



# Making Progress

ENVIRONMENT, SAFETY AND HEALTH - PROGRESS REPORT 2001

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**About This Report**

This is our fourth report on environmental, safety and health issues and covers the financial year ended 30 June 2001. Safety statistics include claims lodged or time lost up to 30 September 2001 relating to events in 2000/2001.

The report covers all wholly owned business units as at 30 June 2001, with the exception of the transport operations, most of which have been sold since the end of the reporting period.

Two businesses are included for the first time – the hardware and home improvement retailer Bunnings and the Curragh coal mine, located in Queensland's Bowen Basin region. The business units reporting again have summarised progress made towards achieving their priority objectives set out in the 1999/2000 report.

Since 30 June 2001, significant changes have occurred to our company's structure. The acquisition of Howard Smith Limited was completed in August 2001 and its Hardwarehouse and BBC hardware operations are being integrated with Bunnings. The takeover has resulted, also, in the creation of a new Industrial and Safety business unit. We expect that this business will be included in next year's report but the extent of coverage is yet to be determined.

The prime responsibility for the material contained in this report rests with the business units. Their staff collect data and prepare drafts

which are then reviewed by a small team in our Corporate Office. Authentication of the information is the responsibility of each business.

**Verification**

The process of checking factual accuracy and the scope of the reporting is reviewed in a number of ways.

As mentioned, initial drafts are discussed with our central office team and the business units are then required to compile detailed check lists which link statements in the report to either documentation or, in the case of more generalised comments, to sign offs by a business unit employee. These, in turn, are subjected to a sample verification check by representatives from our Corporate Solicitors Office and Group Risk Management department who prepare a report for senior management.

Finally, the reports are given to independent assessors from the Snowy Mountains Engineering Corporation (SMEC) who provide a statement on their findings. That statement appears on page 62. In addition, SMEC prepares a detailed report to our management to help us improve future editions of this document.

**Glossary**

An explanation of technical terms or words with a special meaning in the context of environment, safety and health issues can be found on page 63.

**Website**

The full report is available on our website at [www.wesfarmers.com.au](http://www.wesfarmers.com.au).

Additional hard copies can be obtained from the Public Affairs Department on (08) 9327 4251.

**Feedback**

Your comments are important to us. Please use the feedback form on the inside back cover to let us know what you think.

## Areas Covered



Business Management



Environment



Safety and Health



Community/Social

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Cover Photograph:

**Dune restoration at Wesfarmers CSBP  
on Cockburn Sound, Western Australia.**

# Our Commitment



Responsible companies worldwide are increasingly coming to realise the need for accountability in areas outside the core corporate objective of providing satisfactory returns to shareholders.

While financial performance remains, unquestionably, the major measure of success for corporations – and it is impossible to imagine a time when that would not be the case – we welcome this trend towards broader accountability.

We believe companies should demonstrate commitments in a number of key “non financial” areas. These include a high level of care and concern for the environment and for the safety and health of employees.

This is our fourth stand-alone document detailing environmental, safety and health performance. It aims to help our employees, shareholders and other stakeholders to improve their understanding of our approach to these issues.

Last year we engaged the Snowy Mountains Engineering Corporation (SMEC), which has been at the forefront of public environmental reporting in Australia, to provide independent verification of the report and to suggest ways in which it could be improved.

This year we have changed the format, in line with SMEC’s recommendations, to standardise the treatment of important indicators across our very diverse group of businesses. We hope this will facilitate year-on-year comparisons and improve transparency by exposing gaps in the reporting process. This report has, again, been verified by SMEC.

Despite the understandably greater focus on environmental concerns in recent years through issues such as ozone depletion, global warming, contamination, waste disposal and, most importantly in Australia, salinity and land degradation, this report focuses equally on safety. To this end, we set an annual target for all our businesses of reducing accident rates by half with the ultimate objective of zero.

There is no doubt, as has been said many times, that all of us can make a contribution to a more responsible society by the way we live and the choices we make. That opportunity is magnified in the case of large corporations such as Wesfarmers through the decisions of management and the actions of all our 27,000 employees. It is a significant responsibility, but one which we willingly accept.

I hope you will find this report informative. We are committed to improving our environmental and safety practices and the way we report them. I would very much appreciate your suggestions as to how this might be done.

**Michael Chaney**  
Managing Director

# About Us

We are one of Australia's largest public companies and a leader in terms of returns to shareholders.

We began life in 1914 as a farmers' co-operative and were listed on the Australian Stock Exchange in 1984 with a market value of \$80 million. By the end of June 2001 this had risen to \$7.6 billion and towards the end of calendar 2001, with the acquisition of Howard Smith Limited, it exceeded \$11 billion, ranking us in the top 20 of Australian listed companies. Australian investors are dominant amongst our more than 70,000 shareholders.

We now employ about 27,000 people on a full-time, part-time or casual basis. Our businesses cover retailing of home and garden improvement products and building materials; coal mining; gas processing and distribution; provision of rural merchandise, services and insurance; fertilisers and chemicals manufacture; industrial and safety product distribution; rail transport; and forest products.

Details of our business units covered by this report are contained in the adjacent overview section. In addition to these operations, we have a Corporate Office in Perth which employs about 100 people. It provides a range of services including administration; accounting and treasury; legal; human resources; business development; risk management; information technology; and public affairs.

The major contribution our company makes to the community is through the provision of services and jobs. But we believe also that it is important, through donations and sponsorships, to support community-benefiting organisations and causes which increasingly rely on business to assist their activities.

Each year our board provides significant such assistance, particularly with respect to medical research and the arts.

As Founding Sponsor of the Western Australian Institute for Medical Research we have committed \$5 million over five years to help develop a world-class adult health research centre in Perth. Our award-winning Wesfarmers Arts programme provides more than \$350,000 a year to support leading local companies in the performing and visual arts and to enable Western Australians to see and hear performances that might not otherwise reach Perth.

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In addition, we are developing major partnerships in the areas of indigenous advancement, education and youth development.

We have a long-standing relationship with the internationally-respected Earthwatch Institute through which we provide fellowships for employees across the group to participate in research projects in Australia and overseas. Our association with Earthwatch has been important in increasing awareness of broader environmental issues and contributing towards personal enrichment.



WESFARMERS LPG



# Business Overview

## Our Business, Our People and their Work Environment

We are Australia's fastest growing home improvement and building products retailer with a national chain of warehouse superstores and smaller traditional stores. We also operate the WA Salvage discount variety chain of stores in Western Australia. Towards the end of the reporting period, Wesfarmers

announced a bid for Howard Smith Limited, operators of the BBC and Hardwarehouse businesses and the takeover was completed in August 2001. With the acquisition of these businesses we now employ almost 20,000 people and our activities have extended to Tasmania and New Zealand.

We are a national retailer of Liquefied Petroleum Gas (LP Gas) and gas appliances. Through a network of depots, company-operated branches, dealers and franchisees we serve more than 22,000 bulk and 243,000 domestic customer installations. We employ about 550 people in Australia and 40 at an LP Gas distribution facility in Bangladesh, finished after the end of

the 2000/2001 reporting period. During the year, we completed a pilot Liquefied Natural Gas (LNG) plant at Kwinana (WA). The 40 per cent-owned Air Liquide WA is not covered in this report.  
(Along with the gas production business and the coal operations, we form the Wesfarmers Energy business unit).

We operate an LP Gas extraction plant at Kwinana (WA), which processes natural gas in the Dampier to Bunbury pipeline. We are a major supplier to the domestic market and the balance of our production is exported. We employ about 45 people at Kwinana. Production during the year was a

record 300,000 tonnes following the commissioning in December 2000 of a \$20 million plant extension. Domestic sales increased and export sales reached 234,000 tonnes compared with 159,000 tonnes in 1999/2000.

We mine coal at the Premier open cut at Collie, 200 kilometres south of Perth, and were formerly known as Wesfarmers Coal. We employ about 340 people engaged in overburden removal, coal production, plant maintenance and site rehabilitation. We sold 3.6 million tonnes of coal during the year, slightly below the previous 12 months. In November 2000 the company

celebrated 50 years of operation in the Collie Basin. Cardinal Contractors, a small earthmoving business we own, and the Bengalla mine in New South Wales' Hunter Valley, in which Wesfarmers holds a 40 per cent interest, are not included in this report.

We operate and market coal from the Curragh open cut mine near Blackwater, 200 kilometres west of Rockhampton in Queensland's Bowen Basin and were acquired by Wesfarmers Limited in June 2000. We employ about 200 people and sold 4.9 million tonnes of coal during the year. About half the mines

output was thermal coal supplied to Stanwell Power Station and the balance coking coal exported to Asia, Europe and South America. Development of the adjacent Curragh East deposit has begun.

We are a major manufacturer and supplier of fertilisers and chemicals to the agricultural, mining and industrial sectors and employ about 600 people across Western Australia. We have fertiliser manufacturing plants at Kwinana, Bunbury and Albany, with the announcement during the year of the

closure of the superphosphate works at Esperance. At our chemicals complex in Kwinana products include ammonia, ammonium nitrate, chlorine, caustic soda, sodium cyanide and a range of industrial acids and gases. The joint venture Queensland Nitrates project is not covered in this report.

We were formed in February 2001 following the merger of Wesfarmers Dalgety with IAMA Limited. Our business is Australia's largest supplier of agribusiness products and services. We employ about 2,000 people and operate from more than 400 outlets throughout the country, providing a

complete range of business services – merchandise, fertiliser, livestock and wool marketing, insurance, real estate and financial products. Wesfarmers Federation Insurance, part of Landmark, is one of Australia's largest rural and regional insurers.

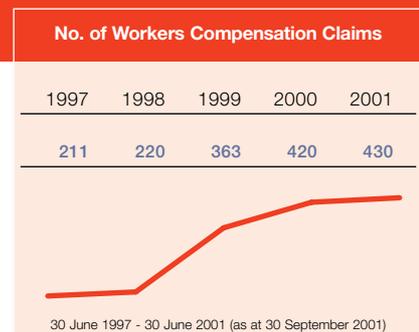
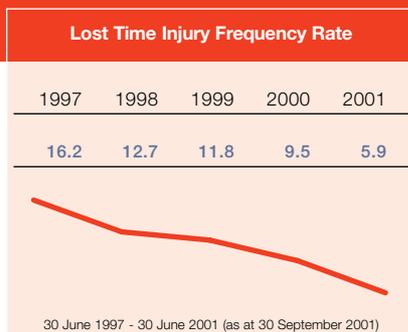
We are a major Western Australian forest products company, involved in hardwood sawmilling, timber processing and treatment and forest harvesting. We employ about 600 people, most of whom work in the south west of Western Australia in our operations at Pemberton, Deanmill, Collie, Yarloop and

Manjimup. We also have a processing centre at Welshpool in Perth and a pine log treatment plant south of the city at Mundijong. Our joint venture Wespine pine sawmill operation near Bunbury is not included in this report.

# Making Progress.

This is our first contribution to the Wesfarmers Environment, Safety and Health Report and it covers the activities of both Bunnings Building Supplies and WA Salvage. To assist in data collection and to improve our knowledge of environmental and safety issues we conducted a survey of all locations. With respect to safety, manual handling is the greatest cause of lost time injury. We are addressing this through training and by reducing the amount of manual handling through the use of new equipment. Our continued focus on safety has resulted in a significant downward trend of the Lost Time Injury Frequency Rate (LTIFR) with the achievement of a 38 per cent reduction for 2000/2001. Our major environmental issues relate to storage and handling of dangerous goods and hazardous substances in small consumer packages, waste disposal and wastewater run-off. We have committed greater resources to developing specific systems for the management of the dangerous goods and hazardous substances we sell.

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## Business Management

### Training

The continued development of our team members through ongoing training is one of the keys to our success. Training and development programmes place high emphasis on safety, health and the environment.

#### Environmental

Environmental awareness training is delivered through a comprehensive internal programme covering dangerous goods/hazardous substance storage and use and waste disposal.

This is part of the induction process for new team members and is also delivered to store management teams, safety committees and those involved in merchandising and fit-outs.

#### Health and Safety

Health and safety issues play a significant part in a three-day induction programme attended by all new team members, covering areas such as manual handling, operating dangerous equipment, and the handling of dangerous goods and hazardous substances.

At induction, team members are given a booklet titled "Bunnings and You", covering health and safety issues.

Manual handling is one of the major causes of injury in our workplace.

As part of our "back care" programme, external providers train store delegates who then run local sessions on a special lifting technique called "Manutention", which is designed to address our specific workplace environment.

Training is provided to team members who perform specific hazardous tasks including gas decanting, forklift and power saw operation, and the use of mini-platform lifting machines.

### Emergency

Emergency Control Organisation members at each location undergo external training for fire warden and evacuation duties. Locations also have trained first aid officers present at all times.

We are currently developing an Intranet that will allow team members to access information on safety training and hazardous substances, amongst other items.

### Compliance

#### Environmental

As a retail operation our environmental compliance issues are mainly concerned with:

- the storage and handling of dangerous goods and hazardous substances in small consumer packages;
- waste disposal of hazardous substances in small consumer packages; and
- waste water disposal or run-off to storm water or sewer.

Our stores contain dangerous goods in small consumer-sized packages of 20 litres or kilograms or less. These include flammable liquids, flammable gas, pool chemicals, acids and garden chemicals.

LP Gas decanting and exchange cylinders are also stored on sites with appropriate safe operating procedures and licensing as required.

A number of improvements have been made to store layouts to improve dangerous goods safe storage and handling standards and to assist with compliance to regulations.



**Stephani Milosevski, Customer Service, operating a cordless hand scanner on a heavy item in a customer's trolley.**

We have adopted a national best practice approach that meets or exceeds the standards in each jurisdiction that we operate.

Our internal compliance programme is modelled on:

- National Occupational Health and Safety Commission Standard for control of workplace hazardous substances [NOHSC: 3018(1994)];
- NOHSC Standard for Storage and Handling of Workplace Dangerous Goods [NOHSC: 2017(2001)]; and
- Australian/New Zealand Standards AS/NZS 3833:1998 The storage and handling of mixed classes of dangerous goods in packages and intermediate bulk containers.

### Health and Safety

We operate under a variety of health and safety legislation that varies between states. We endeavour to be proactive in complying with all the requirements of each jurisdiction. Through continuous improvement processes such as safety committees and hazard inspections we make every effort to address any areas of known risk or non-compliance that may be identified.

There were no health and safety prosecutions during the year. We received seven Safety Improvement Notices or Directions to Remedy from state authorities relating to:

- condition of the surface used to operate a forklift;
- proximity of an LP Gas decanting cylinder to a potential source of ignition;
- impact protection for dexion racks in drive through area; and
- potential exposure to insecticide in containers of imported product.

Each store is required to establish a health and safety committee, meeting on a monthly basis to identify and address any hazards. These committees are chaired by team members who play an active role in the health and safety performance of the store. They also provide a point of contact for team members to raise health and safety issues.

### Licensing and Approvals

Individual local government authority environmental requirements are addressed at the development application stage of each new site. Waste disposal permits are obtained for each warehouse site that operates a Hardware Café.

Dangerous goods storage licences are not a requirement for our business with the introduction of performance-based

legislation and our internal compliance programme based on NOHSC: 2017(2001) and AS/NZS 3833.

Victorian WorkCover Authority has conducted dangerous goods inspections at a number of stores confirming compliance to the code of practice.

## Management Systems

### Integrated Management System

We have developed an integrated environmental, health and safety management system to suit the unique nature of our warehouse style retail operation.

The system is focussed on the 'shop floor' and accountability at all levels throughout the business. It aims to prevent injury and accidents and reduce environmental impact through continuous improvement of operations as well as through ongoing awareness programmes in an effort to avoid complacency.

The integration between environmental and safety systems is achieved by cross-referencing of procedure manuals, training programmes, hazard assessment checklists and audits. Store safety committees also have a dual function in monitoring environmental issues.

Standards are continually monitored through a multi-layered system of self-assessments and ongoing audit programmes, ensuring standards are maintained and exceptions remedied.

Each month, minutes of safety committee meetings, injury registers and hazard inspection checklists are vetted and actioned by the complex manager, area manager and employee relations manager.

The introduction of a specific safety and environment internal audit programme, tied to a component of store bonuses, took place in June 2000.

The results of the audit for the reporting period showed a 92 per cent compliance level in the dangerous goods area and 83.5 per cent compliance on Occupational Health and Safety issues.

It identified a number of safety-related record keeping and administrative functions that required improvement. This has proven to be an effective tool in assigning accountability in stores for compliance to safety standards and ensuring appropriate resources are applied for an immediate remedy.

Our aim is to achieve 100 per cent compliance in future audits. Other field personnel from human resources, store support and loss prevention areas are also utilised to identify and report hazards evident during store visits.



**Joe Cali, Administration Coordinator, with a hazardous spillage kit next to a lockable cage used to store acids.**

In the event of any lost time injury, store managers are required to notify their area manager and the employee relations manager of the injury and conduct a thorough investigation.

Area managers review all current lost time injuries and report to the executive meetings, ensuring accountability and that all parties have taken appropriate action.

## Policy

We have an Occupational Health and Safety policy titled "Success through Safety". This policy says that we will actively pursue a safe environment for all who come in contact with our business and that the health and safety of our team members is our highest priority and a responsibility shared by all team members.

Our company credo, which is the statement of ethics that underpins our operation, refers to our duty to protect the environment and natural resources.



## Environmental

### Air (Atmospheric Emissions)

#### Dust

Wood dust is produced at most stores as a result of sawing for customers who request cut-to-length timber. Power saws are fitted with dust extractors and team members are required to wear proper protective equipment during their operation.

#### Odour

All odorous products such as manure, garden mixes and chemicals are in small consumer-sized sealed packages. External odour from these storage areas is minimal and ventilation systems reduce this to manageable levels inside stores for customer comfort.

### Greenhouse Emissions

We do not have an accurate measure of our emissions, but we do not believe this to be a major issue for our operations.

Such emissions would relate to energy consumption which we attempt to reduce by using computer controlled lighting systems and all but a very few of our forklifts are powered by LP Gas and batteries. The remaining diesel-powered units will be replaced with more environmentally-friendly units.

### Noise

In 1999 external consultants conducted an environmental impact survey covering noise, traffic and external lighting.

This focussed on the impact to nearby residences from a warehouse development. Noise from vehicles, power saws and public address systems were evaluated as having little or no impact on nearby residences.

Environmental impact assessments are submitted with development applications for new stores as required.

### Other Emissions

Carpark and outdoor lighting is designed to all relevant Australian standards and to local authority requirement to restrict "light spill" outside the site boundaries.

George Desira, Indoor Timber, using a saw bench.





**Cvita Sladic, Homewares, on a mini hydraulic platform used to safely access stock at height.**

## Water

### Consumption

Each Bunnings Warehouse incorporates a nursery reticulation system from the main water supply that is controlled by an automated preset timer system.

Reticulation cycles are programmed for early mornings to reduce waste from evaporation.

Four sites (Mile End in South Australia, Cannington in Western Australia, Minchinbury in New South Wales and Mackay in Queensland) reuse storm water run-off from the nursery to water landscape gardens or recycle back through the irrigation system.

### Discharges to Surface and Groundwater

Bunnings conforms to all local council requirements for carpark, nursery and storm water drainage. This issue is addressed during the development and building approval process.

The Mile End store has installed large capacity separation tanks in the carpark to capture litter and oil run-off prior to discharging into storm water.

## Waste

### Solid Waste

We estimate that an average warehouse produces approximately 3,676 cubic metres of solid waste per year, 41 per cent of which is cardboard packaging which is recycled. The remainder is disposed of to landfill.

Hazardous waste from spillage cleanups or returns of faulty products, that are not suitable for landfill disposal, are collected by suppliers or disposed of by contractors.

Waste disposal procedures and training are provided to locations to ensure that the correct process is followed.

We are currently reviewing our used packaging recycling procedures with a trial of plastic and cardboard bailing machines in Victoria. We are also investigating our position in relation to the National Packaging Covenant with a view of becoming a signatory for the Bunnings name brand products and our direct imports.

### Liquid Waste

Liquid waste is produced from food preparation in cafés, drainage from bin storage areas, infrequent wash downs of small hire equipment and rinsing of water-based paint stirrers.

Where required by local authorities:

- wash down sumps or separation units are installed to capture hydrocarbon run-off from machinery wash downs;

- bin wash down areas are connected to sewerage systems instead of draining direct to storm water; and
- locations with a café have a grease trap installed to filter contaminants before drainage to sewer.

Mechanical paint mixing machines are in place at all locations, replacing use of manual stirrers and resultant disposal of waste rinsing water. A minimal amount of manual mixing for water-based paint still occurs when there is a breakdown of the machinery.

Wastewater from manual mixing of water based paints has been reduced below 20 litres per week at locations by reusing buckets of water and allowing suspended solids to settle. The liquid waste is currently reused in garden beds with the suspended solids disposed of in bulk refuse.

## Resource Use

### Energy

The most significant energy resource used is electricity. High efficiency lamps and computer-controlled light switching systems are installed at warehouse stores to provide optimum performance with the use of ambient light via translucent roof sheeting to minimise electricity consumption.

This is an area of development where further improvements in efficiencies are being investigated.

We estimate that an average warehouse store currently uses about 666,148 kilowatt hours of electricity.

A detailed energy audit is being considered to assist us to further reduce consumption of electricity.



## Safety and Health

### Lost Time

Manual handling is the greatest cause of lost time injury in our business. Our aim is to continue to reduce this as team members become more proficient in the Manutention method.

Ongoing reviews of the working environment are also introducing changes to systems of work, reducing the amount of manual handling involved through the use of new equipment.

Our Lost Time Injury Frequency Rate (LTIFR) for 2000/2001 was 5.9, a 38 per cent reduction on the previous year which itself was significantly down on 1998/1999. This downward trend has been maintained during a rapid expansion of our warehouse stores and a significant increase in the size of our workforce.

## Workers Compensation

Whilst the number of actual workers compensation claims has increased during the warehouse rollout programme, this is mainly related to minor cuts and strains as evidenced by the falling LTIFR. In 2001, total hours worked increased by 18 per cent compared with the previous year, due to store openings and the increase in team member numbers, with a corresponding increase in workers compensation claims of less than three per cent.

Our injury management strategy promotes early intervention and return to work by encouraging direct communication between store management, the injured team member and doctors.

This proactive approach has led to greater communication between all parties and the opportunity to assess a range of alternative duties that injured team members are fit to perform. This means they can achieve earlier resettlement into the workplace after an injury to the mutual benefit of both parties.

