researched SRI and prepared several important reports:

- ⊙ An introduction to SRI - www.acfonline.org.au/docs/general/00355.pdf
- ⊙ Where is your superannuation money going? An environmental perspective – www.acfonline.org.au/docs/publications/rpt0020.pdf

For a complete list of retail SRI funds available, as well as links to SRI financial planners see Ethical Investor Magazine website: www.ethicalinvestor.com.au. Another source of useful information is the Ethical Investment Association: eia.org.au

Lawyers for Forests recommends:

- ⊙ **Your firm ensures that its preferred superannuation provider offers a Socially Responsible Investment option (preferably “deep green”) to all staff.**
- ⊙ **The superannuation provider explains to your staff about how SRI works and in what companies the provider invests its members’ funds.**

²⁴ Both studies cited in Ethical Investment Association, *Your Guide to Socially Responsible Investment*, 2002. For copies, contact Environment Australia on 1800 803 772.



9. RECYCLING

9.1 Introduction

Victoria generates over 4 million tonnes of solid waste each year. Another 3 million tonnes is successfully recycled. There is really no excuse for not recycling in the office environment as several companies offer a complete recycling service, including free provision of receptacles to place material in. These receptacles comprise small desktop boxes, larger boxes for use near photocopiers and printers, and large wheelie-bins. They then collect and empty the bins and sort and recycle the contents.

Some recycling companies make recycling and waste minimisation extremely easy by allowing all recyclables (glass, aluminium, steel, plastics, paper) to be placed into the same collection bins and then sorting the material into waste streams at their plants. Visy is one such company and on each of Visy's recycling receptacles is a list of the items that can be recycled. That the majority of "waste" material can be recycled is confirmed by the fact that many Visy customers (for example, BP Australia) have been able to remove rubbish bins from each staff member's office, replacing them with Visy recycling receptacles. One or two rubbish bins are then located in central areas to allow disposal of non-recyclable items.



Recycling means significantly less reusable material ends up in landfill. As indicated in the statistics included in this Guide (see 5.3.1 and 9.2), large amounts of energy and water are saved in the remanufacture of collected goods into other products, while the emission of pollutants is minimised.

Even obsolete and non-functioning mobile phones can be recycled. Planet Ark is running the "Phones 4 Planet Ark" mobile phone recycling program (www.phonerecycling.com.au; ph. 1300 730070). Rather than throwing these phones away, they can be dropped off at participating stores, including most Telstra, Optus and Vodafone outlets.

One item that cannot easily be recycled is polystyrene. The best approach with polystyrene is not to purchase it. In recent years both the City of Melbourne and BP Australia decided, based on environmental and economic principles, to replace all polystyrene cups with washable mugs. The City of Melbourne now saves 30,680 polystyrene cups and around \$1,000 annually. The mug-replacement scheme at BP has achieved the company cost savings of \$1,200 per year.

9.2 Recycling Statistics

In addition to the figures reported above relating to 1 tonne of recycled paper (see 5.3.1):

9.2.1 ALUMINIUM

Recycling 1 kilogram of aluminium can save:

- 14 kilowatt hours of electricity (95 per cent savings over the electricity needed to manufacture one kilogram of aluminium from ore);
- 3.6 kilograms of bauxite (aluminium ore);
- 2 kilograms of chemicals;
- 95 per cent of related air pollution; and
- 97 per cent of related water pollution.

The energy needed to make one tonne of virgin aluminium could recycle 20 tonnes of aluminium from waste.

9.2.2 GLASS

Recycling glass products can save:

- 114 litres of oil;
- 80 per cent of related mining wastes;
- 20 per cent of related air pollution; and
- 50 per cent of related water pollution.

Recycling one glass bottle saves enough energy to light a 100 watt bulb for four hours.

9.3 Buying Recycled

An excellent way to minimise the firm's impact on the environment is to buy recycled products wherever possible. This reduces the need for new products to be manufactured using non-renewable fossil fuels and ores. It also reduces the amount of material going to land-fill. All the better stationers offer products that have at least some percentage recycled material. Also, in recognition of the consumer shift towards recycled goods, EcoRecycle Victoria publishes the "Waste Wise Purchasing Guide for Government and Industry", a 67 page booklet detailing hundreds of products, their percentage recycled content and suppliers. You can view this guide at: www.ecorecycle.vic.gov.au.

EcoRecycle and the Municipal Association of Victoria are collaborating on a joint initiative called the Local Government Buy Recycled Alliance (LGBRA) which assists Councils in sourcing and purchasing recycled products. By demonstrating their commitment to the 3Rs ("reduce, reuse, recycle") the members of the LGBRA help to stimulate further demand for recycled products and support sustainable and stable markets for recycled materials collected from the kerbside. In addition, the City of Melbourne website hosts the "Melbourne Sustainable Business Directory", a free internet listing of Melbourne-based organisations offering products and services that promote sustainability (www.melbourne.vic.gov.au/sustainablebusiness).



400 year old Errinundra Shining Gums, Dingo Creek, Errinundra Plateau. PHOTO: TONY QUOLL, 2001

9.4 Recycling, Re-using and Re-filling Printer Cartridges and Toners

A significant landfill problem that is unique to the last couple of decades is that of printer and toner cartridges - truly a Technology Age waste product. Many companies offer a recycling service for print cartridges. This can take the form of re-manufacturing into new cartridges or re-filling with ink. The EcoRecycle Guide and, in fact, the telephone book, contains the details of many companies offering these services including, in most cases, the provision of quality guarantees. Some companies even pay businesses for their empty laser and inkjet cartridges. One such company in the Melbourne CBD is Cartridge Converters, 162 William Street, ph. 1300 360 052.

Close the Loop is a Melbourne-based company that collects and completely recycles all printer, fax and photocopier cartridges using innovative technology. Following collection, the cartridges are either sold back to the companies that made them for re-manufacture or they are fed into a unique shredding machine. This world-first, Australian designed and built machine separates the component raw materials, including toxic toner particles, several kinds of plastic, steel and aluminium, for recycling and reuse. The resulting materials are then made into useful items, including park benches, steel beams, outdoor furniture and office chairs. Some of the raw materials are sold back to the manufacturers to be made into new cartridges²⁵. Close the Loop, in conjunction with Planet Ark, has also set up drop-off boxes in post offices around the country to allow easy disposal of cartridges. This service can be contacted on 1800 242 473.