## Hazard and Risk

### Programmes

Workplace hazard identification and risk assessment models are the mechanism used to identify and control hazards throughout the business.

High-risk tasks such as operating forklifts and power saws each have a standard operating procedure developed and a coaching logbook system for operators.

Other specific hazard controls include:

- dexion racking inspections to reduce the risk of collapse through damage, overloading or falling high-rise stock;
- pallet inspections to ensure soundness of any pallets used by forklifts;
- monthly hazard inspection checklists of entire store carried out by safety committees; and
- high housekeeping standards to reduce customer accidents on the premises.

### Emergency Response

We have a crisis management plan in place to address the range of potential emergency situations. Contingency plans are provided to address major accidents or security breaches.



Aisle blocked to protect customers during forklift loading of shelves.

These procedures are readily accessible in the event that they are required and emergency evacuation drills are conducted every six months.

Post-incident debriefing is offered to those involved in a critical incident with trauma counselling made available on site.

#### **Materials Handling and Storage**

Material Safety Data Sheets (MSDS) registers for hazardous substances used in the workplace are maintained at each store. An online database of MSDS is accessible by stores and can be printed out for customers on request.

Materials handling involves the unloading of deliveries and the stacking of merchandise on to shelves or high-rise storage areas at our stores and distribution centres.

A variety of materials handling devices are provided to ensure this takes place safely and efficiently. The step-through design of our check-out counters and cordless hand-held scanners at all points of sale, allow cashiers to scan heavy items in the trolley and avoid the risk of manual handling.

A forklift curfew exists on the retail floor where safety spotters and aisle barriers are used to restrict pedestrian access into the loading areas.

#### **Risk Assessment**

Our internal survey conducted in March-April 2001 reported four locations with asbestos material on site. In one instance a small outside storage shed was replaced. Other sites reported the material to be sealed or in a stable condition.

#### **Employee Wellbeing**

The wellbeing and personal fitness of our team members is integral to their health and safety in the workplace.

A series of life skills workshops called "investment in excellence" are provided, where team members are encouraged to bring their partners along to share in the experience.

Stress management workshops are conducted for management teams to encourage a healthy, balanced lifestyle. Annual flu injections are offered to every team member and we rigorously promote a non-smoking workplace.



## Community/Social

### Complaints

Store management reported dealing with nine informal complaints from neighbouring properties on minor issues related to lighting, traffic, noise and odour. Our survey shows that these were resolved locally.

### Liaison with Authorities

We seek to establish open working relationships with the authorities that regulate our business.

We are proactive in communicating with relevant authorities and have participated in public forums. For example, we have made submissions for the development of the NOHSC National Standard for Storage and Handling of Dangerous Goods.

Where the need for improvement is identified, consultation takes place with the relevant agency to achieve a model for compliance that meets an acceptable level of safety and is practicable for the business.

### Communication

Internal communication tools are used to ensure that safety and the environment remain front-of-mind workplace issues. These include hazard alert bulletins, health and safety suggestion boxes at each location, the "Bunnings Banter" quarterly internal magazine, and safety committee minutes posted on internal notice boards.

The further development of the Intranet will allow more access to this information and help to raise the profile of these issues.

### Website

Information about the activities of our operations is contained on our website at [www.bunnings.com.au](http://www.bunnings.com.au).

### Community Support

We demonstrate our strong commitment to the community we operate in through a National Community Involvement Strategy focusing on local, state and national organisations.

We support many community groups active in health, youth development, the environment, education and community welfare.

During the year, we donated almost \$1.5 million to various charities and community groups throughout Australia.

Community, health, safety and environment programmes of which we are major sponsors include the Juvenile Diabetes Research Foundation, the WA Police Service "Gurd" Alcohol & Drug Education Strategy, Emergency Services Bluey Day, various children's hospital appeals, the Cancer Foundation and the Australian Koala Foundation.

We also support a retailers' code of practice promoted by the Western Australian Government and anti graffiti and substance abuse programmes. This involves taking a responsible approach of restricting sale of spray cans or volatile substances in our stores that can be potentially misused.

### Awards

Our Mile End store in South Australia received an award for water care from the State Catchment Water Board for its storm water filtration and nursery run-off reclaiming system.

The community contribution of our Victorian operations was recognised by the Victoria Day Council's "2001 Good Corporate Citizen" award.

## Priorities for the Future.

- Continued implementation of our health and safety management systems to further increase safety awareness
- Train and develop our team members in environmental awareness
- Improvement in compliance levels for safety and environmental standards

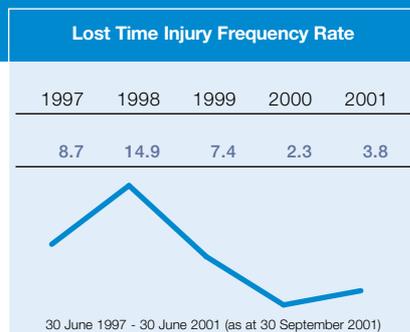
2000 Report Priorities	Outcomes
Improve safety performance. Ultimate target is zero LTIs with an annual reduction in the LTIFR of 50 per cent.	5 LTIs, LTIFR of 3.8 compared with 2.3* in the previous year.
Establish a programme to evaluate the contribution of LP Gas in reducing the emissions caused by higher carbon chain fuels.	Some preliminary work done, further resources applied to assist in quantifying beneficial contribution of LP Gas.
Third party certification of the Kleenheat Gas Occupational Safety and Health management system to AS 4801.	Certification is expected to be achieved in August 2001.
Provide on-line staff training utilising our operational training modules.	One module in place and others expected to come on line progressively by the end of 2002. Network of certified trainers in place.
Progressively establish a compliance programme addressing all aspects of the supply chain.	Auditing cycles established for all our assets and creation of compliance tracking mechanisms.

\*The reported rate of LTIFR for 1999/2000 of 5.4 was incorrect because it included LTIs occurring outside the reporting period).

## Making Progress.

Our business is diverse, encompassing national bulk and cylinder gas distribution, appliance sales and service of domestic, commercial and industrial customer installations. We are now also making inroads with our business into international gas markets. We focussed during the year on cultural change with respect to issues such as employee health and workplace safety and the development of a strategy to reduce the incidence of manual handling strain injuries. The need for this was reinforced by the increase in our Lost Time Injury Frequency Rate (LTIFR) from 2.3 to 3.8 which indicated we needed to do more in our determination to eliminate workplace injuries.

Environmentally, further expansion of conversion projects involving LP Gas/diesel mixes around Australia have proved successful in creating awareness of the benefits of cleaner energy sources. The 59 per cent expansion of the cylinder exchange programme has also contributed to improvements in hydrocarbon management and the reduction of emissions.





## Business Management

### Training

We recognise that workplace training is a key component in providing the basis for all employees and contractors to safely carry out their work activities and to give our employees further skills to enhance their career prospects. To this end, more training has been provided in the past year with 85 per cent of all staff Australia-wide having been trained in job-related modules compared with 73 per cent the previous year. The increase is due mainly to participation in formal in-house training with external providers carrying out more specialised training.

This year we introduced the Front Line Management Initiative in which 94 employees were trained in a number of management related training units by the Australian Institute of Management. These include techniques for planning and organising, workplace leadership, effective people skills and managing workplace priorities and quality customer service.

Also, a number of selected employees were trained in small group work to further their skills and provide an additional resource for employee training and contractor inductions.

#### Environmental

Environmental awareness training is provided to new employees. The training encompasses our environmental policy and the requirement for employees to be environmentally aware.

#### Health

Health awareness training is provided to our drivers to assist in both their personal health and fatigue management. Further health awareness training has been offered to all employees who have participated in the voluntary health surveys.

#### Safety

Safety has always been a core element in all training for employees and contractors. Using our own internal resources, we focus



**Safety Committee meeting at our head office in Myaree, Western Australia.**

on issues such as gas safety and fire training and emergency response. External experts provide specialist training for safety representatives and in areas such as manual handling.

#### Emergency

We conduct periodic emergency exercises in conjunction with other emergency authorities. The last such exercise was held at our Pinkenba terminal in Queensland.

### Compliance

#### Environmental

To help maintain legislative compliance with our environmental management system, we have a continuing relationship with a company specialising in environmental law. It provides periodic updates of any change to Western Australian legislation that may impact on our operations. This information continues to be disseminated via the Kleenheat Gas Intranet and by our "Safeside" newsletter.

#### National Pollutant Inventory (NPI)

We are exempted from reporting under the NPI until the 2002 financial year. We are in the process of preparing to meet these reporting requirements.

#### Health and Safety

We have worked with both state and federal government regulators to maintain both statutory and industry compliance. Two improvement notices were imposed by the Victorian WorkCover Authority this year. The first was resolved in conjunction with advice from the authority for an engineering change at our cylinder filling ramp at Keysborough which allows cylinders to be filled using quick fill air operated nozzles, reducing operator hand interactions by 50 per cent. The second improvement notice was in relation to the emergency plan at our terminal at Swan Hill, a major hazard facility. A resolution was being progressed at the time of reporting.



'Rigby' Newton, Ramp Hand, using a quick fill nozzle which reduces manual handling injuries and LPG vapour loss.



Kleenheat tanker arriving on Rottneest Island, Western Australia, making a regular delivery of LP Gas to the island's power station.



## Environmental

### Air (Atmospheric Emissions)

Many traditional storage and handling practices in the LP Gas industry allow for emission of product. We are currently using such initiatives as the cylinder exchange programme and remnant gas recovery to reduce gas emissions. Hardware items such as low-loss filling nozzles and "wet" filling hoses are also assisting us to further reduce atmospheric emissions.

#### Dust

Two of our terminals have had areas of roadways bitumenised to reduce dust and to minimise health risks to employees.

#### Odour

In its natural state, LP Gas is odourless. For safety reasons it is necessary to add a small amount of ethyl mercaptan to give the gas a distinctive smell and to allow its presence to be detected should a leak occur.

Major cylinder filling and bulk transfer operations occur in areas with low public impact. With the expansion of the cylinder exchange programme, decanting of LP Gas for retail sale has been substantially reduced, thereby making odour less of an issue.

#### Greenhouse Emissions

LP Gas is a cleaner fuel source than petrol or diesel and its increased use will contribute towards lower greenhouse gas emissions. We currently have no measure of our greenhouse gas emissions, but we actively promote greater use of LP Gas and, with increased resources, will begin measurement opportunities in the next financial year.

A particular feature is the partial substitution of LP Gas for diesel fuel in the engine combustion process, thereby producing improved environmental performance of those engines. Typically, a substitution rate of 30 per cent can be achieved in vehicles and, in static applications, 60 per cent rates are achievable. We now have a number of projects underway around Australia, involving vehicle fleets and power generation. In 2000/2001, approximately two million litres of LP Gas was used in these projects.

- continuing to demonstrate our commitment by using products that have minimal adverse environmental impact as well as actively maintaining a recycling programme;
- periodic review of waste generation; and
- scheduled audits of our environmental management system.

Specific commitments include:

- minimising product loss by recovering remnant gas from cylinders and tanks;
- expanding the cylinder exchange programme to minimise emissions from customer filling locations;
- growth of diesel fuel substitution projects; and
- production of Liquefied Natural Gas (LNG) to supply the heavy vehicle transport industry with a more environmentally-friendly product.

#### Quality System

We maintained third party management system certification to AS/NZS ISO 9001 (Quality Management Systems). A review of the management system audit process was undertaken jointly by us and Quality Assurance Services to streamline the certification requirements for each state and territory locality. This has now resulted in a more logical approach to national compliance.

#### Safety Management System

We are currently in the process of being audited for certification to AS4801: 2000 (Safety Management Systems).

#### Policy

Kleenheat has formal policies for Quality, Safety and the Environment. Each policy has been developed in accordance to the standards that, as a company and as individuals, we strive to attain. Wherever possible, our policies are publicly displayed and will soon be available on our Internet site ([www.kleenheat.com.au](http://www.kleenheat.com.au)).

## Management Systems

### Integrated Management System

Our Operations Management System (OMS) is used as a total Intranet-based, integrated documentary system, covering all compliance requirements for safety, quality and environmental management. Other OMS information available to Intranet users include links to standards and codes of practice, policies and health, safety and environmental information. The past year has seen further improvement and acceptance of the system and its integration by our certification auditors. The OMS is available to all employees via our Intranet system.

### Environmental Management Systems (EMS)

We maintained our third party certification to AS/NZS ISO 14001 (Environmental Management Systems) at Myaree and Kwinana in Western Australia.

With continual focus on the environmental impacts of industry, we strive to achieve compliance and acceptability of all our business activities by:

- operating to the requirements of our environmental management system;
- ensuring that an environmentally proactive culture is fostered by employees through training;

We have also developed a capacity to produce Liquefied Natural Gas (LNG) to be used as a fuel in the heavy vehicle transport industry. A trial LNG production plant came into operation at the Wesfarmers LPG plant in Kwinana in August, 2001, producing three tonnes of LNG a day. The plant's output is being used to fuel six new gas distribution vehicles fitted with natural gas engines as well as a number of customer vehicles. Further production capacity will be developed as the LNG market increases.

#### Noise

We have continued to address the issue of noise generation during transfer from storage installations to bulk tankers. Ninety eight per cent of our 103 tankers are fitted with reduced noise pumping equipment and the remaining vehicles will be equipped by the end of the next financial year.

#### Water

##### Consumption

We are a relatively small consumer of water, but are not currently able to accurately quantify usage. One of our priorities for the next year is to develop processes to measure and examine water use and other potential water reuse opportunities.

##### Groundwater

Water management is not a major issue. Our truck washing and fire containment systems to capture wastewater have been designed to be both simple and effective.

Fire containment deluge system water is recycled where possible to reduce the rate of replenishment of water storage tanks and to supply natural sumps and dams. Fire containment systems are tested each week, as part of our safety management system.

Our road upgrade projects at Kwinana (WA) and Wingfield (SA) will enable more rainwater run-off to be reused.

##### Reuse

Truck washing water at Kwinana goes through an oil/water separator and filtration system and is reused for landscape reticulation. At Myaree (WA), wastewater is captured by an oil/water separation process, with the water being discharged into the sewer under licence.

#### Waste

We manage the disposal of oil, filters, rags, tyres, batteries, paper and scrap metal under a total waste management plan using appropriately licensed contractors.

Office staff take part in paper and battery recycling programmes. All rubbish disposal is contracted to licensed operators and waste oil from workshops is recovered.

**Glade Eves, Test Station Signatory, recovering remnant gas from a cylinder to minimise product loss.**



# Making a Difference

## Kleenheat LP Gas Cylinder Exchange

Kleenheat's LP Gas cylinder exchange programme has seen a phenomenal growth over the 2000/2001 financial year, with a 59 per cent growth of the business, equating to a further 307 exchange cylinder cages being installed around Australia.

Most significantly, by growing the cylinder exchange business, gas vapour emissions have been reduced by around 10,500 litres, due to the lessening need for customers to decant cylinders. There has also been a reduction in the safety risk to customers where the programme is in place, by eliminating the requirement to decant cylinders in service station forecourts.



**Kwik Gas cylinder exchange facility at a service station in Leeming (WA).**

## Land

### Contamination

We lease three sites that have some contamination due to their previous usage as petroleum terminals and gas works. We are not responsible for remediation of these sites, however we actively assist the relevant authorities with monitoring and remediation planning as applicable. For example, we are currently working with the Armidale City Council in New South Wales and a developer to identify suitable alternative sites for our operations there.

The Myaree (WA) site has undergone a contamination survey by an independent assessor. An underground waste oil tank needs to be managed, but no other problems were identified at this location.

### Resource Use

#### Fuel

With a heavy vehicle fleet of approximately 160 units, we consumed approximately two million litres of diesel fuel in the year. Our passenger vehicle fleet of approximately 280 units runs on a number of configurations comprising single fuel petrol, dual fuel and dedicated LP Gas. Petrol use was approximately 250,000 litres and LP Gas use was approximately 675,000 litres.

The distribution of LP Gas throughout Australia is carefully scheduled to maintain both a safe journey management system and the most efficient fuel usage by vehicles. Our repair and maintenance system also ensures that vehicles are serviced to the manufacturers' standards to ensure maximum fuel efficiency.



## Safety and Health

### Lost Time

We are committed to providing an accident-free and healthy environment for all employees, contractors and the public in line with the targets stated earlier in this report. We are also further developing statistical analysis to improve our safety management systems.

Our Lost Time Injury Frequency Rate (LTIFR) is now calculated for both employees and delivery contractors on a monthly basis and this information is reported to our board every two months, together with other relevant safety indicators.

We recorded an LTIFR of 3.8 as against our target of 1.6. The rate for delivery contractors, as recorded from November 2000 was 0.7.

### Workers Compensation

There were 29 workers compensation injury claims in addition to the five LTIs in 2000/2001. Our workers compensation Injury Frequency Rate was 21.4 and the delivery contractor rate was 5.5 since recording of contractors began in November 2000.

### Hazard and Risk

#### Programmes

We are finalising our safety case and emergency plan at the Swan Hill terminal to comply with Victorian major hazards facilities regulations and expect the documentation and review process to be completed in the first half of 2002.

In Western Australia, relevant documentation in regard to the Kwinana Terminal, also a major hazard facility, has been lodged with the Department of Minerals and Energy and is subject to ongoing development.

We will respond to legislative changes in other states as required, using our Operations Management System as the basis for compliance.

### Emergency Response

We conducted an emergency exercise at Pinkenba, Queensland, in October 2000, involving a simulated gas leak. The Queensland Gas Examiner used this exercise to test the government's system for response to gas emergencies.

### Materials Handling and Storage

Manual handling activities present the highest risk of injury to our employees, accounting this year for all of the lost time injuries and 61 per cent of all workers compensation claims.

We have addressed this issue by conducting a manual handling risk study of cylinder filling, repairs and testing. We have also developed an interactive training package and this is progressively being delivered to all staff.

### Risk Assessment

Recognising the risks associated with driver fatigue we lodged with WorkSafe Western Australia a fatigue management plan, to comply with the WA "Code of Practice for Commercial Vehicle Drivers – Operating Standards for Work and Rest". We apply the Western Australian code covering scheduling, initial training and training refresher for all bulk distribution drivers to our national operations.

Major elements of the code of practice are included in the "Fit to Drive" section of the bulk driver manuals distributed to all drivers.

Fatigue management is also a component of our delivery scheduling software.

In 2000/2001 we operated approximately 160 heavy goods vehicles throughout Australia for the delivery of LP Gas in bulk and cylinders. During the year, the heavy goods fleet travelled approximately 15,500,000 kilometres and vehicles were involved in eight on-road accidents, three of which resulted in injuries to the public. The first, in south-west Western Australia, was due to a vehicle travelling on the wrong side of the road and colliding with a gas tanker, resulting in injuries to two people. The second accident, in metropolitan Perth (WA), was again due to a car travelling on the wrong side of the road and colliding with a tanker, injuring one person. The third accident, in Adelaide, resulted in injuries to one person. In all three accidents, our drivers were found not to be at fault.

Our passenger vehicle fleet travelled approximately 7,000,000 kilometres in the year. During this time, our fleet was involved in 24 on road accidents with no injuries to employees or the public with one exception. Regrettably, one road accident, occurring south of Nowra (NSW) resulted in one fatality and multiple personal injuries when our vehicle collided with a school bus. This accident is currently subject to ongoing inquiry.

Another 11 sites were assessed for asbestos bringing the total to 34 nationally with eight sites identified as containing asbestos.

These are being periodically monitored and action taken as required. Further sites will be assessed in the future.

### Employee Wellbeing

Health assessments of 235 employees were conducted between April and September 2000 in all states. Initiatives to address issues arising from the survey will be implemented. These include: skin cancer checks; the introduction of a health library; a smokers quit pack and patches offer; and seminars on posture, nutrition and general fitness.



## Community/Social

### Complaints

Customer feedback is important to our business and we have developed procedures and information on handling complaints in compliance with AS 4269-1995. Problems, incidents and near misses reported to our Customer Service Centre are recorded electronically and referred to the relevant person and acted upon.

### Communication

We participated in the production of a video with Cleanaway, the Western Australian Government and nine local government authorities to promote recycling and other environmental issues - such as the automotive use of LP Gas. This video was distributed to more than 138,000 Western Australian households.

### Newsletters and Reports

We publish quarterly the "Safeside" and "Gas-Bagging" newsletters to update employees on our activities.

Internal safety bulletins addressing topical issues are posted on our Intranet.

### Website

We are committed to raising community awareness of LP Gas safety and environmental issues, including the provision of a dedicated area on our website at [www.kleenheat.com.au](http://www.kleenheat.com.au). We provide LP Gas safe handling and storage training to any interested public group.

Our Intranet provides the primary means for all employees to record incidents, problems or near misses which occur in the workplace. The Intranet has also been redesigned with a strong, easily readable safety focus.

### Liaison Groups

We are an active member of the Australian Liquefied Petroleum Gas Association (ALPGA). Through ALPGA and in our own right we contribute to the development of Australian Standards.

## Priorities for the Future.

- Improve our safety performance. Zero Lost Time Injuries continues to be our target, with an annual reduction of 50 per cent in our LTIFR
- Implement strategies to improve our safety culture, so that all employees contribute to our safety management system
- Increase the ability to have "On-Line" training for all employees
- Develop environmental objectives and targets and seek opportunities to further enhance our environmental management system
- Further expand established initiatives such as the cylinder exchange and diesel fuel/LP Gas substitution programmes. Develop Liquefied Natural Gas (LNG) markets



WESFARMERS LPG

### 2000 Report Priorities

### Outcomes

No workplace injuries and maintain LTIFR at zero.

LTIFR of zero. One employee injury requiring medical treatment, one contractor medically treated.

Ongoing identification and control of hazards.

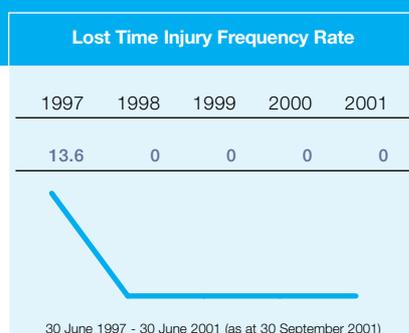
Continued use of site Permit to Work system.

No significant releases of hydrocarbons to the atmosphere.

No significant releases. One minor natural gas release to atmosphere following the operation of Pressure Safety Valves with no threat to employees or the public.

## Making Progress.

The maintenance of our zero Lost Time Injury Frequency Rate (LTIFR) was a highlight of this year's safety performance. Workforce exposure hours without a lost time injury totalled 358,371 by the end of June 2001. This included major work associated with the plant expansion project. We are continuing to address noise reduction in conjunction with the Department of Environmental Protection (DEP). As the report mentions, we conducted a stage one environmental site assessment, including an asbestos audit during the year and this will be progressed next year.





Checking fire pump equipment at our plant in Kwinana, Western Australia.



## Business Management

### Training

#### Environmental

Our induction programme for all employees addresses environmental awareness of their work area with emphasis on response to product spillage and general housekeeping. Our training programme contains procedures for managing environmental licence conditions.

#### Health

Voluntary health and fitness assessments using the services of an independent consultant are conducted every two years. Health management plans are discussed with each participant following these assessments.

#### Safety

All employees and contractors must attend a safety induction programme before being allowed access to the process area to ensure they are aware of hazards, work permit requirements, occupational health and safety and emergency response procedures.

All employees undergo vocational training to meet the requirements of their position, with competencies measured against national standards (where available). In addition, a comprehensive competency-based structured training programme is in place for all process operators, involving demonstration of acquired competencies against internal and national standards.

#### Emergency

All employees undergo annual basic first aid and life support training, while supervisors complete advanced first aid training. A comprehensive emergency response training programme is in place relevant to each employee's position. This includes basic, intermediate and advanced fire fighting, breathing apparatus training, search and rescue and fire ground command programmes. Training under this programme is conducted annually.

### Compliance

#### Environmental

A noise management plan has been submitted to the DEP to address non-compliance with the Environmental Protection (Noise) Regulations, 1997.

#### National Pollutant Inventory (NPI)

NPI air emissions were estimated for oxides of nitrogen, carbon monoxide, nickel carbonyl, heavy metals and associated compounds and particulate matter. The NPI data for the reporting period was submitted to the DEP in October 2001.

#### Licensing and Approvals

The plant operates under licences issued from the DEP and the Department of Minerals and Energy (DME). These licences are issued annually and include conditions, with which we comply.

Following our submission of a Works Approval Application to the DEP for expansion of the plant to increase gas production capacity, the Environmental Protection Authority determined that the expansion project be assessed at the level of an Environmental Protection Statement, including Ministerial Conditions which apply to the existing and upgraded facilities. In December 2000 the \$20 million expansion was commissioned.

### Management Systems

#### Environmental Management System (EMS)

No formal EMS is in place. However, environmental policy and procedures are addressed in our Safety Report and our DEP Licence conditions.

### Quality System

We have a Quality Assurance system meeting the requirements of ISO 9002 for the testing, inspection and servicing of safety relief valves. These valves are tested at prescribed periods. An independent audit was undertaken in February 2001.

### Safety Management System

All health and safety policies and procedures are referred to in our safety report.

The report is subject to independent and regular audit and is overseen by the DME. Specific health and safety procedures cover working with high voltage electricity, accident and incident investigation, manual handling, working in confined places, height safety and job hazard analysis.

All modifications to the operating plant are reviewed and approved by senior plant management prior to implementation. Procedures ensure that all changes are fully documented to allow independent audit and review.

### Policy

We are committed to providing a healthy and safe workplace for all employees and visitors to the Kwinana extraction plant and our gas export facilities. Identification and control of hazards and prevention of incidents and injury are of the highest priority. This is achieved through a consultative process involving employees and management, defining and implementing training, policies and procedures for the wellbeing of all employees.



## Environmental

### Air (Atmospheric Emissions)

#### Dust

To control dust, large areas of grass have been planted and are maintained.

#### Odour

Propane and butane are naturally odourless. For safety reasons, we are required by legislation to inject low levels of ethyl mercaptan (odourant) into the gas. This gives it a distinctive odour allowing leaks to be detected. The injection system is closely monitored as even minor drips can give rise to offensive odours. Any leak is quickly repaired and spillage contained and neutralised. No odour complaints were referred to us by the DEP in 2000/2001.

#### Greenhouse Emissions

During the year we released an estimated 290,000 tonnes of carbon dioxide equivalents. This is an increase on the estimated 200,000 tonnes released during the previous year due to the commissioning of the plant upgrade leading to increased production levels and higher fuel gas consumption.

#### Noise

The extraction plant operates 24 hours a day. There are numerous items of rotating equipment giving rise to a low level of background noise at the plant boundary. An environmental noise survey conducted during 2000 found that this noise was slightly in excess of that allowed for neighbouring industry at the plant boundary. A comprehensive survey was undertaken to determine the extent to which our plant is contributing to this boundary noise level. This survey confirms the noise exceedance to neighbouring industry. A noise model has been developed using the survey data.

**Paul Buckingham,**  
Shift Controller, at the  
new LNG pilot plant,  
Western Australia.



**Geoff Morgan, Shift Controller, using gas detection equipment to check for leaks.**

This model predicts we may slightly exceed the acceptable noise levels at residential areas in Medina. A noise frequency analysis was undertaken to determine our actual contribution to the overall noise levels in that suburb. In addition, a noise reduction management plan was developed and submitted to the DEP aimed at reducing noise emissions from the plant as far as is practicable.

In addition, a consultants noise report detailing the mapping of significant noise sources within the plant was received in April 2001. Its recommendations will be assessed and may lead to proposals for noise reduction projects.

**Other Emissions**

There have been no environmental incidents involving significant release (defined as a release which may affect areas outside the plant) of LP Gas, natural gas or condensate to the atmosphere since the commencement of plant operations in 1988. There have been occasional minor LP Gas releases (defined as those contained within the plant) that have been quickly brought under control. A DME report was received in September 2000 regarding a minor natural gas release in May 2000. The DME concluded that no breach of legislation had occurred. The DEP had not reported its findings by the end of the year.

There was a minor natural gas release to atmosphere during a planned shutdown in July, following the operation of Pressure Safety Valves on the absorber for approximately one minute. The release was safely dispersed and did not pose any threat to employees.

During plant shutdowns, or occasionally to control pressure in operating vessels, gas has to be released to the atmosphere. This gas is safely disposed of through combustion flares. The flare tips are continuously monitored in the control room via a closed circuit camera.

In the event of a high flaring rate, additional combustion air is fed to the flare tips to prevent the formation of black smoke.

There are minor emissions of LP Gas to atmosphere at the completion of loading of road tankers when the hoses are disconnected. A project to reduce the level of these emissions is about 40 per cent complete. Modifications have been made to the flare header to accept these emissions.

**Water**

**Consumption**

We consumed an estimated 9,850 kilolitres of water during the year.

**Groundwater**

Three groundwater bores operating on the site provide water for garden reticulation and for emergency response.

**Discharges to Surface and Groundwater**

Storm water run-off from the paved sections of the processing areas is directed to oil/water interceptors where any oil present is skimmed off and recovered. A contract waste disposal firm collects this oily water waste.

**Reuse**

Firewater used on the plant is returned to the fire water storage pond from some areas of the plant for reuse.



**Kevin Gohrt, Maintenance Technician, testing safety relief valves.**



Our Kwinana plant from the air.

## Waste

### Solid Waste

A waste management contractor removed about 460 cubic metres of solid waste (general site waste) during the year for offsite disposal. There is no landfill of waste on site.

### Liquid Waste

An oil-recycling contractor collects oil wastes (lubricating and seal oil).

No liquid waste was generated on the site during the year.

### Recycling

Paper and cardboard recycling bins were introduced on site in February 2001 as part of our Paper Products Recycling Policy and about 12 cubic metres of paper and cardboard were removed by our solid waste contractor for recycling.

## Land

### Flora and Fauna

Extensive landscaping including trees and shrubs is maintained to improve the appearance of the facility, while areas of remnant native vegetation are retained.

### Contamination

A soil test in May 2000 revealed the presence of elevated levels of zinc and lead at one location on the site. The levels recorded were substantially higher than would normally be found in the Kwinana area and exceed the DEP's criteria for use as clean fill. They do not exceed levels set by the National Environmental Protection Council for industrial or commercial land uses. A stage one environmental site assessment, including an asbestos audit, was conducted in June 2001. Further assessment will be carried out if required based on the findings of the stage one survey.

### Rehabilitation

After completion of the \$20 million plant expansion the re-instatement of grassed areas was completed.

## Resource Use

### Fuel

During the year 32,204 tonnes of natural gas was used as fuel, 17,169 litres of diesel, 24,942 litres of autogas and 7,718 litres of petrol.

### Energy

Electricity consumption for the year was 6,300,000 kilowatt hours.



## Safety and Health

### Lost Time

Lost Time Injury Frequency Rate (LTIFR) and the Average Time Lost Ratio (ATLR) are key performance indicators that are calculated monthly and reported to our board every two months. We have not historically included contractor incidents in calculating our safety performance indicators. As mentioned at the start of this report, there were no lost time injuries during the year and workforce exposure hours without a Lost Time Injury (LTI) increased to a new record of 358,371. The last recorded LTI was in August 1996.

There were four employee first aid cases, one requiring medical treatment, and six contractor first aid cases, one requiring medical treatment.



Brian Hodson, Plant Operator, directing a fire hydrant towards the Liquid Extraction Plant.

## Workers Compensation

There were two workers compensation claims during the year, involving minor medical treatment. There have been a total of six claims over the past five years

## Hazard and Risk

Our plant has been designed with a very low environmental risk. All products will evaporate if released to atmosphere, leaving no soil or water-contaminating residues.

In order to protect employee and public safety, a comprehensive Hazard Control Plan was put in place at commencement of plant operations in 1988, establishing procedures for control of change to the plant, environmental protection, employee training and safety and emergency response. The Hazard Control Plan was converted to a Safety Report following the introduction of the National standard for Control of Major Hazard Facilities [NOHSC: 1014 (1996)].

### Emergency Response

We have detailed emergency response procedures. They describe the organisation and training of employees and contractors to reduce the risk to personal safety and the surrounding environment in the event of an emergency.

### Materials Handling and Storage

We operate under an annual DME licence covering storage of dangerous goods. Our propane and butane products and condensate by-product are defined as "Dangerous Goods" under the Dangerous Goods Storage Regulations administered by the department. The products are stored in vessels which comply with both Australian and international engineering standards. Small quantities of diesel are stored on site within bunded areas. Backup supplies of lubricating oil and heat transfer fluid are kept in 200 litre drums in a bunded oil storage area.

Odourant is pumped directly from sealed iso-containers. The empty containers are returned to the supplier for re-use, eliminating any residual odourant disposal requirements.

Liquid nitrogen is stored in an insulated vessel and is used for clearing LP Gas from the export pipework following completion of exports.

All of these storage areas meet legislative requirements.

### Risk Assessment

As part of the \$20 million plant upgrade, the Quantitative Risk Assessment (QRA) was updated and submitted to the DME and DEP for their approval. After review of the updated QRA, it was agreed that a more detailed QRA would be prepared, taking into account all changes to the plant since we commenced operations and including the proposed new facilities. The DME and DEP both accepted the more detailed QRA in February 2000.

### Employee Wellbeing

As part of our ongoing commitment to the health and safety of all employees, voluntary health and fitness assessments and follow-up sessions were completed during the year. These assessments are conducted every two years by independent medical consultants and give employees the opportunity to compare their health and fitness levels with previous assessments.

We introduced an Employee Assistance Programme in April 2001 which is designed to provide an independent professional and confidential counselling service to all employees and their immediate family members. We also established a Child Care Referral Service to provide employees with advice about child care services.



## Community/Social

### Complaints

Senior management handle any complaints from the community. There have been no complaints received from the community since the commencement of operations in 1988.

### Action Groups

We are a full member of the Kwinana Industries Council (KIC) and its sub-committee, the Kwinana Designated Industries Assistance Group (KDIAG).

KDIAG member companies have established and maintain a management system for response within the Kwinana industrial area to control emergencies that may arise within the boundaries of a member company site. Member companies have a mutual aid plan to integrate emergency management where appropriate. This plan allows them to obtain assistance from neighbours in the event of an emergency.

### Communication

#### Newsletters and Reports

Information is provided through the KIC as required. The Wesfarmers Limited Environment, Safety and Health Report is distributed to all employees and circulated to stakeholders.

#### Website

Our operations are referred to on the Wesfarmers Limited website at [www.wesfarmers.com.au](http://www.wesfarmers.com.au).

#### Liaison Groups

Community representatives were invited by senior management during the year to come on site to view our operations as part of the plant expansion project. Members of the community also visited the site to discuss progress of the noise reduction management plan.

## Priorities for the Future.

- No workplace injuries and maintain LTIFR at zero
- Ongoing identification and control of hazards
- No significant releases of hydrocarbons to the atmosphere
- Continued rollout of the noise reduction programme
- Progress environmental site assessment
- Implement site no smoking policy

**2000 Report Priorities**

**Outcomes**

An injury free workplace.	We had 14 LTIs resulting in an LTIFR of 20.8.
Disseminate EMS and train employees.	EMS roll out and environmental training completed.
Continue focus on noise management and associated community issues.	Noise levels contained and consultation with neighbours and government continued.
Further reduction in greenhouse emissions through energy efficiency initiatives.	Net greenhouse gas emissions 54 per cent of 1994 levels. Reduction through efficiency projects ongoing.
Continue rehabilitation of mined-out areas.	Preparation for seeding and rapid fill projects continued. WO-5B ready for seeding in Autumn 2002.

# Making Progress.

We recorded a record period free of lost time injuries during the year but overall there was a disappointing increase in our Lost Time Injury Frequency Rate (LTIFR). Despite this, the rate remains at a level well below that of previous years.

Rapid water filling of major former open cut mine sites continued with the aim of making these sites suitable as soon as possible for valuable purposes such as recreation and aquaculture.

We have a signed Cooperative Agreement in place as part of the Commonwealth Government's Greenhouse Challenge programme.





## Business Management

### Training

#### Environmental

We have designed a five-hour Environmental Awareness Training Programme for employees and commenced training during the first half of 2001. A total of 171 employees completed the programme during the year and our remaining workforce was covered in July/August 2001.

Other environmental training is conducted on induction of new employees, visitors and contractors.

#### Health

We have recognised emerging issues of an ageing workforce that will impact on work performance and have an effect on injury rates. A series of health monitoring and promotion programmes have been developed to manage this issue. Site and local medical practitioners liaise extensively to ensure best outcomes for injury management and rehabilitation.

Our health promotion in 2000/2001 focussed on strain injury prevention, ergonomic assessments of operators, cancer awareness training, nutrition, weight loss and a smoke-free environment.

We continue to run a monthly physiotherapy clinic as part of our injury management programme. This programme is aimed at musculo-skeletal injuries incurred at work and off the job. The aim of this clinic is to ensure these injuries are not aggravated by current activity. Assistance such as task modification and strengthening exercises are advised.

The HealthMap medical and fitness assessment programme continues to be offered to employees involving local medical practitioners and a physiotherapist providing free confidential "snapshots" of employee health status. Over half our

workforce has participated in this programme. Attending doctors identified some serious health problems and referred to other medical specialists.

First aid training is focussed on making basic workplace first aid training available to all our employees, ensuring there should always be personnel with first aid knowledge who can apply first response techniques in an emergency.

Ergonomic awareness training for operators was conducted regarding vehicle access and egress, and use and adjustment of seating consoles. The training was conducted across all production shifts with individual follow-up for some operators.

The Cancer Foundation conducted cancer awareness training across the company. This included information on most types of cancers and was supported by the HealthMap medical and physical assessment programme.

We conducted strain injury prevention for production personnel including various topics such as spine physiology, care of the musculo-skeletal system and correct manual handling techniques. This complemented previous training on vehicle access and egress, and use and adjustment of seating consoles and lifting techniques.

#### Safety

Safety and health risk assessments were conducted aimed at identifying core activity and work environment risks. The risk assessments have been conducted on a team approach involving a cross-section of each work group from the respective areas under review.

At year's end, all departments, other than the production department, had been assessed for physical and functional aspects of safety.

Our training programme for frontline management includes a specific core element on developing and maintaining a safe workplace and environment.

Training was conducted in the maintenance department to instruct employees in the use, care and maintenance of new, standard-issue eye-safety equipment.

A small delegation of our managers, supervisors and safety and health committee representatives attended the MineSafe 2000 International Conference.

#### Emergency

Emergency alarm systems have been upgraded for the administration building and tested through two trial emergency evacuations of the building.

Emergency alarms, public address systems and an automated mine rescue call system have been installed in the Maintenance/Supply building and tested through four trial evacuations, one involving a simulated emergency.

The simulated emergency was conducted to test the crisis management plan. It involved local ambulance, police, doctors and fire services.

An initial course for new mine rescue team members was conducted to ensure primary training in fire fighting, rescue from height, depth and vehicles, confined space entry, hazardous chemical response, first aid and team leader training. The training was carried out in cooperation with Western Power and the SIMCOA silicon smelter to extend emergency response capability between organisations.

Mine rescue training was conducted on 19 occasions involving rescue from height and depth, fire fighting, hazardous chemical response, first aid, vehicle extrication and confined space rescue. Two new members are currently undergoing medical and fitness assessments in accordance with the Department of Minerals and Energy (DME) "Guidelines for Fitness of Mine Rescue Teams".

Five basic fire training sessions were conducted for maintenance crews in the use of fire fighting equipment practising on hot fires.

Our team at the WA Chamber of Minerals and Energy Emergency Skills Competition won the functional fitness event for the second successive year and achieved fourth place overall.

## Compliance

### Environmental

We fully complied with licence conditions and management plans covering blasting, water, dust, forest management, clearing and rehabilitation. Unfortunately, due to the nature of noise and the numerous other sources within the coal-mining basin, noise compliance has been difficult to quantify. The current licence levels are under review by the Department of Environmental Protection (DEP).

### National Pollutant Inventory (NPI)

We submitted our second NPI report, for 1999/2000, in September 2000. Reported levels of pollutants increased due to a rise in production and improved estimation techniques. Most emissions were derived from the use of diesel and dust generated from wind, vehicle and overburden movement, coal processing and blasting. Detailed information is available at: [www.environment.gov.au/epg/npi](http://www.environment.gov.au/epg/npi).

### Health

In accordance with regulatory requirements, we continued our Mine Workers Health Surveillance programme, renewed certification of hearing testing equipment and purchased a new lung function assessment machine.

### Safety

We have reviewed our work procedures to ensure compliance with industry guidelines covering fatigue management, drilling and working in the vicinity of lightning. We maintain communication and consultation through 13 elected safety and health representatives and the Site Safety and Health Committee.



**'Cat' Szyszka, Pit Controller, in the pit control room at Premier Mine.**

Four DME audits were conducted and a high level of compliance was identified in each case.

Of particular note, an audit of management systems found a marked improvement in compliance since the 1997 audit and that management is seen to be driving safety effort at the site.

We conducted an education programme and installed hands-free mobile phone sets to comply with legislation taking effect from 1 July 2001.

Fixed and portable fire systems were checked, serviced and upgraded as required.

### Licensing and Approvals

An explosives and dangerous goods compliance audit was conducted in May 2001 to review our licences and compliance with the Explosives and Dangerous Goods Regulations. The review brought us into compliance and has resulted in the issue of a single licence for the mine.

## Management Systems

### Environmental Management System (EMS)

We have an ISO 14000 standard EMS which is designed to manage any potential environmental risks and includes procedures for key work activities and monitoring requirements.

The EMS is designed to cover our government-approved Environmental Management Programme and extensive legislative and licence conditions.

Implementation of the EMS has progressed well with documentation updated and procedures introduced as required. The system was integrated upon completion of the awareness training programme in August 2001.



**Mark McCormick and Jason Hughes, Mechanical Fitting Apprentices, and Jason Mumme, Mechanical Fitter, changing a haul truck high voltage alternator.**

**A Silver Perch from our aquaculture research ponds.**



### **Safety Management System**

We continue to use the RiskMap Safety Management System. The 67 elements have been made available on the site Intranet and an auditing instrument has been developed and trialed through the front line management training. The audit tool is a systems audit against the developed standards using a weighting and rating system to determine areas of priority focus. The Minerals Council of Australia Mining Safety Excellence Awards acknowledged our "comprehensive safety systems and standards across site in pursuit of excellence in safety performance".

### **Policy**

The Safety and Health Policy remains current and is due for revision in October 2001. The policy acknowledges our responsibility towards a safe and healthy workplace, consultation, training, goal setting and review of performance.

We consider environmental management as one of the highest corporate priorities and promote the development of policies, programmes and procedures for conducting operations in an environmentally sound manner. We are committed to integrate environmental management with all business and operating management systems. Our environmental policy is designed to set our agenda for environmental management through a broad statement of commitments and principles. It is reviewed on a regular basis to ensure currency.

The overriding guiding principle of the policy is that we take responsibility for minimising the impact of our operations on the environment. Also, we believe we are accountable to employees, shareholders, government and the public. Consequently, we are committed to reporting on environmental activities with overall performance monitored and reviewed through auditing and internal reviews. Performance information will be made available to government and the public.

### **Environmental Policy**

Wesfarmers Premier Coal Limited is a mining company currently operating in the Collie Coal Basin of Western Australia. The Company seeks "best practice" in environmental management and is a signatory to the Australian Minerals Industry Code for Environmental Management. Wesfarmers Premier Coal accepts and respects community and regulatory concern for the environment and shall make its Environmental Policy available to all interested parties, including the general public. To support its commitment, the Company:

1. Acknowledges responsibility to minimise and manage the environmental changes caused by its operations as a critical business function;
2. Shall, with the encouragement, participation and support of all employees and contractors, and through our Environmental Management System, maintain sound environmental practices, responding quickly and effectively to any environmental incidents arising from WPCL operations;
3. Shall include environmental management and rehabilitation considerations in all stages and aspects of our mining activities;
4. Shall strive to prevent pollution, minimise waste and conserve resources as we manage our environment. Major considerations include noise, water, dieback, clearing and burning, blasting, dust, energy, waste materials and land rehabilitation;
5. Shall set and strive to maintain standards to comply with all applicable legal requirements, government policies and agreements for the protection of the environment;
6. Shall promote environmental awareness and clear definition of individual responsibility, and further develop environmental expertise through relevant training of all employees;
7. Shall review, develop and strive to improve our practices through research as well as through consultation with employees, the community, government agencies and industry groups; and
8. Will measure and audit our performance, reporting results to employees, government and the public. We shall also discuss openly and constructively issues of community concern.