Some of the latest laser printers now use long-life toner cartridges that tend to be cheaper to use per page. For example, the Kyocera Ecosys uses a long-life print drum and only requires toner re-fills, thus reducing both environmental impacts and operating costs²⁶.

9.5 Dealing with Organic Wastes

The City of Melbourne and BP Australia have also teamed up to further reduce the volumes of waste they send to landfill. The two organisations are collaborating in a food waste collection program for businesses in the CBD. Collected material is composted by Organic Recyclers who provide each company with 240 litre waste bins which can be collected three times a week²⁷. All food and other organic scraps, including tea bags, generated by staff are deposited into these special bins which are then collected and composted off-site. Organic Recyclers can be contacted on ph. 9397 8366.

²⁵ Close the Loop website: www.closesthe-loop.com.au

²⁶ National Appliance and Equipment Energy Efficiency Committee (NAEEEC), *Green Office Guide*, 2001, at page 14.

²⁷ EcoRecycle Victoria case studies, available at www.ecorecycle.vic.gov.au

Lawyers for Forests recommends:

- ⊗ Your firm contracts with a company or companies to collect and recycle all recyclable wastes, including waste foodstuffs.
- ⊗ Your firm initiates an education program for all staff to inform them about which materials can and should be recycled.
- ⊗ Your firm replaces all polystyrene cups with mugs or glasses.
- ⊗ Your IT department ensures that all printer and toner cartridges purchased are re-manufactured or made from recycled material and are themselves recycled at the end of their useful life.

10. ENERGY

10.1 Introduction

An article in the 5 June 2003 *The City Weekly* stated²⁸:

A 1999 report commissioned by the Federal government's Australian Greenhouse Office found that, without drastic intervention, greenhouse [gas] emissions from commercial buildings would double in the 20 years from 1990 to 2010. Commercial buildings already account for almost 10 per cent of Australia's greenhouse [gas] emissions.

Every year Victorian businesses, government and individuals spend approximately \$8.5 billion on energy, yet they waste enough electricity to keep the MCG lights burning continuously for 1000 years. For example, the electricity wasted annually on lighting CBD office buildings alone is sufficient to power 160,000 suburban homes for a year. As one report observed²⁹:

Many people don't realise that operating office equipment can cost much more than the equipment costs them in the first place. For example, a photocopier that costs you \$4,000 to buy, that is left on continuously for seven years over its two-million copies life, may consume \$1,500 of electricity, \$24,000 of paper and \$15,000 of toner. The greenhouse gas emissions from supplying energy from power stations and manufacturing and disposing of the paper you use could exceed 80 tonnes of carbon dioxide, which is equivalent to more than the total greenhouse gas emissions of a typical Australian home over that seven-year period.

That same report included a case study investigating a typical large office environment of 200 people using 200 desktop computers, 20 networked printers, five fax machines, five scanners and five photocopiers. The case study compared the annual energy costs and greenhouse gas emissions for several scenarios, including where the equipment utilises Energy Star features (that is, the equipment features an automatic ability to power down or "sleep" when not being used and rapid recovery times). The results were illuminating³⁰:

Scenario	Annual energy costs & greenhouse gases emitted
Office equipment left on all the time and Energy Star features disabled.	\$42,000 worth of electricity per year and 280 tonnes of greenhouse gases emitted.
Equipment left on all the time and Energy Star features enabled.	\$13,500 and 90 tonnes of greenhouse gases emitted.
Equipment switched off at night (except 10 computers acting as servers and 1 fax machine).	\$8,000 and 70 tonnes of greenhouse gases emitted

²⁸ I. Svendsen, "The Green Dream", *The City Weekly*, 5 June 2003, at page 9.

²⁹ NAEEEC, *Green Office Guide* (fn 26) at page 3.

³⁰ NAEEEC, (fn 26) at page 19.

Energy Star was created in 1992 by the US Environment Protection Agency as an industry standard for energy-efficient electronic equipment. It has since been adopted internationally by many countries including Australia. Federal, State and Territory government agencies in Australia are cooperating through the national Energy Star Program (www.energystar.gov.au) to encourage the use of energy-efficient appliances, both in the office and at home. Energy Star reduces the amount of energy consumed by an appliance in two ways. It automatically powers down the item into a “sleep” mode when it is not being used and it reduces the amount of electricity used by the item when it is in “standby” mode. “Standby” power is the amount of electricity used by an electrical appliance when it is supposedly turned off. Between 12 and 15 per cent of the energy used in the home or office has been found to be due to electrical equipment on “stand-by” mode “leaking” power. Annually in Australia, this “leakage” is costing businesses and individuals \$500 million and contributing an enormous 5 megatonnes of CO₂ equivalent greenhouse gas emissions. Worldwide, “standby” power is estimated to cause up to 1 per cent of global greenhouse gas emissions³¹.

It is possible to organise an energy audit of your office, including the provision of a detailed report on the amount of energy you use and suggestions for reducing energy use. This report can then be used as a foundation upon which energy reduction targets can be built. More information on energy audits can be obtained from the Sustainable Energy Authority, a body set up by the Victorian government in 2000³².

10.2 Tips to Reduce Energy Consumption

There are many simple and immediate measures that your firm can implement to reduce energy consumption in the office environment. For example, at the end of each day or when lengthy absences from the office are anticipated, all office equipment (including computers, printers, photocopiers, coffee machines, and electronic whiteboards) should be switched off at the wall. These items use a significant amount of energy while in “stand-by” mode, even when they have been turned off at the appliance, but not at the power socket.

Try to use photocopiers as little as possible. For small numbers of copies, using the printer instead of the photocopier consumes less energy because the photocopier must heat the components that fuse the toner to the paper. These elements are often kept hot even when in “stand-by” mode so energy consumption remains high unless the photocopier is turned off or has a power management function activated. Components in laser printers also have to be heated however, as a general rule, less energy is used in heating these smaller appliances than photocopiers. Laser printers use a similar technology to photocopiers, so their energy consumption can be high, especially for the larger models³³.