Tom Kuzman  
Managing Director  
June 2001



## Environmental

### Air (Atmospheric Emissions)

#### Dust

Dust can be a concern to residents – particularly its potential to affect drinking water and domestic activities.

Dust at the Premier Mine is mainly generated on roads, dumps and cleared areas and is only a potential problem during the dryer months of the year. Monitoring is necessary at these times and annualised results are thus exaggerated (see Figure 1). The recent exceptionally dry seasons have led to raised dust levels and occasional community concerns with four complaints for the year, compared with none in the previous period. Rainfall from September 2000 to May 2001 was more than 100mm less than for the previous same period. Also, with the development of new pits in the basin, larger than normal areas are open prior to rehabilitation. This has also contributed to increased dust levels. However, dust levels were well within licence conditions.

Management strategies include minimised clearing and rapid rehabilitation when possible, tar sealing major road arteries and application of water to suppress dust on roads and operational areas.

#### Odour

The only odour noted during the period was reported by employees and was caused by occasional occurrences of coal spontaneous combustion. A study is planned to determine reduction strategies.



#### Greenhouse Emissions

Our greenhouse emissions are largely due to use of diesel fuel and electricity with a smaller contribution from spontaneous combustion of coal. Collie coal has no associated methane emissions. The sources of emissions can be seen in Figure 2.

During the year our historical data was adjusted to the latest emission factors for Western Australian power stations and for emissions from spontaneous combustion. This has consequently altered the reference framework for this report. Due to this, previously listed figures may be different in this report.

Net carbon dioxide (CO<sub>2</sub>) emissions per bank cubic metre equivalent (bcmeq) were down 54 per cent from 1994 levels. In the last year emissions reduced from 2.46kg/bcmeq to 2.45kg/bcmeq. Net emissions were 78,953 tonnes of CO<sub>2</sub> down 0.4 per cent on last year despite the new emission adjustments referred to above.

We are a participant in the Commonwealth Greenhouse Challenge Programme and have a signed Cooperative Agreement.

#### Noise

Our equipment noise levels have not increased, but as our operations moved closer to our neighbours, residents at Buckingham have, on three occasions in the last 12 months, reported being disturbed by mining noises. Consultation on this matter continues with the DEP and the community.

Blasting improvement strategies have been offset by moving closer to residents yet we have been able to maintain our blasting level average at 102dB(L), with no blasts exceeding the legal limit of 125dB(L).

The highest recorded blast was 124dB(L) while 95.4 per cent of blasts were below

115dB(L). The number not triggering the monitor was up by only 0.7 per cent despite a 37 per cent increase in the total number of blasts (see Figures 3 and 4).

There were ten complaints for blasting on our site of which seven were below 115dB(L). Normally a level of 117dB(L) is considered intrusive by our neighbours.

Independent building condition surveys are on offer to all nearby neighbours but to date no survey has attributed structural defects to our blasting.

Figure 1: Dust in Premier Region

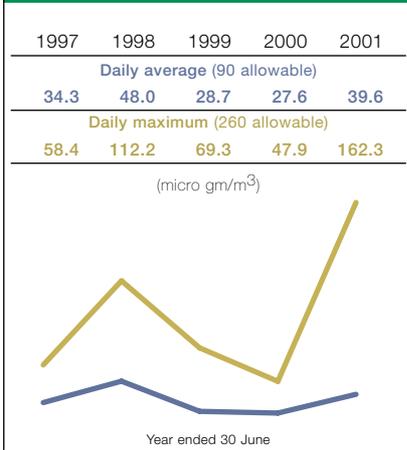


Figure 2: CO<sub>2</sub> Emissions by Source

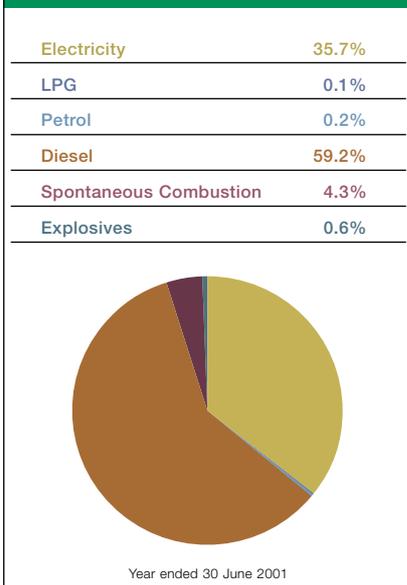


Figure 3: Premier Mine Blasting 2000/2001

Criteria	Buckingham	Griggs
<125dBL	100%	100%
<120dBL	99.6%	100%
<115dBL	95.4%	99.6%
Average dBL when triggered	102	106
Total blasts	477	477
Not triggered	299	443

Year ended 30 June

Figure 4: Premier Mine Blasting Buckingham Monitor

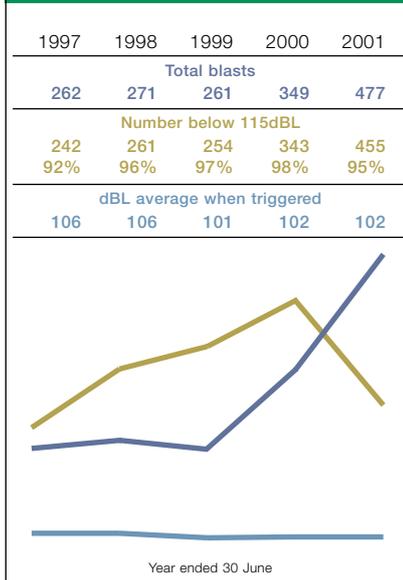


Figure 5: Water Abstraction

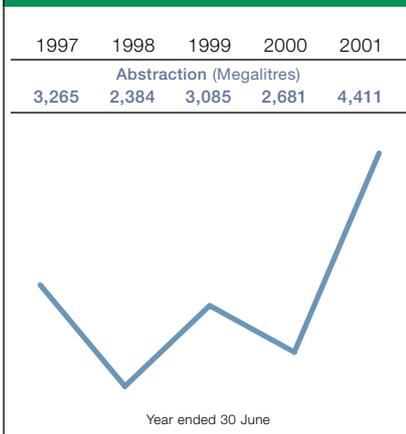


Figure 6: Water Discharge



## Water

### Consumption

Part of the dewatering stream is utilised for dust suppression (14 per cent) and process water (three per cent). Process water is used for vehicle washdown and domestic and workshop requirements. Total consumption this year was 723 megalitres (ML).

### Groundwater

Dewatering is required for safe and efficient mining in the Collie Basin. All groundwater abstraction is licensed and monitored. During the year nearly 11 ML/day were pumped with a total abstraction of 4,411 ML (see Figure 5).

Excess water was dispatched to Western Power for power station usage.

We are committed to making good any loss of water suffered by neighbours of the Premier Mine. To date, dewatering has not affected groundwater levels near private land or dwellings in the area.

### Discharges to Surface and Groundwater

We are licensed to discharge water off-site to the environment but have not done so this year. (see Figure 6). This is likely to continue for at least three years. Overflow from Sump A was 842 ML and this was captured in the WO-5H void as part of the rapid fill programme.

Despite the zero discharge, we continued to monitor adjacent river systems. We have a computer data base and management system for water quality, abstraction, discharge and regional waterway monitoring.

### Reuse

Apart from the water used by the mining operation, 3,034 ML was sent to local power stations – the major users in the area – thus helping to reduce the overall abstraction in the Collie Basin.

In the maintenance and fuel bay area we have a Dissolved Air Flotation (DAF) plant to treat run-off and vehicle washdown waters. Hydrocarbons are recovered from the water (and recycled) and the treated water is then available for reuse for vehicle washdown.

The main infrastructure area is serviced for sewage by a treatment plant with treated water available for garden reticulation during dryer periods.

## Waste

### Solid Waste

Around 54 per cent of the solid general waste stream is disposed of as land fill and is estimated to occupy 929 cubic metres.

### Liquid Waste

Hydrocarbons are our main liquid wastes and these are captured by evacuation systems or the DAF plant. This waste is transported to a local recycling plant where it is used mainly in the production of low-grade oils or fuel oil.

### Recycling

Our main waste streams – including used oils, metal scraps, cardboard, paper, tyres and batteries - are recycled. Of the solid waste stream, over 46 per cent is recycled. During the year, we achieved a recycling efficiency of more than 84 per cent. Recycling is promoted through the provision of recycling bins in car parks for employees' domestic requirements. As well, we sponsor and mentor local schools in waste management and help drive the Collie Tidy Towns Programme.

## Land

### Flora and Fauna

Protection of surrounding forests is a priority and clearing operations are minimised as much as possible. Prior to clearing, operational areas are mapped to determine dieback boundaries. Our procedures for clearing, topsoil removal/replacement and land rehabilitation minimise the risk of spreading jarrah dieback. Infected soils are kept separate for application only in areas with minimal risk of disease spread.

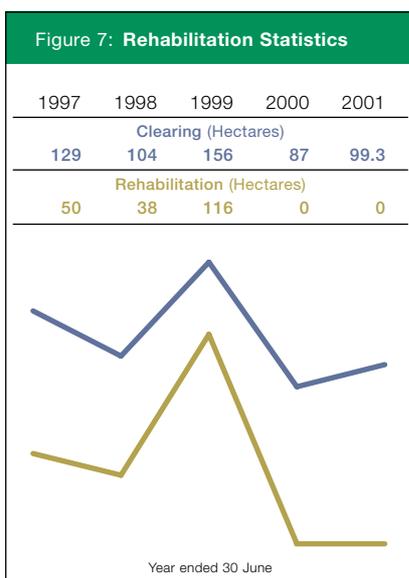
Disturbed land is returned to stable, compatible bushland by using local native seeds and trees. Habitat logs are placed in rehabilitation areas to promote recolonisation. Regular inspection and permanent monitoring plots identify improvement opportunities and ensure successful uptake.

A detailed fauna survey of our rehabilitation sites was conducted during the year designed to assess small to medium-sized mammals, frogs, reptiles and birds. The study showed good recolonisation progress with rehabilitation providing habitat for a range of representative vertebrate species. Three species of native mammals of conservation significance were recorded in the rehabilitation (Chuditch, Southern Brown Bandicoot and the Western Brush Wallaby). Four species of birds of conservation significance were also observed (Square-tailed Kite, Forest Red-tailed Black-Cockatoo, Long-billed Black-Cockatoo and the Rainbow Bee-eater).

A further survey will be conducted in about three years.



An Australian Blue Bell seedling being planted in the Western 5 rehabilitation area.



Rehabilitation is still focussed on the large Western 5 mining area in the Cardiff Sub Basin. Rapid fill of the WO-5B void continued, during peak winter flow of the Collie South Branch, with 5,878 ML diverted, raising the void level by a further 11.4m. Downstream domestic use and the environment have not been adversely affected by the diversion. The programme is designed to increase safety and enhance the final rehabilitation outcome. Monitoring to date shows that the diversion is assisting pH control. The programme will take a further two to three years depending on rainfall but will cut the natural fill time from 100 years. This will expedite the availability of these areas with high potential for other valuable purposes such as recreation and aquaculture.

Rapid fill of the WO-5H void also continued with the level raised a further 4.8 metres.

#### Contamination

Assessment was done on the abandoned Western 5 Workshop and surrounding areas for ground contamination from hydrocarbons. No significant site contamination has been identified in these areas.

#### Rehabilitation

Major open cut mining commenced in 1970 and since then 2,553 hectares of bushland have been disturbed by mining and associated activities. Revegetation commenced in 1975 and 832 hectares have now been rehabilitated (see Figure 7).

Successful rehabilitation work requires the careful planning and interaction of numerous processes. A key to our success is correct waste rock management with materials likely to generate acidic conditions buried deep in the dump or backfill profile. Final dump surfaces are covered with a one-to-two metre blanket of inert material and spread with topsoil ready for revegetation.

#### Resource Use

##### Fuel

Our energy consumption is dominated by the diesel-powered fleet and accounts for around 85 per cent of all fuel. Other fuels used include LP Gas and some petrol.

The use of electric shovels, coal processing/handling, dewatering and maintenance workshops dominate electricity demand. Explosives are a major consumable requirement with 2,829.5 tonnes used during the year.

##### Energy

Total energy consumption for 2000/2001 was 763,076 gigajoules, up 1.5 per cent from 751,748 gigajoules used during 1999/2000. Production increased 0.2 per cent with 32.3 million bank cubic metre equivalent (Mbcmeq) mined in 2000/2001 compared with 32.2Mbcmeq in 1999/2000.



## Safety and Health

#### Lost Time

During the year there were 14 Lost Time Injuries. The Lost Time Injury Frequency Rate was 20.8 compared with 17.1 last year. This is disappointing, but during the year we had recorded a significant record period without lost time injuries.

#### Workers Compensation

There were 59 workers compensation claims during the year compared with 70 in the previous year.

A claims review process is regularly conducted to assess injury progress and rehabilitation plans. On-site injury management clinics are conducted to assess ongoing musculo-skeletal injuries. An injury management manual is currently being developed to further assist in rehabilitation and return to work of injured employees.

#### Hazard and Risk

##### Programmes

Hazards are captured via the Hazard and Incident Reporting system as well as through hazard and risk assessments. The Standards Australia AS/NZ 4360 qualitative risk assessment matrix tool is applied to ensure these are ranked according to potential and severity.

AccStat injury incident recording system ceased being used in favour of an integrated Human Resources Information System (HRIS). Within HRIS hazard groupings have been defined to further assist in identifying trends that could lead to serious incidents. Hazard and near-miss reports are also tabled and actions reviewed at weekly Hazard/Incident Review meetings to register and monitor progress of each report. These meetings are minuted and data is maintained with nominated actions and close-outs indicated.

#### Materials Handling and Storage

A review of our hazardous substances and dangerous goods storage was conducted to ensure compliance with legislative requirements and matching with our ChemAlert Material Safety database.

#### Risk Assessment

An independent assessment of our shift patterns was conducted as a follow-up to the shiftwork, lifestyles and fatigue-minimisation training conducted across the workforce in June 2000. The report outlined our status on shiftwork and fatigue compared with other mines. Based on a computer fatigue model assessment, the report concluded that our rosters compared favourably.

A special risk assessment and emergency plan was prepared for the 50th anniversary celebration ceremony when more than 2,000 people attended an open day at the mine. This plan evaluated the risks and controls for public interaction with mining areas.

Audits of standards in both the Production and Maintenance areas were conducted to profile compliance against the RiskMap safety management system.

Planned task observations were implemented in the Operations Department. The planned task observations are in addition to the regular safety audits and focus on safety behaviour, work practices and adherence to written safety procedures, rather than physical aspects of the workplace environment.

The hazardous materials survey of 2000 identified no significant health risks from asbestos or other hazardous materials.

#### Employee Wellbeing

ACCESS Counselling conducts our Employee Assistance Programme which was used by 18 employees or their immediate family who attended 30 sessions. This is a confidential service aimed at resolving or assisting with personal issues that may have an impact on work.



## Community/Social

#### Complaints

Complaints have been largely due to blasts (10) followed by dust (4) and general mine noises (3).

Regular meetings are held with local residents at which we provide general information as well as detailed environmental performance data. These meetings are a valuable opportunity for the community to provide additional feedback and suggestions. We commend the Buckingham community for their contribution in these meetings and their ongoing contact throughout the year informing us of their concerns.

#### Liaison with Authorities

We have appointed a senior manager to liaise regularly with all authorities to ensure government is kept informed of progress and any arising issues.

#### Action Groups

We are involved in the Local Emergency Management Action Committee (LEMAC) which is part of the Police and State Emergency Services plans. LEMAC has reviewed the emergency services plan for the Collie region. Emergency service representatives from Collie attended an open day to discuss response capability and procedures at major facilities in the area and possible mutual aid arrangements.

#### Communication

##### Newsletters and Reports

We report annually to a consortium of government departments through the Collie Coal Mines Environmental Committee.

Information on issues and achievements are distributed by our quarterly publication "Premier Post" which is sent to all employees and contractors and is widely distributed throughout the community.

We also distribute a summary of operations via e-mail and mail-out every two weeks called "Fortnightly Focus". This publication aims to keep all employees and contractors up to date with key performance areas and progress with targets.



Employees on the pit floor of the Premier Mine.

During the year, we hosted an Open Day as part of celebrating 50 years since the company commenced mining in Collie. This provided a valuable community interaction and was enthusiastically received by local and regional visitors.

A video covering our history, including our environmental performance, was made in conjunction with this event. It was shown to all employees and on the regional television network.

An Intranet site has been developed to improve communication of information on a wide variety of issues including environment and safety standards and procedures.

## Community Support

### Research

We sponsored the Australian Coal Association Research Programme (ACARP) at Collie which involved researching acidity of abandoned mine water bodies. We are currently sponsoring a follow-on, \$350,000 project into further water treatment processes and value-added options such as aquaculture. A research aquafarm has been established on the banks of the WO-5H void, providing a valuable research facility and teaching centre for the local TAFE and Curtin University.

We have been instrumental in bringing to Curtin University some of the work being done by the Cooperative Research Centre for Black Coal. We have committed \$100,000 per year for seven years. The local centre will be involved in improving environmental and greenhouse performance through efficiency and waste management improvements.

We are party to developing a business plan to encourage the establishment of a Centre of Excellence in Mine Void Rehabilitation in Collie.

### Scholarships

We provide tertiary scholarships (J A Ellis Scholarships) each year and also student awards for the local high school and TAFE. The company also sponsors the Joe Lord Memorial Scholarship being applied currently to research into mine-site rehabilitation.

We provided work experience to high school students from the southwest region and paid vacation employment for 19 tertiary students.

## Awards

In 2000 we received the National Mining Industry Excellence Award for Safety and Health for our safety systems and standards from the Minerals Council of Australia.

Having received five Industrial Foundation for Accident Prevention SafeWay Awards last year, we have again entered this year.

One of our fitters received a certificate of recognition from the St John Ambulance Association for using his first aid skills to resuscitate a fellow workmate who, through a personal medical condition, collapsed and stopped breathing.

# Priorities for the Future.

- An injury free work place
- Routine environmental reviews and audits
- Full environmental compliance
- Maintain focus on noise management and associated community issues
- Further reduction in greenhouse gas emissions through energy efficiency initiatives and reduction in spontaneous combustion of coal
- Complete rehabilitation of Western 5 mined-out areas

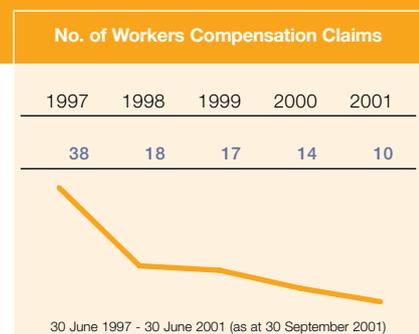
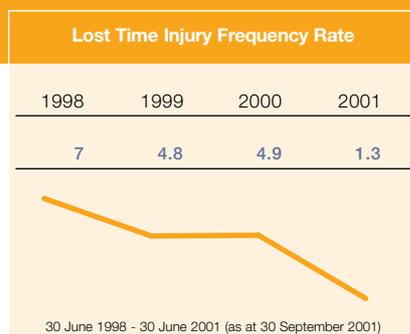
# Making Progress.

This is our first contribution to the Environment, Safety and Health report following the acquisition of our operations by Wesfarmers in June 2000.

A high level of safety and care of the environment are priority issues at Curragh.

During the year we achieved a significant reduction in the main measure of our safety performance, the Lost Time Injury Frequency Rate (LTIFR). We acquired a safety management database system which will record safety-related matters, allow us to quickly analyse them and improve our ability to intervene proactively.

During the year we renewed our Environmental Management Operating Strategy (EMOS) with the Queensland Government. This includes a commitment to rehabilitate 60 hectares of mined area a year. During the past 10 years we have averaged 64.5 hectares.





## Business Management



**Jason O'Donoghue, Mechanical Tradesperson, wearing grinder safety gear.**

### Training

#### Environmental

To ensure all our employees are fully conversant with environmental responsibilities, employee induction programmes include an environmental component. Follow up training occurs six months later. The refresher course is conducted using a special purpose CD-ROM, which covers our policy, legislation, water management, rehabilitation, topsoil management, waste management, reject management, conservation, environmental monitoring and emergency procedures. The CD-ROM is part of a broader site-based training package. Contractor or temporary employees undertake an induction process which includes an environmental segment.

#### Health

Education programmes covering lifestyle, illicit drugs, alcohol and smoking were conducted by a psychologist and will be repeated annually. This training was linked to our drug and alcohol testing and no-smoking policy to help our employees modify their lifestyle to ensure compliance with these policies.

A modern medical centre is situated on site and provides a range of comprehensive services relating to workplace health and non-work related health issues.

#### Safety

Our employees and permanent contractors are required to attend monthly toolbox meetings to discuss tasks and related safety aspects. These meetings also include a scheduled topic to promote our health and safety focus on and off the job. They are documented and concerns raised at the meetings are followed up by the supervisor or referred on to the appropriate manager.

We are developing a Training Management System (TMS) which will encompass specific training packages related to black coal mining. Training is competency-based and carried out by qualified trainers/assessors.

### Emergency

We have a dedicated fire/rescue vehicle and a trained fire/rescue team. Fire/rescue team members are trained monthly to respond to on and off-site emergencies, including working under the direction of statutory emergency authorities.

A seven-member fire/rescue team competes annually in the Queensland Open Cut Mines Rescue Competition. At the October 2000 competition, our team was placed fourth overall and won a number of sections including Best Fire Team, Best Fire Skills and Best Road Accident Rescue Team.

We have a dedicated ambulance vehicle and an on-site Queensland Ambulance Service paramedic to provide for the health and welfare of everyone at our mine.

Every fire warden is trained annually in evacuation procedures and building evacuation exercises will be carried out.

### Compliance

#### Environmental

We renewed our Environmental Management Operating Strategy (EMOS) with the Queensland Government in August 2000. The EMOS contains our commitment to protect or enhance environmental elements impacted by mining and these commitments are implemented through a Plan of Operations. We achieved a level of performance under the Environmental Protection Act 1994 reflecting full compliance for two years with our plan of operations, no unauthorised material or serious environmental harm for two years, demonstrated potential to meet long term commitments and evidence of continual improvement in environmental management. Our Plan of Operations was independently audited and confirmed compliance with the conditions of the environmental authority. Under the EMOS, we have a commitment to rehabilitate 60 hectares a year of disturbed mining area.



**Taking a water sample in Blackwater Creek.**

### National Pollutant Inventory (NPI)

We submitted our NPI report on air emissions for the year 2000/2001. Dust from our four large draglines is the main source of emissions.

### Health

All new employees and permanent contractors undertake a pre-employment Coal Board Medical (CBM). Permanent contractors who do not have a current CBM must undertake a pre-employment CBM. We provide a CBM-level test every three years rather than the five-yearly legal requirement. Annual Health Reviews became compulsory within the reporting period rather than being conducted voluntarily.

All non-permanent contractors are required to undertake a health assessment conducted by the on-site Queensland Ambulance Service paramedic.

### Safety

Our Safety Management System (SMS) has now been implemented to meet the statutory requirements of the Coal Mining Safety and Health Act and regulations. The SMS was developed in consultation with our workforce. We have named our Safety Management System "Project Zero" to reflect the company objective of zero incidents and accidents.

As part of the legislative requirements we are required to develop mandatory Standard Operating Procedures (SOP). Development of these procedures is well underway and is being achieved using a joint consultation process with the workforce. This promotes ownership and at the same time the expertise of the workforce is utilised to ensure that all SOPs are practical and efficient.

### Management Systems

#### Environmental Management System (EMS)

We submitted an Integrated EMS to the Department of Mines and Energy in November 2000 and are awaiting its approval.

#### Safety Management System (SMS)

The SMS prescribes the health and safety responsibilities of everyone on site and provides a framework of management and statutory responsibilities. All procedures and policies are readily identifiable. The key advantage of the SMS is its status as a living document - constantly subject to change, identified through the employee consultative and risk assessment process. The SMS is a deliberate and integral part of our management of operations.

We have acquired a Safety Management Database (SiteSafe) and are in the process of completing its installation.

Prior to installation, work has to be carried out to the database to ensure the programme is tailored to our requirements. SiteSafe will record safety related matters including incidents, accidents, hazards and near misses. This system enables analysis and proactive intervention and provides email notification of action items as a result of investigations and an electronic tracking system to monitor compliance. The system will also track and will electronically notify supervisors when employees are due for health screening checks. The system is also capable of recording training, authorisations and automatically notifies supervisors when retraining is scheduled.

Our SMS has 31 elements, each with performance criteria. The elements of the SMS and operating procedures are subject to annual internal audit and five-yearly external audits.

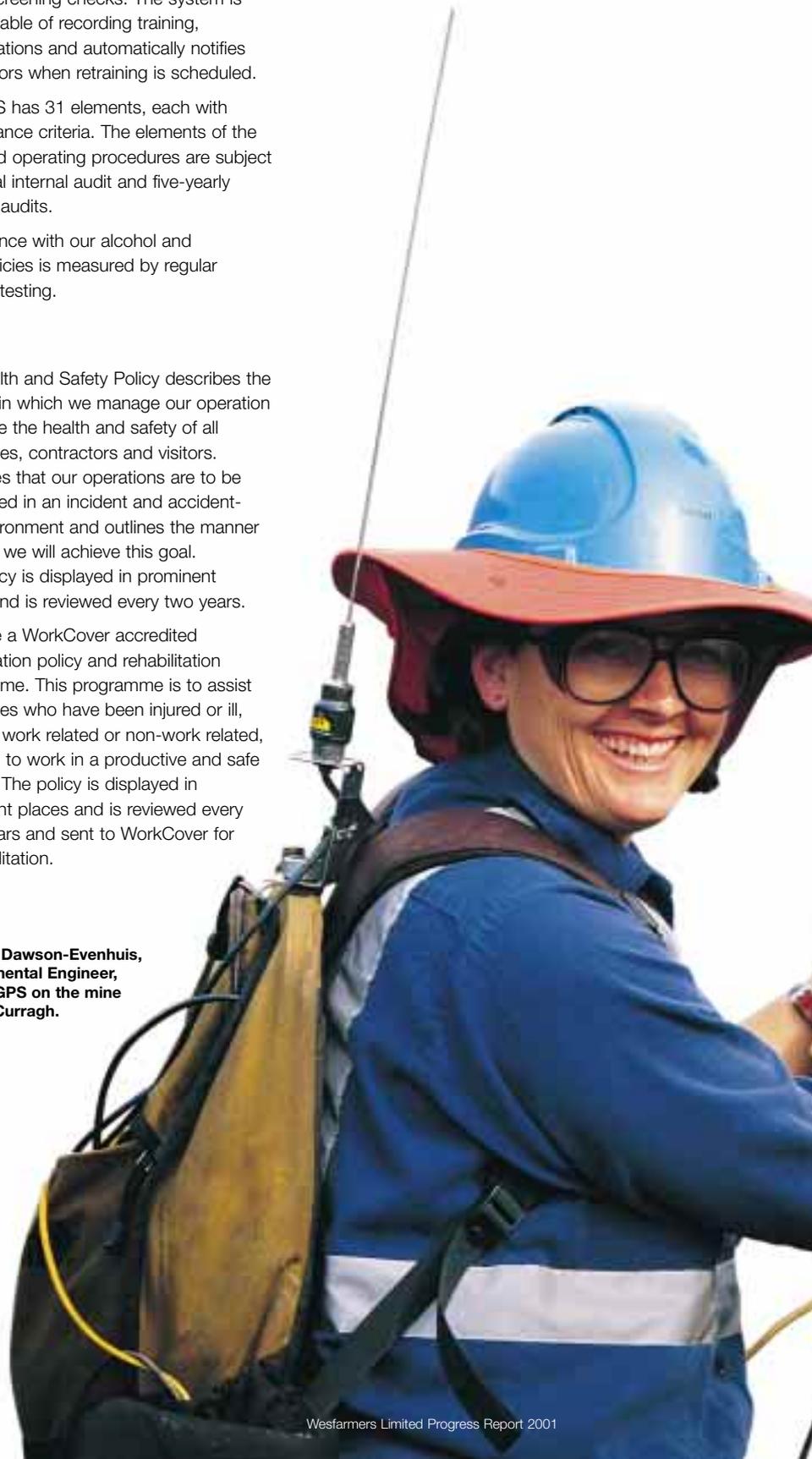
Compliance with our alcohol and drug policies is measured by regular random testing.

### Policy

The Health and Safety Policy describes the manner in which we manage our operation to ensure the health and safety of all employees, contractors and visitors. It requires that our operations are to be conducted in an incident and accident-free environment and outlines the manner in which we will achieve this goal. This policy is displayed in prominent places and is reviewed every two years.

We have a WorkCover accredited rehabilitation policy and rehabilitation programme. This programme is to assist employees who have been injured or ill, whether work related or non-work related, to return to work in a productive and safe manner. The policy is displayed in prominent places and is reviewed every three years and sent to WorkCover for reaccreditation.

**Amanda Dawson-Evenhuis,  
Environmental Engineer,  
using a GPS on the mine  
floor at Curragh.**





## Environmental Policy

Curragh Queensland Mining Pty Ltd will manage its operation so that the environmental impact on the Curragh mining leases and surrounding areas is minimised. In order to achieve this goal we will:

- Comply with relevant Environmental Acts, Regulations and Standards;
- Ensure that best practical technology is used to develop systems within our Environmental Management Overview Strategy (EMOS) and Plan of Operations;
- Provide the necessary resources to allow us to meet our EMOS and Plan of Operations commitments;
- Educate our workforce in all relevant environmental matters to achieve our commitments;
- Select contractors who have demonstrated capability in working to our standards;
- Identify areas with potential for non-compliance and minimise the risk through sound management practices;
- Maintain an 'open book' approach in our documentation of environmental matters and self-report any instances of non-compliance to the relevant authority;
- Regularly communicate with our neighbours to inform them about the mine's operation; and
- Continually improve our environmental management performance in order to reach a Category 1 compliance rating.

I require all employees, contractors and visitors to comply with the relevant procedures and practices set out under this policy.

Stewart Butel - General Manager

July 2000



## Environmental

### Air (Atmospheric Emissions)

#### Dust

We have adopted the ambient air guidelines from the Queensland Government's Environmental Protection Policy (Air) for assessing both health and nuisance effects. If these guidelines are exceeded, we will implement stricter control strategies to maintain emissions below these levels. Environmental monitoring is carried out by deposition gauges located on the minesite, in the town of Blackwater and on neighbouring properties. High volume sampling is undertaken on a set schedule with all results recorded well below threshold limits.

#### Greenhouse Emissions

We currently have no accurate measure of greenhouse gas emissions.

We plant 30 hectares of native tree seed each year when seasonal conditions are favourable.

#### Noise

We continue monitoring noise levels associated with mining, particularly blasting. Noise is monitored when a blast occurs in the southern pit, which is located two kilometres from the town sewage plant and five kilometres from Blackwater.

Blast monitoring (peak sound pressure and ground vibration) is carried out in accordance with Queensland's Environmental Protection Policy and relevant Australian Standards. Blast levels have never exceeded allowable thresholds.

#### Water

##### Consumption

Our water management system defines, monitors and manages the impact of the mine on the local natural surface and groundwater system. Downstream of the mine, water in Blackwater Creek is used for stock watering and, after joining the Mackenzie River, is used for irrigation. We purchased water from the Bedford Weir and supplemented this allocation with recycled site water.

We have halved the quantity of water purchased from 3,536 ML in 1992/1993 to 1,637 ML in 2000/2001, through more efficient use of water on site (see Figure 1).

**Discharges to Surface and Groundwater**

There were no off-site discharges due to recycling through our water management system.

**Reuse**

The water management system ensures that:

- accumulated pit water is pumped into retention dams so that mining operations are not jeopardised by flooding. The mine has 25 retention dams with a total capacity of 3,100 ML;
- retention dam water is managed so that there are no uncontrolled direct releases of mine water off site; and
- water collected around the mine site is recycled to minimise dependence on outside supplies. Small quantities of water were originally recycled from the decant dam at the bottom of the tailings dam and pumped to the coal preparation plant. In 1994, the system was expanded so that recycled water could be pumped to any location on the mining lease, including haul road water fill points for water trucks and the tailings dam. In 1996, metering was installed to more accurately track water usage.

**Waste**

**Solid waste**

In September 1998, we introduced a waste minimisation and management programme to reduce, reuse and recycle waste. Oil filters, batteries, scrap metal, oil and drums are now recycled or reused on site. During the year, 53 per cent of general waste was recycled (see Figure 2).

General waste (crib room refuse, timber, rubber hoses, pressure pack cans and other waste not able to be used or recycled) was disposed of at our registered landfill site at Ramp 5 North. The site is located near the industrial area to minimise transport time, and behind spoil piles, which will be used to cover the landfill during rehabilitation. Rainfall run-off is diverted around the landfill to minimise leaching.

**Liquid waste**

We have taken extra steps to tackle waste oil through the introduction of a comprehensive hydrocarbon management system. Waste hydrocarbons are captured, filtered and reused. Coolant, diesel and hydraulic oil are reused during servicing, and condition monitoring has extended oil change service intervals (see Figures 3 and 4). Clean waste lubricant is reworked with other waste hydrocarbons to produce a lubricant suitable for reuse on dragline dump ropes (see Figure 5). Within this reporting period no waste oil was taken off site (see Figure 6), purchase of dragline dump rope lubricant ceased and we have significantly increased the amount of oil reused.

The first stage of the hydrocarbon management system was implemented in October 1998 when a series of oil/water separators and collection and storage tanks were installed. A fluid maintenance system was introduced to the main workshop, draglines and drills in June 1999 to reduce consumption of oil through condition monitoring. The system was expanded to the preparation plant in September 1999.



The coal washing plant.

Figure 1: Water Usage

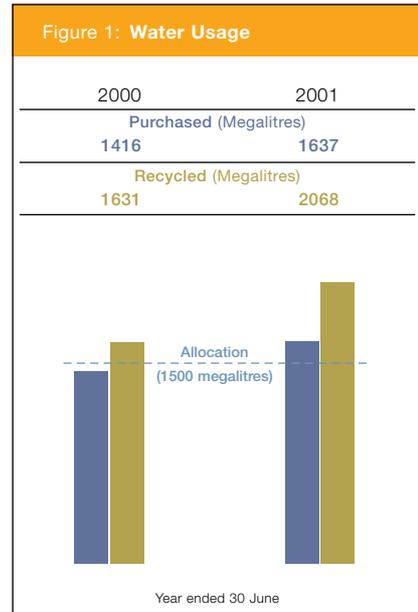


Figure 2: General Waste Volumes

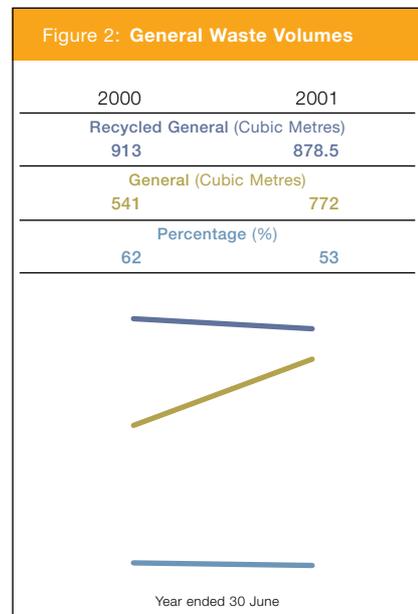
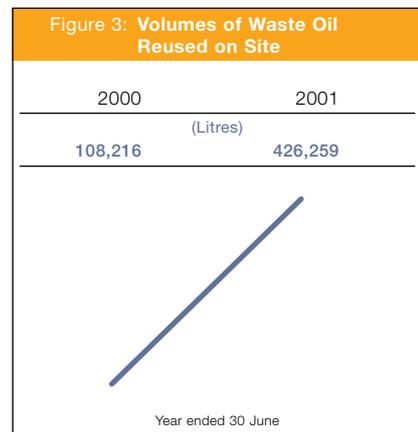
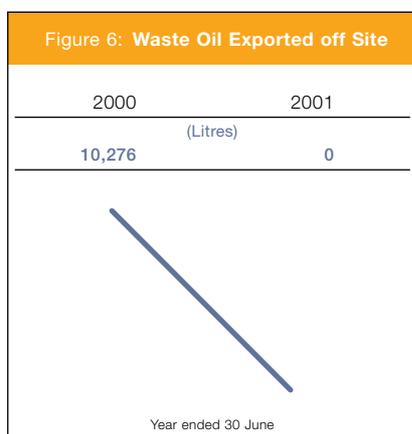
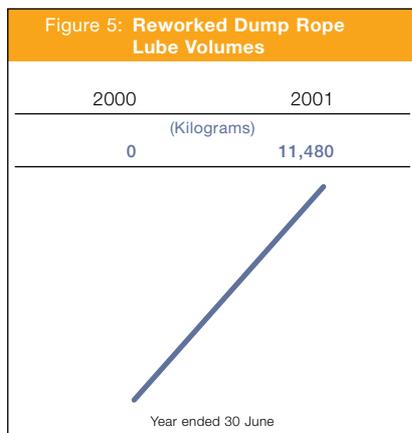
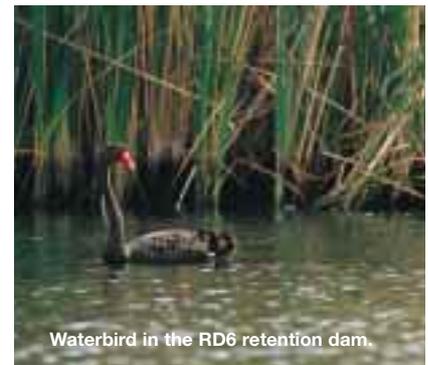
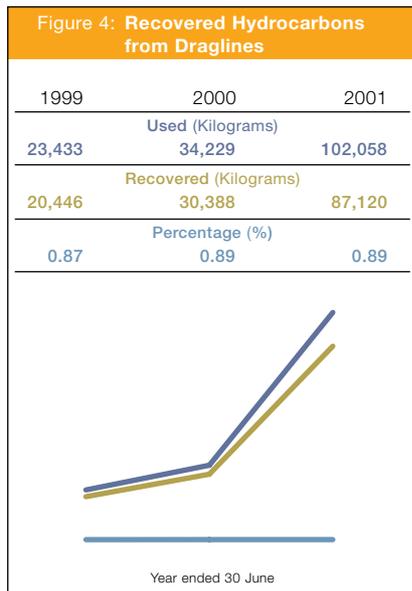


Figure 3: Volumes of Waste Oil Reused on Site





## Land

### Flora and Fauna

An independent ecology group carried out an assessment of terrestrial flora and fauna success criteria in March 2001. The object of the research was to identify success factors evident in reference sites around the Curragh mine and contrast these with similar factors in spoil rehabilitation. In conjunction with the field tests aquatic surveys were also undertaken of water ponds (two in rehabilitation, one in a retention dam, one in a natural creek site and one in a creek diversion site) to establish success indicators for aquatic species. The survey findings demonstrate that fauna colonisation has occurred within areas of post-mining rehabilitation and that native remnant habitats support a diverse fauna assemblage, including rare and threatened species. The survey results also show that both ephemeral and permanent water bodies, created by mining activities, were utilised by a wide range of waterbirds, amphibians and fish.

To date, the combined results of the survey programme provide study site records for 266 vertebrate fauna species. This assemblage is regarded as diverse and the total number of species detected on the study site well exceeds the results of similar survey programmes conducted by the authors at other mine sites within the Bowen Basin.

The fauna assemblage recorded on the study site represents approximately 72 per

cent of the total number of species known to occur in similar habitats within the study area.

### Contamination

We have 11 notifiable activities and eight suspected contaminated sites registered with the Environmental Protection Authority (EPA) in accordance with the Environmental Protection Act 1994. At the present time all of the sites are in use. Environmental Management Plans are in place for each relevant notifiable activity so that further possible contamination is minimised. Monitoring programmes are in place for the monitoring of all activities being carried out at these sites.

### Rehabilitation

From 1991 to 2001, we rehabilitated 710 hectares, averaging 64.5 hectares per annum. (Comprising 34.5 hectares of mixed grass seed and 30 hectares of tree seeds). Our commitment is to rehabilitate 60 hectares each year. Mine rehabilitation is reshaped to design contours, covered with topsoil and planted with native tree species.

### Environmental Research

As part of our commitment to sustainable development, we sponsor significant environmental research through the Australian Coal Research Programme with direct funding or in-kind support. A total of 13 major projects were undertaken during the year, six have been completed and seven are continuing, including the management of hydrocarbon waste in the mining industry.



## Safety and Health

### Lost Time

Key performance indicators such as the Lost Time Injury Frequency Rate (LTIFR) are calculated monthly and reported to our board of directors every two months.

During the year, there were no lost time injuries involving employees and one lost time injury involving a contractor. Our LTIFR fell from 2.6 last reporting period to zero and from 4.9 to 1.3 with contractors included.

### Workers Compensation

There were 10 reported workers compensation claims for the year compared with 14 for 1999/2000. Of the 10 claims, two were report-only resulting in no medical expenses or lost time.

Our WorkCover assessed premium rate (per \$100 wages) is forecast for 2001/2002 at 1.515 compared with the industry rate of 1.684. This is the first time we have been under the industry rate.

### Hazard and Risk

#### Programmes

Hazard and housekeeping inspections are regularly conducted by the supervisors, managers and Health and Safety Representatives in the work area.

Near misses and hazards must be reported. A specialised form has been developed for completion where a person reasonably perceives danger to themselves or others or to plant or equipment. This reporting procedure applies to all employees and contractors.

An employee who identifies a hazard must take action to make the area safe, ensuring their own safety is not jeopardised.

Where there is a requirement for further remedial action the employee must report any hazard to the Open Cut Examiner and/or the supervisor, complete the hazard report form as soon as possible and give it to the supervisor for further action.

An integral part of our hazard and risk management is a documented system known as the Job Safety Analysis (JSA). The JSA provides the management tool for identification, assessment and control of hazards where potential loss exposure is present. A JSA provides qualitative and quantitative information to enable management to make informed decisions on the need for appropriate work procedures, work instructions, special rules and skills training.

The JSA is also a management tool for procedure development, training needs analysis, supervision, incident and accident investigation and job safety observation.

#### Emergency Response

The Emergency Response Procedure (ERP) aims to minimise injury, damage to equipment, plant and installations whilst ensuring the health and safety of fire/rescue team members and other personnel.

The emergency management structure for the mine is underpinned by the Crisis Management Plan (CMP). While the ERP will be activated for all three levels of emergencies, the CMP must also be activated where emergencies are classified as level two or level three.

Our three-tier level crisis response system is designed to handle worst case events. Standard processes and well-trained people enable us to mobilise quickly and efficiently manage priorities. The response from the Crisis Management Team (CMT) can be modified to suit the particular incident or situation.

The CMT is the foundation for all our efforts towards successfully containing a crisis. The general manager has control of all situations and all personnel assisting in the emergency response.

#### Materials Handling and Storage

We have a Standard Operating Procedure (SOP) in place for the purchase, storage, use, transfer or decanting from containers and disposal of hazardous substances. The SOP applies to all substances found at the mine, which are classed as hazardous to health or as dangerous goods.

ChemAlert, which is a computer database, is used to register all chemicals approved for use at the mine. Employees will be trained to use and have access to this register.

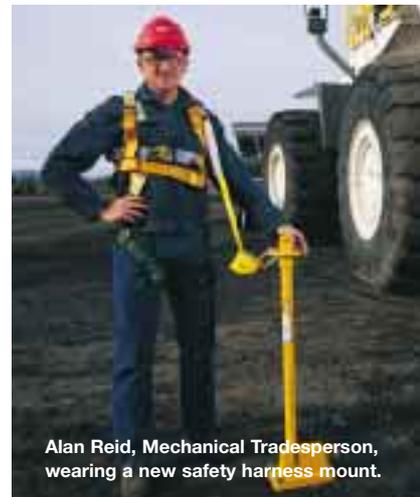
#### Risk Assessment

We are in the process of training employees in the application of local risk control processes. The purpose of this course is to provide risk management knowledge and skills to apply a hazard management process to controlling the risks involved in open-cut mining operations and work processes.

Risk assessments are part of our SOP development programme and risk assessments to AS 4360 are conducted as a joint consultative process with employees on all SOPs.

#### Employee Wellbeing

We have a nominated medical adviser who is an industrial physician. Site visits are now programmed every two months to provide expert medical advice to management and employees. Outside of this time frame, employees can be sent to Brisbane to be examined by the nominated medical adviser.



Alan Reid, Mechanical Tradesperson, wearing a new safety harness mount.



## Community/Social

### Complaints

No complaints were received from the public during the reporting period. Curragh has a complaints register which is kept available for auditing purposes.