Longer term strategies should include purchasing only the most energy efficient office equipment (photocopiers, printers, fax machines, scanners), such as those that carry the Energy Star logo and always have the energy-saving features enabled. For current stock without Energy Star capabilities, an alternative is installing an energy-saving software product, such as Energy Management Option (EMO). On a computer that has been inactive for a period of time, EMO saves all open data files, closes all applications and the operating system and switches the computer off. It then provides users with an on-screen, positive feedback log that shows the amount of energy, dollars and greenhouse emissions saved during the previous day and since installation of the software³⁴. While Energy Star laser printers now rival the better inkjet printers in “sleep mode” they still use more energy while printing. Accordingly, increased energy savings can be achieved by buying more energy efficient laser printers or by using inkjet printers.

Your firm should also purchase or lease only the most energy efficient white goods (as indicated by

³¹ K. Cogdon and M. Rout, “Watt a waste: Remote users out of control”, *MX*, 9 August 2002 at page 1. See also the Energy Star website www.energystar.gov.au/why.html

³² For more information see www.seav.vic.gov.au

³³ NAEEEEC (fn 26) at page 14.

³⁴ NAEEEEC, (fn 26) at page 11.

the star rating sticker), such as refrigerators, dishwashers, and so on. Other suggestions include reducing the number of overhead lights used, by simply removing them and installing motion detectors in each office, set to switch off the lights if the office is unattended for, say, 15 or 30 minutes. You should also encourage all employees who have a car as part of a salary package to opt instead for a bike and a yearly public transport ticket. To assist in this regard, it would be helpful to supply shower facilities (with water-efficient shower roses, of course) and bike storage areas at work.

Finally, your firm should consider subscribing to Greenfleet. Greenfleet is a not-for-profit organisation established in 1997 to tackle the environmental impacts of cars and other transport. It does this by promoting the development of fuel-efficiency technologies and cleaner fuels as well as organising the planting and maintaining of 17 native trees for every member car. These trees absorb the 4.3 tonnes of CO₂ greenhouse gas that the average car produces in a year as well as assisting with other problems including salinity, soil erosion and the restoration of essential habitat for endangered species. It costs just \$30 (tax deductible) per year for each car and to date Greenfleet has overseen the planting of 1.3 million trees throughout Australia on behalf of its members. Members include individuals, private companies and government departments or agencies. Greenfleet can be contacted via its website at www.greenfleet.com.au or on 0417 592 846.

Lawyers for Forests recommends:

- ⊙ **Your firm purchases or leases photocopiers, printers, fax machines, scanners and white goods for the office which are the most energy efficient, such as those that carry the Energy Star logo.**
- ⊙ **Your firm ensures that the energy-saving features of your office equipment are always enabled.**
- ⊙ **Your firm instructs staff to switch off all office equipment (including computers, printers, photocopiers, coffee machines, and electronic whiteboards) at the end of each day, preferably at the wall.**
- ⊙ **Your firm installs fluorescent, long-life globes and tubes rather than traditional light globes.**
- ⊙ **Your firm reduces the number of overhead lights used to illuminate offices and other areas.**
- ⊙ **Your firm installs motion detectors in each office, set to switch off the lights if the office is unattended for 15 minutes.**
- ⊙ **Through a range of incentives, including salary-packaging, your firm encourages bike and public transport usage by employees.**
- ⊙ **Your firm subscribes to Greenfleet.**

11. WATER

11.1 Tips to Reduce Water Consumption

Despite Australians being the highest per capita water users on the planet, Australia is the driest inhabited continent and is subject to devastating droughts. These droughts are predicted to increase in severity and regularity with the worsening greenhouse effect. Victorians, as the world's worst per capita greenhouse gas emitters due to our reliance on burning fossil fuels, are significantly contributing to the greenhouse effect. Droughts necessitate the imposition, in both urban and rural environments, of a raft of restrictions designed to cut consumption of water. All office workplaces can play their part in conserving this most precious resource.

As mentioned above, one simple way to reduce your law firm's contribution to the greenhouse effect is by purchasing "green energy". In addition, specific water conservation measures should include the following:

- ⊙ Ensuring that all toilets are dual-flush
- ⊙ Ensuring that one button does not cause every urinal to flush simultaneously and that the urinals do not flush automatically.

- ⦿ Replacing all showerheads with AAA-rated showerheads.
- ⦿ Only running the dishwashers when full (and then on econo-mode) and encouraging staff not to rinse crockery items, other than highly soiled items, prior to placing them in the dishwasher.
- ⦿ Immediately contacting building maintenance to fix any leaking taps or pipes.

12. RESOURCES AND CONTACTS

12.1 Publications

Is your Office Paper Environmentally Friendly?

Environment Victoria Inc., Friends of the Earth and The Wilderness Society. This brochure looks at the alternatives to Reflex and other paper brands sourced from native forest clearfelling. Available from those organisations.

Know your Paper - A Guide to Purchasing Recycled Content Office Paper Resource NSW. Phone: (02) 8837 6000. www.resource.nsw.gov.au

Green Office Guide - A guide to help you buy and use environmentally friendly office equipment, National Appliance and Equipment Energy Efficiency Committee (which includes the Sustainable Energy Authority Victoria. www.seav.vic.gov.au).

Green Electricity Watch, Survey of all the major electricity retailers, the products they offer and whether they guarantee never to source electricity from the burning of native forest materials. www.nccnsw.org.au/context/greenelectricity.html

Products made from Recycled Material - A guide for purchasing officers in government and industry, EcoRecycle Victoria. www.ecorecycle.vic.gov.au

The Buy Recycled Guide, Waste Boards of NSW. Phone: (02) 4940 0400; www.buyrecycled.wasteboards.nsw.gov.au

Our Forests, Our Future - Balancing Communities, Jobs and the Environment, Victorian government policy statement on forests, February 2002.

Time to Act. Everyday tips to help protect the environment, A simple guide to changes that can be made around the house and at work to help protect the environment. Environment Australia. Phone: 1800 803772. www.environment.gov.au

Shop Smart, Buy Green, A guide for consumers to help them and reduce their environmental impacts and save money at the same time. Environment Australia. Phone: 1800 803772. www.environment.gov.au

Product Innovation: The Green Advantage, An introduction to "Design for Environment" for Australian businesses. Environment Australia. Phone: 1800 803772. www.environment.gov.au

Fuel Consumption Guides, Australian Greenhouse Office. Phone: 1300 130606. www.greenhouse.gov.au/transport/fuelguide

Global Warming, Cool It, Information on Australian household's contribution to global warming and how to reduce these impacts. Australian Greenhouse Office. Phone: 1300 130606; www.greenhouse.gov.au/

12.2 General and Product Information

AUSTRALIAN CONSERVATION FOUNDATION has a large section on their website that explores the process of "greening" the office environment and contains plenty of handy hints. www.acfonline.org.au

AUSTRALIAN GAS ASSOCIATION has a downloadable directory of all gas appliances carrying a star rating in Australia. Phone: (03) 9580 4500. www.gas.asn.au/directory/index.html

BUY RECYCLED BUSINESS ALLIANCE is an organisation with over 30 member companies with a combined purchasing power of around \$30 billion. The members work together to promote the increased manufacture and purchasing of recycled content products. www.brba.com.au

COOL COMMUNITIES provides information to consumers to help them cut their level of greenhouse gas emissions. Phone (02) 6247 0877. Email: ccserac.greenhouse@ecoaction.net.au

ECORECYCLE VICTORIA - Victorian government agency that provides information on recycling, and waste management, buying recycled products and cutting energy and resource consumption. www.ecorecycle.vic.gov.au

ENERGY EFFICIENCY RATING allows consumers to learn the energy rating of domestic appliances and calculate the annual running costs of their household. Phone: 1300 130606. www.energyrating.gov.au

ENVIRONMENT AUSTRALIA is also known as the Commonwealth Department of the Environment and Heritage and its website has information on "Design for Environment", Public Environmental Reporting and the Life Cycle Assessment as well as case studies of businesses and products. Phone: 1800 803772. www.environment.gov.au/eecp.html

EPA VICTORIA has established a series of ecological "footprint" pilot studies. For further information and to calculate your firm's ecological "footprint" see: www.epa.vic.gov.au/eco-footprint

GREENFLEET allows car owners to offset their greenhouse emissions by paying an annual fee for the planting of trees. www.greenfleet.com.au

NSW SUSTAINABLE ENERGY DEVELOPMENT AUTHORITY also provides information on energy efficient appliances. www.seda.nsw.gov.au

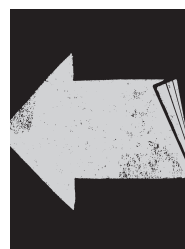
NATURE CONSERVATION COUNCIL OF NSW – ECOOFFICE - is an excellent resource devoted to reducing the environmental impacts of offices. www.ecooffice.com.au

SECURE DOCUMENT EXCHANGE uses a secure server to facilitate real-time document exchange and transaction-related discussion and electronic archiving of all documents and emails. www.securedocx.com

SUSTAINABLE ENERGY AUTHORITY VICTORIA provides information on energy efficient appliances and can conduct energy audits of office premises. www.seav.vic.gov.au

THE ONE STOP TIMBER SHOP provides an extensive list of recycled and plantation wood types (as well as those wood types to be avoided) for all construction requirements, as well as suppliers, designers and builders. www.timbershop.wilderness.org.au

WATER SERVICES ASSOCIATION OF AUSTRALIA conducts the National Water Conservation Labelling Scheme which sets out the water efficiency ratings of most appliances. Phone: (03) 9606 0678. www.wsaa.asn.au/rating.html



SCHEDULE 1 – NATIVE FOREST CLEARFELLING

1.1 Introduction

Between just 5 and 10 per cent of the old-growth forests that stood prior to the arrival of Europeans in Australia 200 years ago still exist today. Present rates of native forest logging in Australia are higher than they have ever been. Approximately 100 hectares, or almost 50 MCG-sized football fields, are clearfelled every day³⁵. Mechanisation means our native forests can be clearfelled faster and with the help of fewer loggers than at any time in our history³⁶. Export woodchip levels from Victoria and other states, particularly NSW and Tasmania, are at record levels and Australia now exports a staggering 6-7 million tonnes of native forest woodchips per year³⁷ (a tonne roughly equates to a cubic metre or a trailer-load of wood). One company alone, Gunns Ltd, removes almost 5 and a half million tonnes annually from the forests of Tasmania³⁸.

Further, cutting of native trees for firewood production for domestic wood-fired heaters and fireplaces almost matches export woodchip production at over 6 million tonnes per year³⁹. Land clearing in Queensland is the highest in the country⁴⁰ while clearing of tropical rainforests for wood products, agriculture and human settlements occurs at an unprecedented rate in Indonesia, Malaysia, Brazil, Africa and elsewhere. The Federal government's "Australian Terrestrial Biodiversity Assessment" (2003) starkly illustrates the parlous state of our environment –

- ⊙ At least 1595 native plant and animal species threatened with extinction;
- ⊙ Approximately 2900 ecosystems are threatened, of which almost half are eucalypt forests and woodlands;
- ⊙ The most damaging impact on threatened species is land clearing;
- ⊙ Only 67 per cent of ecosystem types currently protected in reserves;
- ⊙ Only 28 per cent of riverbank vegetation in good condition.

1.2 Impacts of Native Forest Logging

To provide access to industrial logging, an extensive network of logging roads is bulldozed through our native forests. Roading for logging operations opens up the forest to invasion by noxious weeds, feral predators and diseases such as myrtle wilt (which is a significant killer of native myrtles in our rainforests). Additionally, these new access roads are a significant risk to water quality, with sediment washing into rivers and streams.

The areas earmarked for logging (termed "coupes") are marked out then, usually, clearfelled. Most, but not all (see below under 1.3), suitable sawlogs are then taken for milling into floorboards, panelling, railway sleepers, building frames, and so on. The remainder of the diverse vegetation typical of old-growth forest either ends up as woodchips or is left on the ground in the coupe which is then burned using jellified petroleum, a napalm-like substance. The considerable ground disturbance caused by bulldozers or the ferocity of the afterburn often kill all seeds in the soil, so commercially valuable eucalypt species are seeded or planted. These management practices heavily favour logging interests but have massive and long term negative effects on the

³⁵ Senator Bob Brown - letter released May 2002.