### Liaison with Authorities

In 1999, we proposed to open up new mining areas immediately to the east of Blackwater Creek to meet our supply obligations. An Initial Advice Statement (IAS) was submitted to the EPA in February 2000 to advise interested stakeholders of the context of the project and to summarise the relevant environmental and social issues. Copies of the IAS were forwarded to a wide range of stakeholders. A number of environmental technical studies were conducted on the Curragh East area to further define and clarify issues relating to environmental impacts. We regularly updated our neighbours on Curragh East developments. In February 2000, we hosted a meeting of stakeholders, including a tour of the Curragh East area and the existing operation west of Blackwater Creek. Where possible, questions raised by the distribution of the IAS and the site visit were answered immediately or by subsequent contact. A second stakeholders' day was held in April 2000. We continue to consult with our stakeholders, including the EPA, the Department of Natural Resources and Mines and other relevant advisory bodies.

### Action Groups

We are a member of the Fitzroy Basin Association (FBA) which is active in the sustainability of the Fitzroy River catchment area. The Fitzroy catchment is one of the largest river catchments in Queensland. FBA develops strategies in conjunction with all stakeholders for water management of the catchment area. The association coordinates research projects with universities, rural communities, grazing organisations, government bodies and the mining industry.

We host field days for Landcare groups, including the Duraringa Shire group, with formal presentations of how we perform our rehabilitation, weed control and environmental monitoring programmes. We seek to eliminate declared weeds from all leased land, and actively support catchment wide strategies through involvement of coordinated action groups such as Landcare with technology transfer based on site experiences.

We have been a signatory to the Australian Minerals Industry Code for Environmental Management since April 1997. We published an environmental report in 1999 as part our commitment to the code. We signed the revised Code in March 2000 to renew our commitment to the Code obligations and standards to achieve environmental excellence and to be open and accountable to the community.

We were a foundation member of the Central Queensland Mine Rehabilitation Group which was formed in 1991. We hosted a CQMRG open field day in November 2000 with the main agenda being water management. The group meets regularly to share information and investigate issues relevant to mine site environmental management. The first and most important issues are those concerning rehabilitation and water management. Members of the group include mine personnel, consultants and government department representatives.

**Mac Adlan, Senior Statutory and Projects Engineer.**



## Priorities for the Future.

- Continue to manage our operation to minimise the impact on the Curragh mining lease and surrounding areas
- Continue to meet the commitments given in our Environmental Management Overview Strategy and Plan of Operation
- Continue to employ appropriate technology to assist in achieving our environmental targets
- Continue to be open and responsive to our neighbours and the community at large
- Aim to achieve zero incidents and accidents
- Fully implement the Safety Management System
- Promote workforce health education
- Implement SiteSafe database



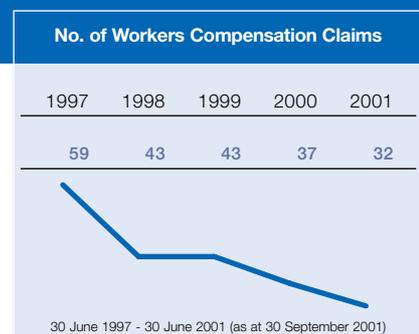
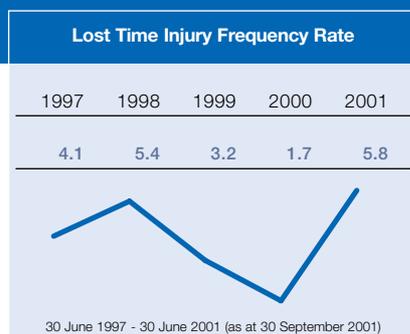
2000 Report Priorities	Outcomes
Work towards a goal of zero contaminant emissions to receiving environments.	Confirmed reductions in long-term trends, and significant plans for improvement.
Continue progressing the safety management systems for our major hazard facilities.	Successful statutory audit completed, and improvement plan in place.
Continue working safely and effectively to deal with our historic wastes by 2006.	Further wastes contained, reused or effectively disposed of.
Groundwater management to protect the resource and water quality.	Extensive monitoring and modelling to aid management, no contaminant incursions and reduced usage.
Train and develop our staff in environmental awareness.	Some progress in training for groundwater and nitrogen management.
No Lost Time Injuries.	Lost Time Injury Frequency Rate (LTIFR) of 5.8.

## Making Progress.

During the year we made further progress towards our goal of zero contaminant emissions in effluent streams. Good progress was also made in resolving some long standing contaminated site issues and in reducing our historic waste stockpiles. We completed and audited our four Safety Reports required by the National Standard for Major Hazard Facilities.

A continuation of our long-term trend in reducing the overall rate of injuries, and fewer workers compensation claims, was balanced by a disappointing increase in Lost Time Injuries.

As part of our commitment to community support, several significant programmes of consultation on aspects of our activities were undertaken.





## Business Management

### Training

Training is integral to improving our workplace safety and health and environmental performance as part of our continuous improvement process.

We have undertaken a review of our process operator competency standards with the aim of bringing them up to the requirements of the Australian National Training Authority PMA 98 for the chemical, hydrocarbons and oil refining industry.

We have commenced training in four modules of the standard and 27 operators have been trained in one or more of them.

As part of our commitment to complying with relevant codes and standards, we are developing comprehensive operating instructions for the new sodium cyanide gas purification plant and ammonia plant.

### Environmental

Our environmental awareness training focussed on nitrogen and groundwater management in the ammonium nitrate business. About 90 per cent of our staff were provided with information on our future environmental management challenges as part of the Business Awareness Programme.

There were also several workplace sessions with relevant staff to review the provisions of our Environmental Protection Act (EP Act) operating licences.

### Health

At Kwinana (WA), we continued the programme aimed at improving personal fitness at work with particular focus on employees who are more at risk from strain injuries.

### Safety

Our main facilities at Kwinana operate around the clock and we aim to maintain trained designated first aid personnel on all shifts.

We provide accredited training to encourage employees to take on the role of safety and health representatives. Apprentices were introduced to the important principles of strain reduction techniques through a programme on manual handling.

All new employees and contractors undergo an induction programme aimed at delivering the essential safety knowledge required for access to our Kwinana site.

### Emergency Response

During the year we maintained an intensive emergency response training programme. About 300 staff were provided with first response competency training (recognising and raising alarms, use of fire extinguishers and basic first aid).

We introduced formal scenario development and training procedures for operators, and our Incident Control Team which trained regularly during the year in a specially-equipped control centre.

We formally developed and practised seven emergency response scenarios and obtained a satisfactory third party audit of our training systems.

The majority of operators in the new ammonia plant underwent training which included emergency response issues.

As part of our close relationship with the Fire and Rescue Service (FRS) we conducted joint exercises at Kwinana, Geraldton and Albany in Western Australia, and ran induction and familiarisation tours of our Kwinana complex for more than 70 FRS officers. In addition we held transport exercises with the emergency services at Kwinana (sodium cyanide – just prior to the year under review) and Meckering (ammonia).

Our Emergency Response Teams, who are on rotating 24-hour call, trained twice a month.



**Lisa Carrabba, Laboratory Technician, carrying out groundwater monitoring at Kwinana, Western Australia.**

## Compliance

### Environmental

On 30 June the WA Government announced a major restructure which changed the name and functions of our most significant regulators. In this restructure the Department of Environmental Protection (DEP), and the Water and Rivers Commission (WRC), became the Department of Environment, Water and Catchment Protection (DEWCP). The Department of Minerals and Energy (DME) became the Department of Mineral and Petroleum Resources (DMPR).

In this report the agencies will be referred to by the former acronyms, which were valid in the year under review.

Our operations are regulated under the terms of licences, and other approvals, issued under the Environmental Protection Act, the Rights in Water and Irrigation Act, the Explosives and Dangerous Goods Act, the Poisons Act and the Commonwealth Industrial Chemicals (Notification and Assessment) Act. In addition to these licences we manage compliance with a wide range of statutory policies, regulations, permits and legislation.

To assist in this process we have a formal legal review of our obligations every three months as part of our Environmental Management System (EMS).

We complied with all of our licence and other regulatory requirements during the year, apart from 32 numerical exceedances of our effluent licence limits for aluminium, nickel and copper. At year's end, no formal feedback had been received from the DEP regarding these exceedances. The daily aluminium concentration limit was later removed from our licence and other licence load limits increased.

We are working with the Department of Environment, Water and Catchment Protection (DEWCP) to resolve these issues.

We have an outstanding appeal against some limits in our Kwinana EP Act licence, which we are discussing with DEWCP. The three issues reported as being under discussion at 30 June 2000 have still not progressed to any conclusion with the DEP.

### National Pollutant Inventory (NPI)

Our first submission to the NPI was made as required in September 2000 and now appears on the Environment Australia web site at ([www.environ.gov.au](http://www.environ.gov.au)). We elected to report on the total 36 substances from the NPI that are involved in our activities although legally we were required to report on only sixteen.

### Health

We provide a fully equipped first aid centre on our Kwinana site staffed by qualified personnel.

We have a comprehensive process for rehabilitation for any employee who sustains injuries at work.

There were no breaches of environmental health regulations notified to us during the year.

### Safety

Two WorkSafe Western Australia Improvement Notices were issued with respect to injuries sustained at Kwinana and these have since been resolved.

### Licensing and Approvals

In addition to the regulatory requirements mentioned earlier in this report, we hold licences or approvals relating to the National Standard for Control of Major Hazard Facilities and Radiation Safety Act.

Apart from the two WorkSafe Improvement Notices, no licence or regulatory breaches were notified to us during the year.

In May 2001, we appeared in the Perth Magistrates Court to answer four charges related to the September 1999 accidental release of arsenic-containing solution from our ammonia plant, as reported last year. Three of the charges were withdrawn and we pleaded guilty to the fourth which related to discharging waste to the environment. We were fined \$20,000 with \$5,000 costs.

Many of our internal responses to this incident are detailed in other parts of this report.

## Management Systems

### Integrated Management System

A number of our systems service and support our quality, safety, environment and financial processes. These include our electronic document management system, purchasing and procurement, financial management and our internal auditing system which has been established to assess the effectiveness and implementation of all management systems.

### Environmental Management Systems (EMS)

We operate an EMS based on the ISO 14001 standard. We have decided not to seek formal certification of the EMS, but will keep the matter under review as standards in this area develop and change.

### Quality System

Two of our processing facilities involved in the manufacture of chlorine and ammonium nitrate, are certified to AS/NZS ISO 9002:1994. The chlor alkali plant achieved certification in 1992 and the ammonium nitrate plant in 1996.



**Carbon dioxide stripping plant at Kwinana works.**



We are currently working to ensure that we maintain certification to the new Quality Standard AS/NZS ISO 9001:2000.

Our product quality laboratory is certified by the National Association of Testing Authorities analytical and reporting processes.

#### **Safety Management System**

We have developed workplace safety plans for all our business units and these are kept under continual review to ensure they remain relevant.

Our ammonia, ammonium nitrate, chlor alkali and sodium cyanide facilities operate under safety reports prepared to meet the requirements of the National Standard for Major Hazard Facilities (NOHSC1014: 1996).

During the year we conducted our first statutory (external) audit of these safety reports. Many issues in need of remedial action were detected but the audits found that our safety systems enabled us to continue safely operating the four processes.

We have also commenced reviewing the Quantified Risk Assessment for our Kwinana site and are in the process of developing a hazard register and a formal risk assessment tool.

#### **Policy**

We have formal environmental, quality and occupational health and safety policies which are displayed in all workplaces and form the basis of our systematic management of these issues.

Copies of the policies are available on request (telephone (08) 9411 8232) or by e-mail to [responsible\\_care@csbp.wesfarmers.com.au](mailto:responsible_care@csbp.wesfarmers.com.au).

We are a signatory to the Responsible Care voluntary programme for environmental and safety management developed by the world's chemicals industry and implemented in more than 40 countries.

It aims to go beyond regulatory compliance by promoting effective systems, risk assessment and management and continuous improvement processes and is implemented through eight Codes of Practice:

- manufacturing safety;
- transport;
- community right to know;
- research and development;
- warehousing and storage;

- product stewardship;
- waste management; and
- emergency response and community awareness.

The revised Responsible Care programme will be launched at a conference in November 2001 following a review which will result in changes to the Codes of Practice. We will develop an implementation plan for the relaunch of Responsible Care based on our existing procedures and processes.



**Allen Borham, Safety/Health Advisor, using noise monitoring equipment at Kwinana.**



# Environmental

The data in this section has been collected by internal monitoring in accordance with our Quality manual. It is generally obtained from point source emissions and will in small ways differ from that reported as part of the National Pollutant Inventory because of the way in which our business units are structured.

## Air (Atmospheric Emissions)

### Dust

Dust from all sources reported to the NPI was 209 tonnes. One significant point source was particulates from our ammonium nitrate prilling plant at Kwinana (Figure 1). During the year a second dust meter to assist process control of the emissions was installed on the plant and particulate emissions continued to reduce. We are working closely with the DEP on this issue.

### Odour

We had four odour complaints during the year that related to our Bunbury fertiliser plant. Our most significant issue is organic odours from certain phosphate rocks and we attempt to avoid rock sources with high organic contents.

We continued a collaborative research project with other Australian producers reviewing options for odour reduction measures.



Dune restoration at Cockburn Sound, Western Australia.

## Greenhouse Emissions

We retained our membership of the Greenhouse Challenge programme operated by the Commonwealth Government. During the year our greenhouse gas emissions totalled 716,662 tonnes, an increase of 242,110 tonnes on 1999/2000, largely because of the full operation of the higher-capacity new ammonia plant during most of the year. This total is less than our Greenhouse Challenge objective for 2001, and also the lower 2000 objective.

About half of our emissions emanate as nitrous oxide (N<sub>2</sub>O) which has a very high carbon dioxide equivalent rating – a multiplier of 310 is used to make the conversion. We continue to keep technological methods for reducing N<sub>2</sub>O under review.

## Noise

We participated in an industry review of cumulative noise from the Kwinana Industrial Area. This indicated the possibility of unacceptably high night time noise levels in some residential areas. The results are

yet to be verified and are expected to be released in early 2002, but will need to be carefully reviewed to ensure they accurately reflect noise sources from the entire industrial area before action plans to address any issues can be developed.

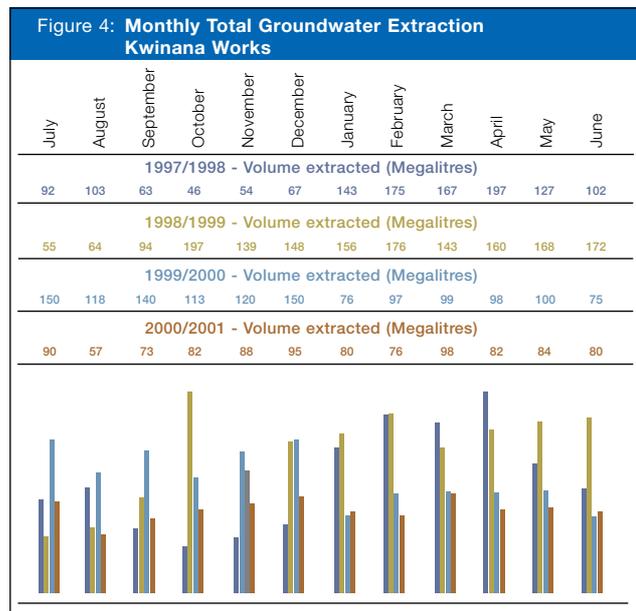
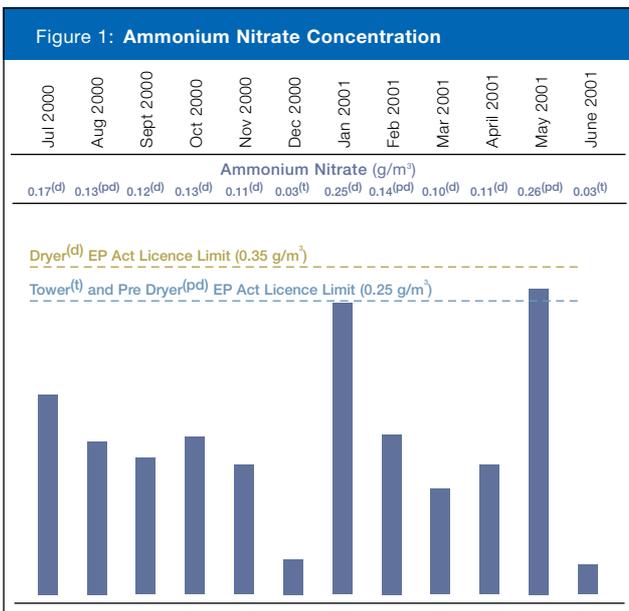
Extensive surveys on our Kwinana site revealed the need for action to reduce noise levels from the ammonia and sodium cyanide plants to ensure we comply with the relevant regulatory limits at our property boundary. Plans and funding are in place to achieve this outcome in calendar year 2001.

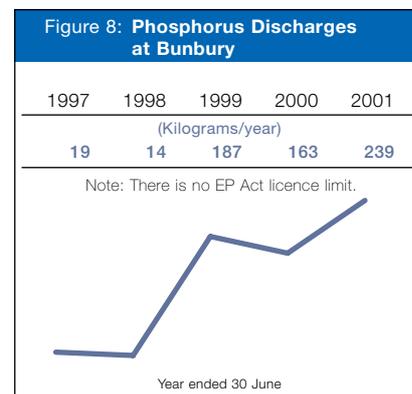
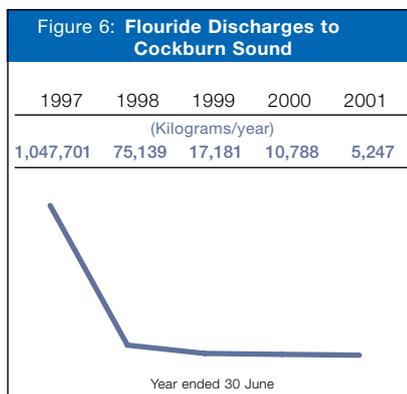
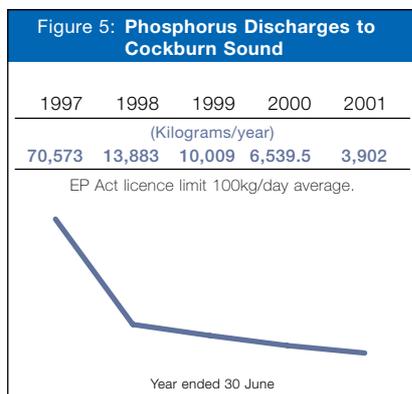
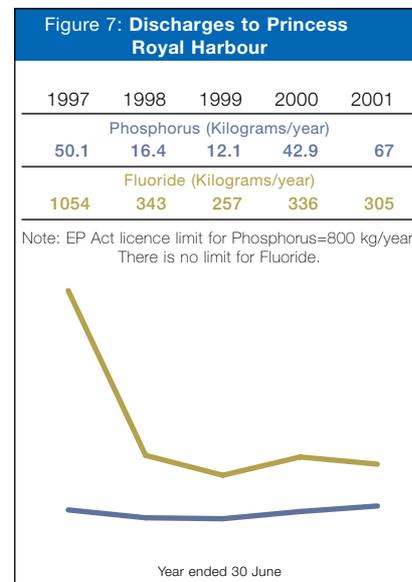
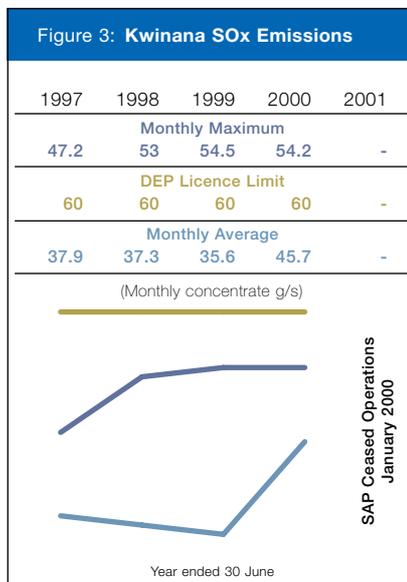
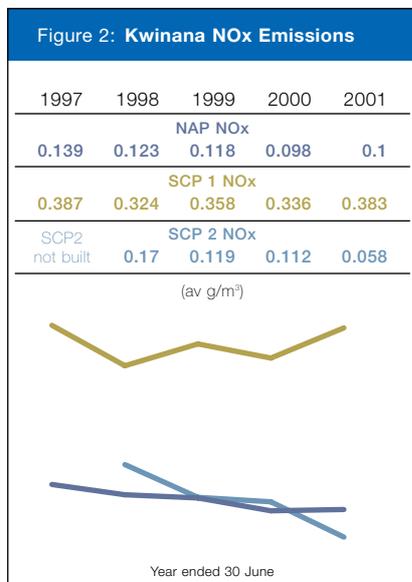
We participate in a Rockingham consultative group dealing with noise management and report to that group as necessary on progress.

## Other Emissions

### Oxides of Nitrogen (NO<sub>x</sub>)

In Kwinana, both our sodium cyanide and nitric acid plants operated well within their EP Act licence limits in relation to NO<sub>x</sub> emissions (see Figure 2).





**Sulfur Dioxide (SOx)**

Despite the closure of our sulfuric acid plant at Kwinana, we continue to contribute to ambient sulfur dioxide monitoring which again showed that SOx levels in the area remained well below prescribed limits (Figure 3).

Our Albany and Esperance sulfuric acid plants continued to operate (for that part of the year when fertiliser production occurred). Both produce amounts of sulfur dioxide (and NOx) as part of their usual production process, but in neither case is there any environmental impact sufficient to require an EP Act licence condition. In June 2001 we announced both plants would close by mid 2002.

**Chlorine**

The Kwinana chlor alkali plant continued to operate within chlorine emission limits. A comprehensive Chlor alert monitoring system (with a detection level of approximately one ppm) operates at many sites in and around the plant. During the year we recorded 90 chlor alerts compared to 61 in 1999/2000. Each of these is investigated, but in many cases they relate to a slight release of chlorine vapour as transport cylinders and plant valves are opened for testing and cleaning.

In the sodium cyanide and Chlor alkali businesses we operate fixed halon fire suppression systems. These are to be phased out under the state's Ozone Environmental Protection Policy and will be replaced at a cost of \$150,000 in 2001.