³⁶ See, for example, M. Johnson, "An Overview of the Fine Wood Industry and Forest Based Tourism in South Western Australia", *Eco-Forestry Forum*, 16 March 2002 at page 3. The employment argument widely used is best illustrated by the fact that the Pemberton sawmill has declined in manpower from 1000 in the 1950s to just over 100 today, for a similar volume of logs "processed". See also, *It's Time to Save Victoria's Old Growth Forests* brochure, TWS, June 2003: "[T]he [East Gippsland] RFA [Regional Forest Agreement - signed in 1997] has failed to deliver jobs in the [East Gippsland] region. Over the past six years, jobs in the logging industry have fallen by 60%, yet since 1993/94, the number of hectares logged has more than doubled."

³⁷ ABARE *Australian Forest Products Statistics* June quarter 2000 at 62.

³⁸ Planet Ark (fn 12).

³⁹ J. Clark, ANU economist, *pers comm*. 16 June 2002.

⁴⁰ For example, the Queensland Government's 2002 report *Statewide Land and Tree-Cover Survey*, revealed that land-clearing in the Murray-Darling Basin (which comprises just 15 per cent of the state) in the period 1999-2001 was in excess of 500,000 hectares, a rate more than double that of any other state.

ecosystem, radically altering the type and number of plant species that return. Rarely is the original species mix (including tree-ferns and other understorey species) replaced, with emphasis often being placed on economically valuable species. Indeed in Tasmania, deadly 1080 poison is spread around to kill any native animals foraging on the regrowth.

Some of the detrimental impacts of this clearfell logging process can include –

- significant loss of topsoil which can be swept by rain from the clearfelled coupes and logging roads into waterways;
- loss of habitat trees (most trees take at least 150 years to form the nesting hollows needed by native birds and one third of native mammals);
- loss of species (local extinctions) and biodiversity;
- wetter forest areas becoming dried out and consequently more susceptible to fire;
- increased greenhouse gas concentrations as a result of-
 - (a) cutting down the trees that sequester carbon dioxide from the atmosphere and store it as carbon in the wood fibres (the Federal government itself estimates that logging native forests releases 23.7 million tonnes of carbon dioxide into the atmosphere every year); and
 - (b) burning the remaining wood.

In addition to the above, clearfelling in water catchments (as is currently occurring in catchments supplying 40 per cent of Melbourne’s drinking water) also affects water run-off and quality. As the young trees grow back, particularly the commercial eucalypt species that are targeted for regrowth by industry, they take up water that would otherwise flow into the creeks, rivers and subsurface aquifers. Mature forests, on the other hand, consume significantly less water.

Logging has been shown to reduce water yield from forested areas (particularly mountain ash regions) by up to 50 per cent after 30 years of regrowth⁴¹, with full recovery of water yield not occurring until the regrowth is approximately 150 years of age⁴². With logging cycles of 60-80 years, full recovery can never occur. It has been estimated that if logging is not curtailed in Melbourne’s water catchments, the long-term reduction in water yield will reach 60 billion litres (60,000 ML) per year compared to what old-growth forests would produce⁴³. The economic value of this extra water exceeds that of the wood products taken by many orders of magnitude⁴⁴. For example, this lost water would cost ordinary consumers in Melbourne, in today’s dollars, \$40,000,000 per year, and is equivalent to the amount of water used by 250,000 households annually⁴⁵.

The value of this lost water is not factored into the royalties or fees paid to the state by logging companies removing the trees. Most of the trees removed are then chipped and turned into paper products such as the Reflex suite of copy papers or exported overseas.

⁴¹ R. Hughes, *Logging and Water: Implications for Melbourne*, September 2002, DFNF/Myer Foundation at page 9, quoting O’Shaughnessy P and Jayasuriya M “Water supply catchment hydrology research – status report” (1991), Melbourne Water.

⁴² G. Kuczera, *Prediction of water yield reductions following a bushfire in ash-mixed species eucalypt forest*, (1985), MMBW; quoted in Hughes R (fn 41) at page 9.

⁴³ Hughes (fn 41) at page 17.

⁴⁴ Read Sturgess and Associates, *Evaluation of the economic values of wood and water for the Thomson catchment*, (1992); quoted in C. Miller, “Clear-felling: a big, burning issue”, *The Age* 13 May 2002. This independent report estimated that the value of the extra water that would flow into Melbourne’s Thomson Dam, if the catchment’s forest was left to grow old rather than be logged, would be approximately \$147 million versus the \$1.5 million the state government receives in royalties from the sale of the trees in that region to woodchipping interests.

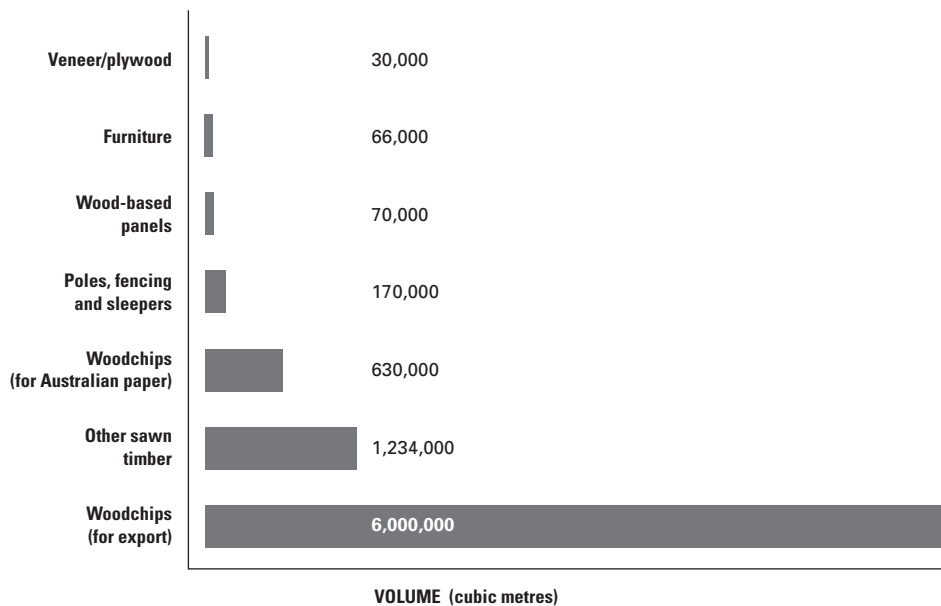
⁴⁵ Hughes (fn 41) at page 17.



Clearfell logging, Armstrong Creek catchment, part of Melbourne’s water supply. PHOTO: R.HUGHES, 2003

1.3 Trees into Paper

The vast majority of the wood taken from our remaining native forests (other than for firewood) is not sawlogs to be turned into high quality furniture or other value-added products but rather woodchips destined, predominantly, for paper production both in Australia and overseas (see graph below). As mentioned above, in many logging coupes the percentage of sawlogs recovered after a clearfelling operation is less than 20 per cent, with many trees arguably of sawlog grade quality ending up in the chipper. Clark calculates Victorian native forest wood use as comprising 48 per cent woodchips for export, 24 per cent woodchips for domestic processing and just 13 per cent sawn timber with 15 per cent made up of losses (including sawdust, shavings, chip losses and fines)⁴⁶. Accordingly, it is highly deceptive to describe the Victorian native forest logging industry as sawlog-driven.



WHAT HAPPENS TO AUSTRALIA'S NATIVE FORESTS? *Estimated production in the year 1999/2000.*

THE WILDERNESS SOCIETY, 2001

The Federal government, in passing the *Environment Protection and Biodiversity Conservation Act 1999*, abrogated its responsibility to care for Australia's few remaining world class forests. That Act excludes regulatory oversight of export volumes and the environmental effects of woodchipping operations in forests that are subject to Regional Forest Agreements (previously via the *Export Controls Act 1982 (Cth)* and the *Environment Protection (Impact of Proposals) Act 1974 (Cth)* respectively). As a result all oversight now lies with the states. Export woodchip volumes have been deregulated (unlike sawlog volumes) and have reached disturbingly large levels.

1.4 Does Clearfelling for Woodchips Make Economic Sense?

No. Unlike plantations, woodchip production from native forests is artificially propped up through significant taxpayer-funded subsidies. Hidden subsidies include:

- ⊙ Free use of the forest estate by the State for commercial forestry use.
- ⊙ No payment of rates to local government.
- ⊙ No component of costs for capital works, new roads etc.
- ⊙ No attribution of the cost of growing/production over the "life" of the forest.
- ⊙ Minimal road maintenance charges;
- ⊙ Minuscule, salvage type royalties (around 10c a tonne for some of the trees in East Gippsland⁴⁷) and low licence fees (if any) that, in combination do not represent the real value of the forests

⁴⁶ J. Clark, *The big trends in the Australian and Victorian wood and wood products industry*, paper and talk presented in Melbourne on 16 June 2002.

⁴⁷ Concerned Residents of East Gippsland, Royalty rates FOI request to DNRE, 2000-2001.

- ⦿ No requirement to account for the governments' costs in managing the industry;
- ⦿ No expectation of net profitable returns for reinvestment.
- ⦿ No tax equivalent payments back to State Treasuries.

Native forest timber is inappropriately priced on the basis of "residual" value, that is, after the deduction of costs of extraction and delivery, not on the basis of the full cost of production and a return to the public owner.

Plantation owners and other private growers, on the other hand, must pay the full costs associated with their businesses, including the purchase of land at market rates, roading and other infrastructure costs, local government expenses (rates, charges and capital infrastructure costs), market rates for saplings and seeds, costs of planting and maintenance of the crop (labour, pesticides, herbicides and other chemicals, and water).

As a result of the hidden subsidies described above (often termed "perverse", as they make no sense either economically or environmentally), the system provides a substantial economic advantage to those companies involved in native forest logging over plantation owners or other forest users. This infringes competitive neutrality principles because the entity that owns and manages the native forests has traditionally been a government department, which in Victoria is currently the Department of Sustainability and Environment.

The subsidies provided by the states are the primary cause of the ongoing violations by state forestry agencies of various clauses of the Competition Principles Agreement (including competitive neutrality and prices oversight) that mean the plantation and alternative fibres industries are economically disadvantaged⁴⁸. As stated in the Commonwealth Competitive Neutrality Complaints Office/Productivity Commission May 2001 Research Paper *Competitive Neutrality in Forestry*⁴⁹:

Underpricing by forestry agencies of logs from native forests [by failing to charge prices that reflect all the costs involved in logging] has hampered the development of private wood growing enterprises.

This fact is also admitted in the Victorian government's *Our Forests, Our Future* policy document, released in 2002⁵⁰:

Prices are not based on full cost recovery and are not market based ... Incentives for private forestry are reduced because native forest timber is underpriced.

Even so, we have more than enough hardwood and softwood plantations in the ground now to satisfy domestic needs, yet we continue to log our native forests⁵¹.

In summary, the subsidies provided by the government to the native forest logging industry, in combination with poor prices paid for wood pulp⁵², the ever-decreasing number of jobs in the industry⁵³, and the detrimental impacts on water and other forest utilisation industries (tourism operators, beekeepers, fine wood crafters⁵⁴, and so on) mean that even a purely economic analysis demands the cessation of clearfell logging in our remaining old-growth and high conservation value forests.

⁴⁸ Marsden Jacob Assocs
Forestry and National Competition Policy, April 2001 at ES.ii-vi.

⁴⁹ CCNCO / PC
Competitive Neutrality in Forestry May 2001 at x.

⁵⁰ Victorian Government,
Our Forests, Our Future,
"Pricing Native Forest
Timber" Fact Sheet,
February 2002.

⁵¹ J. Clark (fn 46).

⁵² J. Clark, "The global wood market, prices and plantation investment: an examination drawing on the Australian experience", (2001) 28(1) *Environmental Conservation* 53 at 60.