**Ammonia**

Apart from manufacturing, storing and distributing ammonia from Kwinana, we also store it at Albany and Esperance. Storage at these two sites will cease in 2001/2002 when we stop sulfuric acid manufacture there.

During the year we had no confirmed ammonia emissions from any of these facilities. There was one complaint at Kwinana of a release but checks of our process control records indicate it did not emanate from our site.

**Water**

**Consumption**

At Kwinana and Esperance we abstract groundwater under licence from the Water and Rivers Commission (WRC). Figure 4 shows our groundwater usage from the Tamala (superficial) aquifer. We extract

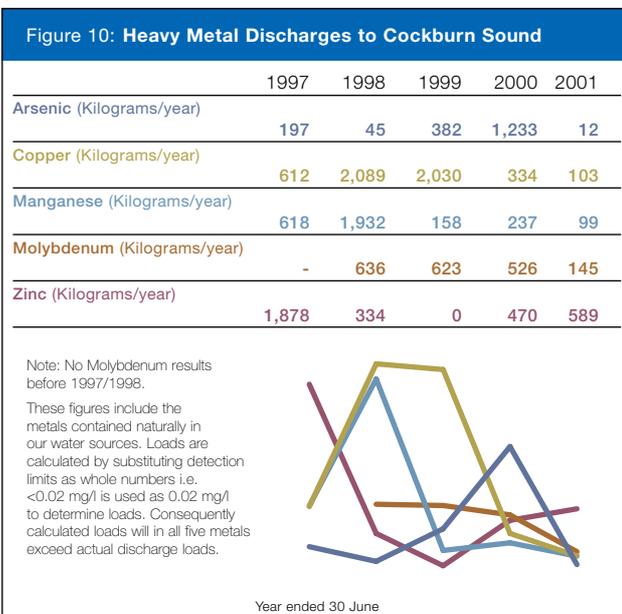
water also from the Yarragadee sub artesian aquifer. The more effective measurement equipment installed last year confirmed the downward trend in groundwater usage.

Our water abstraction was well beneath our WRC licence limits and these licences were renewed to June 2002.

**Groundwater**

Groundwater is a significant management issue at all our sites with the emphasis on preventing contamination of the resource. Groundwater management is most important at Kwinana where we, and neighbouring industries, rely on it for cooling and process water. We also have to deal with some historical contamination issues. Together with the neighbouring BP refinery we modelled the Tamala aquifer resource and decided to limit our usage to no more than 1.5 million kilolitres (kL) per annum, as opposed to our licence amount of 2.8 million kL.

With other Kwinana industries we completed an extensive sampling and analysis programme on the phenol plume emanating from a previous chemical industry plant to the north of our site.



We are managing our water abstraction to prevent the further spread of this plume and will discuss its long-term management with the government during 2001/2002.

Regular analysis for a broad range of substances in our water sources revealed no issues of concern during the year (other than the chlor phenol plume, which is being carefully managed).

We are co-operating with other industries to initiate the Kwinana water recycling plant, which will treat water from the Cape Peron wastewater outfall for industrial use. This will reduce our demand on the groundwater, create additional space for future increases in flows in the pipeline, release a significant scheme water resource for use elsewhere in Perth and allow industries to almost totally cease contaminant discharges to Cockburn Sound.

**Discharges to Surface and Groundwater**

With one exception, we do not have any discharges to groundwater other than rainfall run-off from various buildings. At our Esperance site, sulphate enriched effluent is discharged to sumps after testing under the terms of our EP Act licence. Monitoring has detected no significant environmental impact from this activity.

We conduct extensive monitoring of discharges to the marine or freshwater environments at our Kwinana, Bunbury and Albany sites.

Phosphorus and fluoride emissions remained very low at all three sites. At Kwinana (Figures 5 and 6) phosphorus emissions totalled 3,902 kilograms (kg) and fluoride emissions were close to the background levels in seawater.

At Albany (Figure 7) our good performance in this area continued, with fluoride emissions at 305 kg, compared with 336 kg in 1999/2000 and a continuing low level of phosphorus emissions at 67 kg compared with 42.9 kg in 1999/2000.

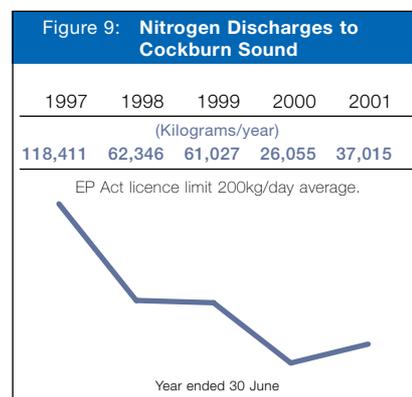
At Bunbury, phosphorus emissions (Figure 8) remained low, in comparison to historical levels, at 239 kg, compared with 163 kg in 1999/2000.

During the year we continued our review of options for ceasing effluent discharge to the environment at both Albany and Bunbury. Unfortunately it does not appear that nutrient-stripping wetlands are the complete answer and we are now reviewing other methods such as sewerage connection.

Nitrogen emissions to Cockburn Sound increased from 26 tonnes in 1999/2000 to 37 tonnes in 2000/2001. This increase was foreshadowed in last year's report because of a return to full ammonia production. (see Figure 9). At Albany, nitrogen emissions to stormwater increased from 1,369 kg in 1999/2000 to 2,957 kg in 2000/2001.

This increase mainly occurred in one month of exceptionally heavy rainfall. We have reviewed our practices for dispatching fertiliser at the site in an attempt to ensure that level of emission is not repeated.

Heavy metals (elements such as copper, lead, zinc and vanadium) are present at trace levels in many of our fertilisers and occur naturally in the groundwater and soils in Western Australia. In Figure 10 we describe our combined heavy metal effluent loads at Kwinana over five years to demonstrate progress in this area.



Aside from fertiliser trace elements, zinc is used at Kwinana as a necessary additive to cooling tower waters. We are continually reviewing ways to reduce zinc usage and regularly monitor cooling tower blowdown to assess progress. During 2001/2002 we are hoping to make another significant improvement by using higher quality water, containing less chemicals in the largest cooling tower.

**Reuse**

Our sodium cyanide and superphosphate plants at Kwinana recycle almost all of their process and rainwater effluents. The fertiliser granulation plant currently reuses about 10,800 cubic metres of nitrogen and phosphorus-rich water each year back into fertiliser products.

We are also reviewing many production practices to reduce the volumes of plant wash water we create, particularly in the ammonium nitrate plant, to both reduce nitrogen effluents and water use.

Figure 11: General Waste Disposal to Landfill at Kwinana

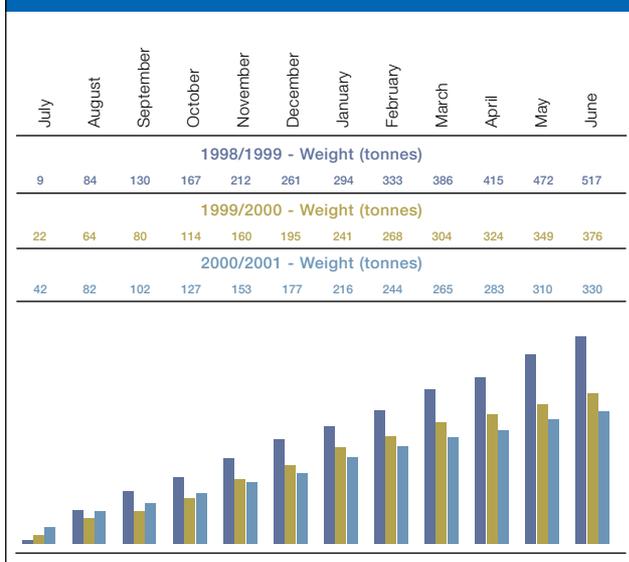
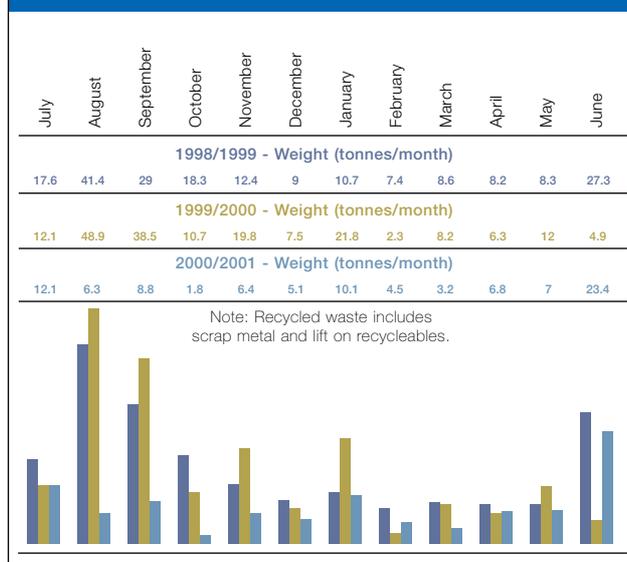


Figure 12: Kwinana Site Recycled Waste



## Waste

We manage all our waste streams in accordance with the principles of avoiding, reducing, reusing, recycling and treating waste, before disposal is contemplated.

Our central objective is to deal with waste in the plants where it is created to ensure there is proper analysis and review undertaken before treatment or disposal action is taken.

### Solid Waste

At Kwinana we continued our waste-recycling programme, combined with a clear waste segregation effort and the improved results are shown in Figures 11 and 12.

We again made significant progress in managing our pre-existing waste stockpiles through:

- reprocessing about 4,370 tonnes of sulfur filter residues back into fertiliser;

- removing and safely storing for potential recycling the catalysts from our closed ammonia plant;
- removal (in May 2000) to appropriate landfill of about 2,017 tonnes of solid process wastes built up over many years from the effluent system; and
- demolition of the Geraldton sulfuric acid plant and the recycling of 1,026 tonnes of lead from the plant.

### Liquid Waste

We manage all our liquid wastes requiring off-site treatment in accordance with relevant legislation. Our superphosphate plants recycle almost all the low strength fluosilicic acid wastes they create and our ammonium nitrate and fertiliser granulation plants recycle large quantities of nitrogen and some phosphorus-rich effluents into valuable products.

## Land

### Flora and Fauna

All of our manufacturing sites have been cleared in the past, but now have some form of amenity plantings internally or on their boundaries. We also own a site at Calista in Western Australia that contains an excellent example of a Swan Coastal Plain wetland. The site is adjacent to the Leda Nature Reserve and we intend to manage it in cooperation with the Department of Conservation.

Pigeon populations in the Kwinana area may present some threat to endemic fauna populations on nearby islands in Warnbro Sound. We are involved in cooperative efforts to research and control these pigeons.

## Contamination

Because we operate on several relatively old industrial sites, we do have some instances of soil and groundwater contamination. Our principal objective is to prevent new contamination occurring while remediating existing sites in a planned way.

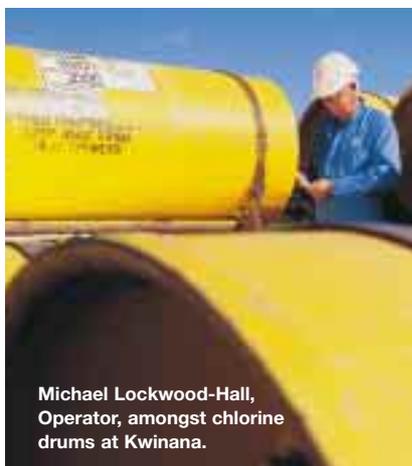
During the year:

- a site contamination assessment of our Geraldton site was concluded and this will form the basis for future action at the location;
- we concluded our research into the previously reported ammonia/arsenic groundwater plume at Kwinana, and selected a new technology for the work. In August 2001, we gained regulatory approval for our plan and a proposed three year project will begin in 2001/2002; and
- we made further progress in developing a remediation strategy for our Bayswater fertiliser manufacturing and distribution site, east of Perth. A soil washing technology was tested successfully in a pilot scale plant and considerable investigation was completed into the acid-generating capacity of the soil. We will discuss this issue with DEWCP and the EPA in 2001/2002.

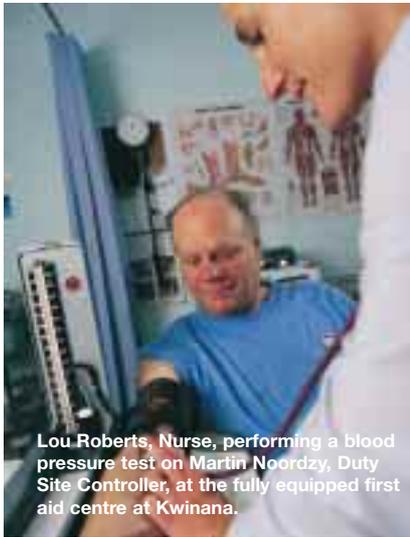
## Resource Use

We use a great deal of energy in the form of natural gas and electricity, the large majority of which is process-related. The same comment applies to raw materials purchased for our fertiliser manufacture business.

During the year we consumed 885,000 litres of petrol and 91,000 litres of LP Gas, in our fleet of 126 vehicles.



Michael Lockwood-Hall, Operator, amongst chlorine drums at Kwinana.



Lou Roberts, Nurse, performing a blood pressure test on Martin Noordzy, Duty Site Controller, at the fully equipped first aid centre at Kwinana.



## Safety and Health

### Lost Time

Our Lost Time Injury Frequency Rate (LTIFR) was 6.2 and 5.8 when contractors are included.

This was a disappointing result when compared with last year's zero LTIFR for employees and 1.7 including contractors.

However, the number of all reported injuries has steadily declined from 337 in 1995/96 to 127.

### Workers Compensation

We incurred 32 workers compensation claims, compared with 37 in the previous year. We are committed to maintaining the downward trend established over recent years.

### Hazard and Risk

#### Emergency Response

Our emergency response function is central to our programmes for risk and hazard management and protection of people and assets.

We use the Planning, Prevention, Response, Recovery (PPRR) emergency services system.

We have internal incident control and training systems compatible with the state's emergency services.

The strengthening of our relationship with the Fire and Rescue Service (FRS) continued during the year, both for on-site and off-site emergency management. The FRS is developing plans relating to the emergency response needs of all the buildings on our Kwinana site.

We have supported the state government's proposal for an emergency services levy on property rates in an effort to more equitably fund WA's emergency services.

We introduced formal scenario development and response training for operations staff, to supplement the training provided by each business unit.

During the year we attended four transport-related incidents, four incidents involving our products stored at customers' facilities and 13 at our Kwinana site. Of these Kwinana-based incidents, eight were attended by the FRS and were identified as either false alarms or of a very minor nature. No injuries or property damage resulted from these on-site incidents.

No emergency incidents were recorded at our regional operating sites.

#### Materials Handling and Storage

Collectively we handle, store and distribute more than 2,000,000 tonnes of material each year (including internal handling during manufacture) in solid, liquid or gaseous form. Our operations hold all the necessary licences and permits.

Our operations are covered by purpose-specific procedures that are regularly reviewed and updated.

During the year we had no significant losses of material to the environment from our materials handling operations, other than in our effluent streams reported elsewhere in this report.

#### Risk Assessment

Our risk assessment processes operate on two levels. The public (or societal) risk from our operations is assessed through our Quantitative Risk Assessment (QRA) for our Major Hazard Facilities at Kwinana. These documents, which support our safety reports, are prepared by independent technical consultants who review our operations, the inherent risks involved, and the design, engineering and procedures features we have in place to mitigate these risks.

During the year we commenced a review of the entire QRA for the Kwinana site scheduled for completion in early 2002. The results will be used to review our safety reports.

As part of this process we are also reviewing our risks register and developing a system to review proposed changes against the QRA risk profiles.

At the operations level, we use techniques such as HAZOP, and risk assessment tools to review the potential impact of proposed changes and ensure the management controls proposed are appropriate. Many of these issues are also subject to regulatory oversight.

### Employee Wellbeing

We provide a fully equipped first aid centre at Kwinana staffed by qualified personnel.

Employees are encouraged to attend voluntary annual health examinations to maintain their personal health.

For employees who suffer illness or injury arising from their work, we provide a high standard of first aid and follow-up medical treatment. We ensure that we take all available steps to achieve a timely and complete rehabilitation including return to normal work or the provision of alternate duties.

A health awareness newsletter is distributed to employees, which provides information on improving fitness, lifestyle and health.

We provide a personal and confidential counselling and support service to our employees and their families. We do not have access to any of this data.

We promote fitness by encouraging participation in events such as the Heart Foundation's "Climb To The Top".



## Community/Social

We are an active and responsible member of the communities in which we operate. We believe it is important to invest in building strong community partnerships and participating in projects which benefit the community.

Through our programme of sponsorships, consultation and partnerships, we are committed to meeting our social obligations and the expectations of the community.

### Complaints

During the year we had six complaints from third parties. All of these were relatively minor and able to be resolved.

### Communication

We place strong emphasis on sharing information and maintaining open communications with the community and our stakeholders:

- we provided information at the Kwinana Community and Industries Forum on a range of projects, including the construction of our new gas purification and sodium cyanide solids plants;
- we regularly participate in a local area planning group with a range of government and community stakeholders;

- in December 2000 we held a full presentation and site tour for local Kwinana interest groups to inform them about progress and achievements in environmental management, safety and health;
- we produced in December a community information video on our products, services, community consultation and employee involvement;
- in May 2001 we consulted with more than 550 residents and approximately 80 businesses in Geraldton in relation to the demolition and removal of our sulfuric acid plant; and
- also in May, we began extensive stakeholder consultation with more than 20 community and government organisations regarding changes to our operations in Esperance and Albany.

### Website

Early in 2001 we updated our website [www.csbp.com.au](http://www.csbp.com.au) to include additional information on major developments and projects, community sponsorships, news and events.

### Community Support

#### Research

Our partnership with Australian Earthcare Solutions (AES) is part of our commitment to recycling and reducing waste to landfill. We provide organic wheat waste for worm farms at AES, which is converted to high quality soil for use in the community.

CSBP futurefarm is involved in a range of research partnerships with universities, AgWA, CSIRO and other organisations.

For example, we participate in a turf research project, as well as fertiliser trials, which examine nutrient flows and deficiencies in a variety of crops. Our research partnerships are a valuable contribution to agriculture and environmental sustainability.

### Sponsorships

We are proud to sponsor a broad range of projects which represent the diversity of community interest in issues such as landcare and environmental sustainability, community safety and health and ongoing investment in the development of skills in children and young people.

In January 2001 we renewed our commitment as major sponsor of the CSBP Chair of Cleaner Production at the John Curtin International Institute. The Institute offers tertiary education in cleaner production management and development and coordinates the activities of the Sustainable Industries Group.

We sponsored the WA NoTillage Farmers Association Annual Conference.

We sponsored the environment awards for the Plastics and Chemicals Industries Association across Australia.

We were the major sponsor of the Rockingham Emergency Services Expo 2000 which promotes community education on the responsibilities of many volunteer emergency groups.

We increased our programme of site tours for schools and universities.

During the year, we sponsored hundreds of regional and metropolitan community organisations.

## Priorities for the Future.

- No lost time or serious injuries
- Continued work toward our goal of zero contaminant emissions to receiving environments
- Continue working to safely and effectively deal with our historic wastes by 2006
- Groundwater Management to protect the resource and water quality
- Reduction of noise emissions from our Kwinana site as part of the combined effort in this area by Kwinana Industries
- Continue development and implementation of our risk reduction programmes in our major hazard facilities
- Continue our contribution to the social wellbeing of the Western Australian community

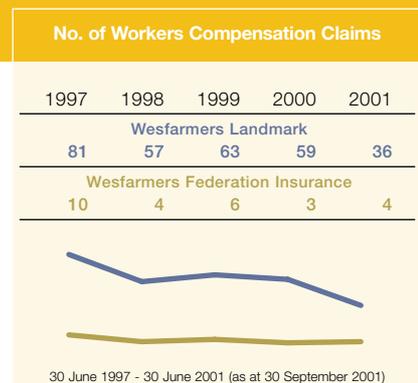
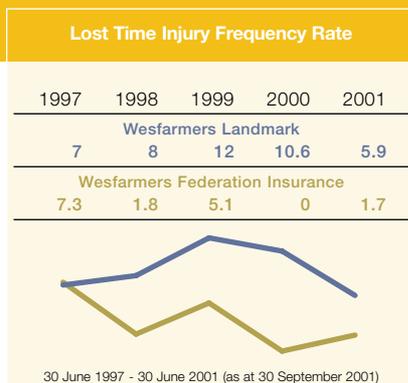


2000 Report Priorities	Outcomes
Halve Wesfarmers Dalgety's LTIFR, maintain zero at Wesfarmers Federation Insurance and reduce workers compensation claims.	Wesfarmers Dalgety's LTIFR decreased on a rolling scale from 10.6 to 5.9 (44 per cent) for 2000/2001. (These figures apply only to Wesfarmers Dalgety and do not include the merged business). Wesfarmers Federation Insurance's LTIFR increased to 1.7 for the same period.
Implement Wesfarmers Dalgety health and safety management system and complete revision of the Wesfarmers Federation Insurance system.	At Wesfarmers Landmark our revised OS&H policy, accident and incident reporting procedures, and induction and training programmes have been introduced on our Intranet. This process will be ongoing. During 2000/2001 Wesfarmers Federation Insurance's OS&H policy and procedures were revised.
Maintain Agsafe accreditation of all relevant Wesfarmers Dalgety branches.	The majority of sites have maintained accreditation.

## Making Progress.

A reduction in the Lost Time Injury Frequency Rate (LTIFR) of 44 per cent and a significant drop in workers compensation claims were highlights of the year. So, too, was the maintenance of the majority of branch accreditations with Agsafe, the industry body that implements the self-regulatory regime applying to the handling and sale of agricultural chemicals. Our major financial commitment continued to a dryland salinity research project based at the University of Western Australia.

This report includes some information relating to the activities of IAMA Limited following its February 2001 merger with Wesfarmers Dalgety to form Wesfarmers Landmark, but does not purport to be a full account of the new entity. Nor does it cover joint ventures, partnerships and other business arrangements for which we have no direct management responsibility. Data for the report was collected from a survey distributed to all branches and partnerships. The response, from almost two thirds of locations surveyed, was reasonable given the ongoing merger of the businesses.





**The Wesfarmers Landmark store in Wagga Wagga, New South Wales.**

Agsafe calls for nominations each year to highlight and recognise achievements in the agricultural and veterinary chemical industry around Australia. Our Wagga Wagga and McLaren Vale branches this year won the NSW and South Australian Agsafe Excellence Awards respectively and are in contention for the overall national award.