⁵³ For example, "Jobs in timber manufacturing have fallen by 4,020 (from 7,450 to 3,430) since 1990. Much of the attrition in jobs has occurred in the pulp and paper industry to the tune of 1,875 jobs", G. Greene quoting ABS figures in Timber Workers for Forests media release, 14 June 2002. See also M. Johnson (fn 36) at page 3.

⁵⁴ See, for example, Johnson (fn 36), detailing the impacts of current forest management policies on the Fine Wood Industry in Western Australia.

SCHEDULE 2 – AUDIT SHEET

This basic Audit Sheet allows for a preliminary assessment or “snapshot” of the current office environment and the equipment and processes in use. Completion provides the baseline against which improvements can be measured.

Paper

Printer paper brand/s: _____

Recycled content: YES NO

Photocopier paper brand/s: _____

Recycled content: YES NO

Toilet paper brand/s: _____

Recycled content: YES NO

Paper towel brand/s: _____

Recycled content: YES NO

OTHER PAPER PRODUCTS:

Product: _____ Brand/s: _____

Product: _____ Brand/s: _____

Recycled content: YES NO

Policies

- On purchasing paper that complies with the EPPA Specifications?
- On paper consumption reduction (including policies demanding double-sided copying and printing and only printing or copying if necessary?)
- On moving most paper-based transactions into the electronic realm?
- On energy consumption reduction (including turning off all appliances at the end of the day?)
- On purchasing “green energy”?
- On water consumption reduction?
- On educating staff about saving paper, energy and water?
- On providing an ethical superannuation option to staff?
- On purchasing environmentally-friendly office furniture and fit-out materials?

Office equipment

PRINTERS

	<i>Printer 1</i>	<i>Printer 2</i>	<i>Printer 3</i>	<i>Printer 4</i>
Brand: _____				
Double-sided printing capability?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Power management?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

PHOTOCOPIERS

	<i>Copier 1</i>	<i>Copier 2</i>	<i>Copier 3</i>	<i>Copier 4</i>
Brand: _____				
Double-sided copying capability?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Power management?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

FAX MACHINES

Fax 1

Fax 2

Fax 3

Fax 4

Brand:

- | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Default is not to print a confirmation sheet? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Power management? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Veneers and other office fit-out materials

- Sourced from plantations, preferably certified to Forest Stewardship Council standard or better?
- The firm's purchasing policy mandates the buying of office fit-out materials from recycled wood or sustainably managed plantation sources.

Virtual office

Proportion of transactions currently conducted in electronic environment

- 0-25% 26-50% 51-75% 76-100%

Proportion of transactions that could be conducted in electronic environment

- 0-25% 26-50% 51-75% 76-100%

- Electronic document storage and management system in place?

Consumables

PRINTER, PHOTOCOPIER AND FAX TONER CARTRIDGES

- made from recycled materials?
- refilled/recycled when empty?

Energy

Electricity provider:

Source of electricity:

- Renewable:
 - Wind
 - Solar
 - Hydro
 - Other
- Non-renewable, eg. brown coal
- Don't know
- Provider has undertaken never to source energy from the burning of forest biomass

Recycling

- Recycling scheme established?
ITEMS RECYCLED ON A REGULAR BASIS:
 - paper (including milk cartons)
 - glass (bottles, etc.)
 - aluminium and steel
 - plastics
 - photocopier and printer cartridges
 - organic wastes

Superannuation

Superannuation provider/s:

- More than one super fund/option is offered
- At least one ethical investment option is offered to all staff
- A "deep green" ethical investment option is offered to all staff

SCHEDULE 3 – CHECKLIST

This Checklist, in conjunction with the Guide and the Audit Sheet, has been designed to assist in transforming your law firm to a “forest-friendly” law firm. It should be used by those overseeing the implementation of the Kit’s recommendations. References in the Checklist are to the Guide with its more comprehensive examination of the problems this Kit is attempting to address.

The Checklist is divided into 4 sections. The first 3 sections are focussed on those improvements that can and should be implemented in the short term (simple ways of immediately lessening the firm’s impact on our environment and, in particular, our native forests), the medium term (changes that ideally should be implemented within a few months of the initial improvements) and the longer term (requiring more substantial capital outlay but which will ultimately reap economic as well as environmental benefits for the firm).

The Checklist should be used with the Audit Sheet results to provide a “before and after” comparison and assess progress in implementing the Kit suggestions. It may also be used for promotional and educational purposes both within the firm and externally.

1. SHORT TERM INITIATIVES

1.1 Decision to Embrace “Forest-Friendly”

(refer to sections 1, 2, 3 and Schedule 1 of the Guide)

- The firm has made a formal decision at the highest level to transform itself into a “forest-friendly” law firm.
- All staff have been notified of this decision and invited to participate in the transformation process.
- The firm has devoted sufficient resources to this end, possibly by establishing a committee or by appointing an individual to take the lead on formulating and implementing relevant policies.
- The firm has agreed to set up a total Environmental Management System (**EMS**). Significant resources have been devoted to this end.

1.2 Audit

(refer to section 4 of the Guide)

- The firm has conducted a “forest-friendly law firm” audit, possibly using the attached Audit Sheet, in all its offices in Victoria and elsewhere.

1.3 Paper

(refer to section 5 of the Guide)

- The firm has instituted a purchasing regime that mandates the immediate phasing out of all paper that does not comply with the EPPA Specifications, in particular –
 - an immediate refusal to buy Reflex and other Paperlinx products until that company agrees to cease logging native forests and to cease sourcing wood pulp from native forest logging operations here and overseas
 - an immediate refusal to buy products bleached using a chlorine gas process

- The firm has instituted a policy of buying paper products that, wherever possible, comply with the EPPA Specifications. This policy covers –
 - copy paper
 - toilet paper
 - paper napkins
 - tissues
- The firm has issued a directive to all staff to reduce the amount of printing carried out, with specific instructions to –
 - only print where necessary, particularly in the case of emails
 - always print double-sided, if duplexers (that is, appliances to enable double-sided printing and copying) are fitted
 - print 4 pages to a sheet for drafts
 - reuse one-sided copies for drafts
- The firm has committed itself to fitting duplexers to all applicable office equipment.
- The firm has committed itself to minimising paper use by purchasing and using –
 - cloth tea towels
 - cotton hand towels
 - reusable mugs
- The firm has committed itself to shifting all applicable paper-based transactions into the electronic environment.

1.4 Office Fit-outs and Furniture

(refer to section 6 of the Guide)

- The firm has instituted a purchasing policy that mandates the buying of office fit-out materials and furniture from recycled or sustainably managed plantation sources, wherever possible.

1.5 Energy

(refer to section 10 of the Guide)

- The firm has instructed all staff to switch off office appliances when not in use, preferably at the wall.
- The firm has instituted a purchasing policy stating that for all new office equipment purchases, only the most energy-efficient models and those with power management features (including “sleep” mode) will be bought.
- The firm has commenced an audit of energy usage in all offices and buildings occupied by the firm.
- The firm has investigated the costs of installing motion detectors in each office to automatically switch off lights after, at most, half an hour’s inactivity.
- The firm allows any employee entitled to a salary package that includes a motor vehicle component to opt for an equivalent entitlement involving public transport and/or cycling.
- The firm is a subscriber to Greenfleet.

1.6 Water

(refer to section 11 of the Guide)

- The firm has issued a directive to all staff to ensure the dishwasher is not operated unless full and crockery is not rinsed (unless highly soiled) prior to placing in the dishwasher.
- If the firm’s toilets are single flush or the urinal all flush automatically or after one button is pushed, the firm has commenced a feasibility study to examine retrofitting its toilets.

1.7 Recycling

(refer to section 9 of the Guide)

- The firm has commenced an audit of its waste streams in all offices and buildings occupied by the firm.
- The firm has commenced negotiations with one or more recycling companies to collect and recycle all its recyclable materials, including organics.

2. MEDIUM TERM INITIATIVES – 3 TO 6 MONTHS

2.1 Paper

(refer to section 5 of the Guide)

- The firm has purchased or leased and fitted duplexing machines to all printers and photocopiers.
- Default printing output on all machines is double-sided.
- The firm uses only copy paper that meets the EPPA Specifications.
- The firm uses only recycled content toilet paper.
- The firm uses only recycled content hand towels or, preferably, cloth hand towels and tea towels.
- All paper and polystyrene cups have been replaced with reusable mugs, glasses and cups.

2.2 Virtual Office

(refer to section 5.1 of the Guide)

- The firm has commenced a feasibility study into those client transactions that can be completed, in part or in whole, in the electronic environment.
- The firm has commissioned an electronic document storage and management system.

2.3 Energy

(refer to sections 7 and 10 of the Guide)

- The firm has contracted with an electricity supplier who guarantees never to source electricity from the burning of native forest material.
- The firm purchases at least 25 per cent “green energy”.
- For all new office equipment purchases, the firm buys only the most energy-efficient models and those with power management features.

2.4 Water

(refer to section 11 of the Guide)

- The firm has replaced all showerheads with AAA-rated showerheads.

2.5 Superannuation

(refer to section 8 of the Guide)

- The firm’s preferred superannuation provider offers all staff a Socially Responsible Investment option (preferably “deep green”).
- SRI alternatives have been fully explained to all staff.

2.6 Recycling

(refer to section 9 of the Guide)

- The firm has completed the audit of its waste streams in all offices and buildings occupied by the firm.
- The firm has contracted with an organisation or organisations to collect and recycle its waste –
 - paper
 - glass
 - aluminium and steel
 - plastics
 - photocopier and printer cartridges
 - organics.
- The firm has instituted a purchasing policy that mandates buying office equipment comprised of a significant proportion of recycled material and, preferably, may itself be recycled at the end of its life. Office equipment includes –
 - electronic equipment
 - furniture.

3. LONGER TERM INITIATIVES – 6 MONTHS TO 2 YEARS

3.1 Virtual Office

(refer to section 5.1 of the Guide)

- The firm has completed the feasibility study into those client transactions that can be completed, in part or in whole, in the electronic environment.
- The firm has moved all relevant transactions into the electronic environment.
- The firm has established an electronic document storage and management system.

3.2 Energy

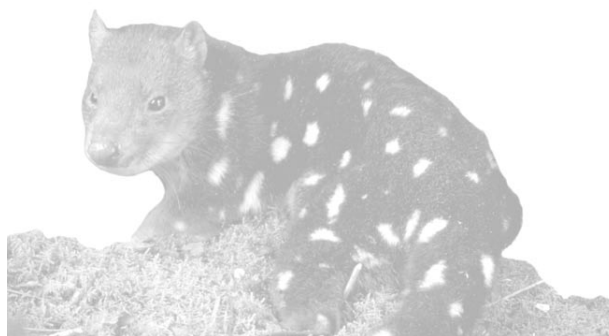
(refer to sections 7 and 10 of the Guide)

- The firm purchases 100 per cent of its energy needs in the form of “green energy”.
- The firm has completed installing motion detectors in each office to automatically switch off lights after, at most, half an hour’s inactivity.

3.3 Water

(refer to section 11 of the Guide)

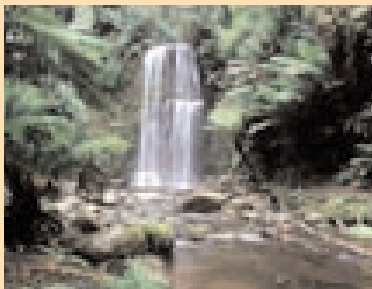
- The firm has replaced all single-flush toilets with dual-flush and retrofitted all urinals so that they do not flush simultaneously or automatically.



HOW CAN BEING FOREST-FRIENDLY BENEFIT MY FIRM?

**By implementing the suggestions contained
in this Kit your firm can:**

- ◉ Save money
- ◉ Obtain a competitive edge in tendering to clients on environmental grounds
- ◉ Use your environmental credentials as a marketing tool to attract the best graduates and prospective employees
- ◉ Demonstrate excellent corporate citizenship
- ◉ Increase staff morale
- ◉ Be a market leader



Beauchamp Falls, Otways

PHOTO: E.GREIG, 2003