#### **Safety**

Safety training with particular emphasis on handling cattle in saleyards has been conducted for groups of livestock staff. We have also introduced a saleyard induction programme for all new saleyard staff. A task force will be set up during the coming year to investigate further strategies to assist with the safety of our staff and visitors to saleyards.

We are introducing a safety induction programme for new staff in merchandising. This will cover emergency procedure, storage and handling of chemicals and general procedures.

During the year a number of staff attended first aid training and other safety and/or environmental training on an informal branch basis.

Our induction programme and our occupational health and safety sites on our Intranet deal with issues such as back safety and manual handling. We also have links to government agencies for staff to update knowledge in these areas. At Wesfarmers Federation Insurance we also use the Intranet to keep staff informed of safety and health issues.

#### **Emergency**

To gain Agsafe accreditation an emergency procedure plan is required to be presented.

Branches are encouraged to involve local emergency agencies such as the fire brigade and police in their on-site training. Offers have also been made at some locations for these agencies to use our facilities for training within the wider community.

## **Compliance**

### **Environmental**

Through our Agsafe accreditation of both branches and staff, Agsafe publications, government agencies, local authorities and internal resources we keep our staff informed of environmental requirements and endeavour to comply with these.

### **Health**

Occupational health and safety legislation varies from state to state and our regional management teams are responsible for keeping staff fully informed.

Our national occupational health and safety specialist has an overall responsibility for these issues.

### **Licensing and Approvals**

The Agsafe national accreditation aims to ensure that there is responsibility, regulatory compliance and duty of care throughout the supply chain. The industry has approval from the Australian Competition and Consumer Commission (ACCC) not to trade with individuals or organisations that do not meet their accreditation obligations. To gain accreditation for a site we must prove that we are compliant with all federal and state legislation and regulations covering agricultural and veterinary chemicals. We are represented on the Agsafe Council.

Accreditation targets are set for agricultural and veterinary chemicals as defined in Section 4(1) of the Commonwealth Agricultural and Veterinary Chemicals Act, 1988, including specified poisons and other dangerous goods. Agsafe accreditation requires planning for emergency procedures for chemical spills, fire, contact with poisons, and evacuation procedures.

Premises are audited by external qualified auditors through Agsafe every two years. Agsafe maintains a register of the current accreditation status of each location and staff. Should a branch fail to maintain compliance requirements, it may have trading sanctions placed upon it. Agsafe retains records of all premises audited. Any location with outstanding items is notified and must rectify the item prior to receiving a renewed certificate. Currently several branches have attended to outstanding items and are waiting on Agsafe to confirm their re-accreditation. At the time of reporting, Agsafe listed 247 sites of which 212 had maintained accreditation, 19 were in various stages of self-assessment and 16 were non-accredited.

There is no obligation for locations that carry minor levels of agricultural or veterinary chemicals to be accredited. However the ACCC is considering broadening the scope to cover all agricultural suppliers and if this eventuates Wesfarmers Landmark will comply.



## **Business Management**

### **Training**

#### **Environmental**

All staff handling and selling agricultural chemicals are required to be accredited under our obligation to Agsafe. The training covers all areas of storage, handling and transportation of dangerous goods and other relevant areas to give employees an understanding of agricultural chemicals and their properties.

The Agsafe accreditation programme requires each participant to attend a two or three day course and pass an examination. Accreditation must be updated every three years by attendance for a further day. The additional training also covers areas of chemical safety, dangerous goods legislation and storage and handling.

During the year 194 staff completed their initial Agsafe Accreditation Training and 503 were re-accredited. Our aim is to achieve accreditation for all staff selling agricultural chemicals.



**Bradley Kelk, Merchandise Trainee, checking a cabinet containing flammable material.**

Licences for the storage and handling of dangerous goods and chemicals are required in each state, but not all of our premises carry large enough quantities to require licensing. Where required, premises are licensed and renewed bi-annually. At all times sites are going through various stages of Agsafe re-accreditation.

We operate under various federal and state legislation and regulations. Licences held by the company which are considered to have an environmental impact are those relating to the storage and sale (wholesale and retail) of chemicals and dangerous goods. Most of these are covered under our Agsafe accreditation for both premises and staff.

Amended dangerous goods (storage and handling) regulations were introduced in Victoria in December 2000 and other states have also introduced hazardous substance regulations during the past year. These changes are included in updates from Agsafe. We propose to increase our internal communications to staff to improve compliance.

We conducted a survey, which showed 15 sites (10 per cent) had reported environmental or safety incidents during the year. The most common cause was leaking chemicals (seven incidents) and storage problems (four sites). Ninety per cent of sites (139) reported no complaints or incidents in their merchandise operations.

We own and operate saleyards throughout Australia. Many of these handle small volumes of sheep and cattle, and have negligible environmental impact. The major issues for large saleyards are effluent run-off, dust and noise. This report deals only with saleyards owned and operated by us.

The requirements for licensing of saleyards in Australia vary from state to state. In New South Wales and the Northern Territory there are no licensing requirements under the EPA. Other bodies, such as the NSW Meat Industry Authority, license saleyards to ensure they meet construction and animal welfare standards with a focus on quality assurance of the end product. Some local councils also require saleyards to be licensed, and other saleyards have National Saleyard Quality Assurance accreditation.

The EPA in Queensland has passed the responsibility for saleyards to the Department of Primary Industry (DPI), who do not require saleyards to be licensed but do check on environmental issues. As reported last year, there are environmental issues associated with our Toowoomba saleyards regarding soil contamination and effluent run-off.

The current situation has yet to be formally considered as acceptable by the DPI.

In Western Australia saleyards are required to be licensed, under the Environmental Protection Act (1986), where the annual throughput exceeds 10,000 cattle per annum. Our only saleyard requiring licensing is at Northam and this is currently operating under a restricted licence.

This saleyard will be inspected again later this year by the Department of Environmental Protection, and if any upgrading is required to meet saleyard environmental conditions compliance dates will be placed in the licence.

In South Australia all saleyards with throughput greater than 50,000 sheep (or equivalent stock) per annum are required to be licensed. Our saleyards at Strathalbyn and Jamestown hold current licences. Trees have been planted at both these yards to reduce dust and at Jamestown funds have been allocated in this year's budget to install a watering system for dust suppression.

In Victoria livestock saleyards or holding pens designed to have a throughput of at least 10,000 animal units per year are required to be licensed. However, premises discharging or depositing waste solely to land are exempt. Our Heywood, Traralgon and Koonwarra saleyards meet the throughput requirements, but are exempt from licensing on the basis of their discharge activities. Effluent ponds have been built at our Yarram saleyards, but do not require monitoring by the EPA due to their limited capacity. In Victoria we have many saleyards that are used only once or twice yearly and do not require licensing.

## Management Systems

### Environmental Management System (EMS)

We have no documented EMS in place. We report every year to the Wesfarmers Limited board on our environmental performance.

### Safety Management System

We are committed to the provision of a safe and healthy work environment. It is our objective to be recognised by our employees, customers, community and stakeholders as a responsible company committed to the continued improvement of health and safety management in all business activities. Safety of our employees is not negotiable.

The aim of our occupational health and safety system is to:

- create an environment where health and safety are integral parts of day-to-day business;

- identify all work hazards and put in place effective strategies and training to manage them;
- maintain accurate records to allow analysis and forward planning; and
- reduce accidents and incidents.

Our overall objective is to position safety as the normal way of doing things.

Accident reporting and investigation are integral to our occupational health and safety plan. The information collected is analysed and used to plan ongoing strategies.

All accidents and incidents are required to be reported to assist with rehabilitation. Our policy is to offer alternative duties to injured workers to allow them to return to work at the earliest possible time.

Any lost time injury must be reported to our managing director within 24 hours.



## Environmental Air (Atmospheric Emissions)

### Dust

Dust is an issue around saleyards and can also be associated with the transmission of "Q"-fever to humans. At some locations, such as Jamestown and Mt Gambier in South Australia, trees are being planted to help address the dust issue.

### Odour

Formal complaints have been received from agencies in relation to our Kimba, Lamaroo and Lucindale branches in South Australia regarding odour from creosote posts stored for sale.

### Greenhouse Emissions

We have no accurate measure of Greenhouse emissions which originate mainly from energy use at our branches. Given that we act only as agents for livestock we do not consider animal emissions to be our direct responsibility.

## Water

### Groundwater

We are the commercial partner in the Cooperative Research Centre (CRC) for Plant-based Management of Dryland Salinity. The CRC is based at the University of Western Australia and other partners include Charles Sturt and Adelaide universities; departments of agriculture or natural resources in Western Australia,

South Australia, Victoria and New South Wales; the Commonwealth Scientific and Industrial Research Organisation; National Farmers Federation (NFF); Australian Conservation Foundation; Grains Research and Development Corporation; Murray Darling Basin Commission; and the National Dryland Salinity programme.

Over the next seven years, we will provide \$350,000 in direct financial support plus staff resources throughout our national network.

Dryland salinity is recognised as the greatest environmental threat to rural and regional Australia and therefore has implications for the economic and social wellbeing of every Australian. The work of the CRC will make a valuable contribution to enabling primary producers to manage and possibly control salinity.

### Recycling

We promote the drumMuster programme and act as a collection depot at some locations. The programme is an environmental initiative developed by the National Association for Crop Production and Animal Health, together with the NFF, the Australian Local Government Association and the Veterinary Manufacturers and Distributors Association, to encourage the return and recycling of used chemical containers from farmers.

### Contamination

We acknowledge the potential for contamination at some of our sites, particularly saleyards, where past practices may have involved the use of chemicals in controlling parasites on stock. Our Toowoomba (QLD) and Goulburn (NSW) saleyards require preparation of rehabilitation plans and this will be done in consultation with relevant authorities.

## Resource Use

### Fuel

There are now about 1,200 vehicles in the fleet as a result of the IAMA merger. Due to the incomplete merger process, it is not possible to accurately detail total fuel consumption. Last year 73 per cent of our vehicles were fitted with LP Gas tanks. Following the merger with IAMA, this figure has now reduced to approximately 53 per cent due to the large number of utility vehicles and diesel-fuelled four-wheel drive vehicles. At vehicle changeover dual fuel tanks are fitted and employees are encouraged to use LP Gas rather than petrol in these vehicles.

Wesfarmers Federation Insurance has 85 company vehicles, 31 of which use LP Gas. We expect this to increase with the greater availability of gas in country areas.



Forklift loading inside a Landmark store.



## Safety and Health

### Lost Time

Wesfarmers Landmark achieved a reduction in its LTIFR from 10.6 to 5.9. We introduced a formal reporting process for non-lost time injuries. In 2000/2001 these totalled 88. These figures apply only to Wesfarmers Dalgety and do not include the merged business.

Wesfarmers Federation Insurance recorded an LTIFR of 1.7 compared with zero in the previous year due to there being one lost time day during 2000/2001. There were seven non-lost time injuries.

### Workers Compensation

There was a 39 per cent reduction in the number of workers compensation claims submitted at Wesfarmers Landmark.

At Wesfarmers Federation Insurance, four claims were made - an increase of 33 percent on the previous year.

### Hazard and Risk

#### Programmes

A checklist has been developed to be completed at all locations on a regular basis and incorporated in our audit process. Audits were conducted by an independent contractor on our Traralgon (VIC) and Koonwarra (VIC) saleyards to examine their suitability for National Saleyard Accreditation. Recommendations were made and work is continuing to improve safety in these saleyards. Staff and visitor safety has been improved at the Toowoomba saleyards by improvement to selling rails and pen railing.

An external safety consultant was employed by IAMA prior to the merger to visit a representative number of branches in all states, identifying the following major areas of concern:

- ergonomic problems associated with suppliers' delivery methods and packaging of goods;
- equipment servicing and maintenance methods (particularly in isolated areas);
- understanding of dangerous goods Classes 5 and 8 storage;
- pallet racking; and
- awareness of structural requirements and other areas of knowledge transference.

These issues will continue to be addressed and our Intranet site will be used to provide more information on legislation and safety requirements. Management and branch awareness of safety issues is a priority.

Data gathered from accident/incident reports reveal that the majority (37 per cent) occurred at saleyards, 31 per cent in either the merchandise store or yard and 21 per cent were on clients' properties. Eighty per cent of injuries involved bruising, strain/sprain or laceration.

Wesfarmers Federation Insurance regional managers inspect branch offices twice-yearly to identify and minimise risk factors. Health and safety issues, including emergency evacuation procedures, are covered in our audit process.

#### Emergency Response

As mentioned earlier, the Agsafe accreditation programme requires a documented evacuation plan.

#### Risk Assessment

Wesfarmers Landmark maintains a register of buildings known to contain asbestos. External consultants have assessed all locations in South Australia, and some locations in other states and recommendations have been made.

New regulations for asbestos in workplace buildings in Queensland came into effect in November 2000 and apply to premises built or given building approval before 1 January 1990. We have compiled a list of all relevant buildings and plan to carry out inspections as required.

Other locations are self-assessed from year to year and information is gathered via the survey or at other times by reports from staff. Where a problem is identified appropriate investigation is carried out with the aim of addressing the asbestos issue. The last survey, conducted in April 2001, identified Wyalkatchem in Western Australia as a potential problem. A report is being commissioned.

No such assessment has been made of Wesfarmers Federation Insurance premises.

### Employee Wellbeing

Zoonoses diseases can occur among people who work with livestock in certain areas of Australia. We had two reported cases of Leptosporosis - one in northern New South Wales and the other in southern Victoria. We have commenced the first phase of a preventative programme, with particular emphasis on high-risk regions, that aims to have all staff who work in close proximity to cattle and/or in saleyards maintain appropriate vaccination levels. Skin and blood tests are to be carried out and, if there is no reaction within ten days, an inoculation given against the disease. There is no vaccination available in Australia for Leptosporosis for humans, but animals, particularly in the dairy industry, need to be inoculated. Regular articles are published in our internal newsletter covering occupational health and safety issues.

Wesfarmers Federation Insurance refurbished the head office first aid room following a health and safety audit by an external consultant. Extra first aid training was provided for staff likely to be working outside normal hours. Flu vaccinations were offered to all staff at the office which is shared with the Wesfarmers Landmark Western Australia head office.



## Community/Social

### Complaints

The few complaints received from the public covered areas such as proximity to other buildings, chemical odours and noise from delivery vehicles. Most issues were satisfactorily resolved.

### Communication

#### Newsletters and Reports

Many branches distribute regular newsletters on issues covering chemical handling and usage and other associated safety information. Other sites conduct information sessions relating to chemical safety and they promote the "drumMuster" and "Ute it, Don't Boot it" messages.

#### Website

Our Intranet site has an occupational health and safety link. The link covers our Occupational Health and Safety Policy, accident and incident reporting procedures, saleyard induction, other policies and procedures, links to state Work Health sites, St John Ambulance First Aid guide, general guidance notes on manual handling, sun protection and other relevant health and safety issues. We are developing this site further.

General information about the activities of Wesfarmers Landmark and Wesfarmers Federation Insurance is available on our websites at:  
[www.wesfarmerslandmark.com.au](http://www.wesfarmerslandmark.com.au) and  
[www.wfi.com.au](http://www.wfi.com.au).

### Community Support

#### Research

In conjunction with the Australian Primary Superannuation Fund we have supported the production of a video entitled "Health & Safety on the Farm". The video is produced by the Australian Centre for Agricultural Health and Safety as a guide for farm workers.

#### Awards

Two of our branches achieved state Agsafe Excellence Awards for 2001 - Wagga Wagga in New South Wales and McLaren Vale in South Australia - and qualified to enter the National Award for Excellence in Accreditation for 2001. To gain the state awards they had to prove excellence in site layout and design, housekeeping, Agsafe training, commitment to the end user and community, environmental initiatives, occupational health and safety, and emergency planning. The National Award winner will be announced in October 2001.

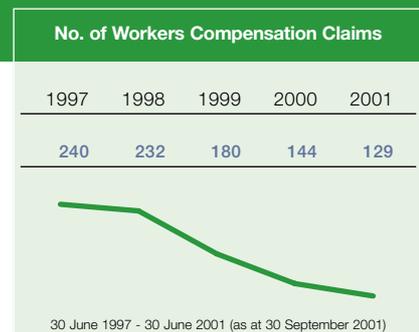
## Priorities for the Future.

- Halve LTIFR at Wesfarmers Landmark and reduce LTIFR to zero at Wesfarmers Federation Insurance
- Promote awareness of safety, health and environmental issues to increase employee wellbeing and ensure legal compliance in both companies
- Continue to progress Agsafe accreditation of all relevant Wesfarmers Landmark branches
- Undertake an ergonomic evaluation of workstations, and appropriate staff training, at the Wesfarmers Federation Insurance head office in Bassendean, Western Australia.

2000 Report Priorities	Outcomes
Continue implementation of ISO 14001.	Mundijong Treatment Plant and Forest Harvesting North and South have achieved certification.
Progress removal of remaining underground oil and fuel tanks.	Priorities have been set, budget allocated and action plan implemented for removal at selected locations.
Submit to the DEP an action plan for rehabilitation of the Pemberton (WA) contaminated site.	Discussions held with new State government. The Environment Minister agreed to engage a second consultant to advise on long-term management options.
Halving of LTIFR to 2.5	LTIFR of 0.7 achieved.

## Making Progress.

Progress continued on implementing our Environmental Management System (EMS) based on ISO14001 with three locations gaining certification. A further three locations are progressing towards certification. Our overall safety record improved significantly on 1999/2000 with a reduction in the Lost Time Injury Frequency Rate (LTIFR) from 5.7 in June 2000 to 0.7. An LTIFR of zero was achieved at 18 of our 19 locations during the year. As foreshadowed last year, the waste burner at Deanmill (WA) was shut down. To reduce the risk of spillage from our Mundijong (WA) treatment plant, the containment dam has been enlarged and lined with impervious material.





## Business Management

### Training

#### Environmental, Health and Safety

The locations currently undergoing EMS implementation have had their team members internally trained and certified to provide them with the necessary skills to identify environmental aspects and impacts and to help them develop environmental management plans.

Work instructions continued to be amended with employees being retrained to the new requirements.

Staff involved in forest harvesting have been accredited by the Department of Conservation and Land Management (CALM) to the *Phytophthora cinnamomi* (dieback disease) hygiene course.

Team leaders continue to undertake the Diploma in Frontline Management. To date, 19 team leaders have completed the course and a further 15 are currently progressing through.

### Compliance

#### Environmental

The Environmental Protection (Controlled Waste) Regulations 2001 came into operation on 1 April. All our locations received a controlled copy of the regulations and we are waiting to hear from the Department of Environmental Protection (DEP) on a submission we made regarding them.

We are a harvesting contractor in state forests to the FPC, and also harvest plantations on private property.

In state forests all harvesting operations are carried out in accordance with the "Code of Practice for Timber Harvesting in Western Australia" and the "Manual of Management Guidelines for Timber Harvesting in Western Australia".

These documents contain guidelines relating to protecting the environment. There are also management guidelines to control the spread of dieback disease in the southwest forests. These procedures are monitored by the FPC and are periodically updated. The Codes have been referenced in our EMS. We are the only forest/plantation harvesting contractor in Western Australia to have achieved ISO 14001 certification.

In private plantations, harvesting is carried out in accordance with the Code of Practice for Timber Plantations in Western Australia.

We operate a plant at Mundijong, 45 kilometres south east of Perth, which uses a CCA (copper, chrome and arsenic) treatment process to preserve timber. The main products from this operation are treated pine rounds used in fencing, vineyard establishment and other applications.

The preservation process involves dried timber undergoing a pressure vacuum treatment using the CCA solution. Once treated, the timber is stacked on a concrete pad to facilitate fixation. This process results in the CCA becoming chemically bound in the timber. Any excess solution is captured and recycled.

The treatment storage tanks are banded. This process is undertaken in accordance with our management procedures which conform to ISO 9002 and ISO 14001.

#### National Pollutant Inventory (NPI)

Our facilities at Yarloop, Deanmill, and Collie sawmills, Mundijong treatment plant, and the Manjimup Processing Centre (MPC) have reported under the federal NPI legislation.

The emission results for 1999/2000 are now on the NPI Internet site.

#### Licensing and Approvals

To meet our legal obligation with respect to environmental licensing we hold two DEP licences, nine Department of Minerals and Energy (DME) licences, two Water and Rivers Commission (WRC) licences and 23 Australian Communication Authority (ACA) licences. In addition we have one registration with the DEP, a permit from the Health Department, and two Works Approvals from the DEP (Mundijong).

WorkSafe Western Australia issued two Improvement Notices during 2000/2001. One is being appealed and the other has been resolved. Other departmental licensing authorities have not issued any notices of non-conformance.

### Management Systems

#### Integrated Management System

The EMS continues to be integrated with our existing Quality Management System (ISO 9002).

#### Environmental Management System (EMS)

Implementation of a company-wide EMS continued during 2000/2001 with Mundijong Roundwood Processing and Timber Preservation Centre and Forest Harvesting Operations, North and South, achieving ISO 14001 certification. This EMS is compatible with the requirements of the

international standard and contains full documentation of our activities that may impact on the environment, while providing a baseline for continued performance improvement.

The next stage of implementation of the EMS is focussed at MPC, Deanmill, Yarloop sawmill and the associated veneer plant. To gain initial certification to ISO 14001, an independent organisation, NATA Certification Services International (NCSI) will carry out environmental audits at these locations during 2001/2002.

#### Other Management Systems

Western Australia's publicly-owned forests are managed by the Western Australian Government's Department of Conservation (formally Department of Conservation and Land Management – CALM). It administers the Government's Forest Management Plan, which runs until the end of 2003.

The Coalition Government announced in September 2000 that a new body, the Forest Products Commission (FPC) would be set up to administer the commercial arrangements between the Government and forest products companies.

The Department of Conservation works closely with the FPC to ensure all activities in the West Australian state forests and timber reserves are consistent with the protection of community, nature, conservation, recreation, cultural, catchment and physical values.

The FPC has achieved certification for its operations under ISO 14001.



**Chad Van Kleef, Operator, working at our Processing Centre in Welshpool, Western Australia.**

To define the standard for sustainable forest management, the Federal and State governments, in liaison with industry and community representatives, are developing an Australian Forestry Standard, which will establish defined criteria for the ecologically sustainable management of Australia's forests. This Standard will be designed so as to enable a third party auditing process to be undertaken to verify compliance. The aim is to have this standard recognised internationally.

With the election of the Gallop Labor government in February 2001, a policy to ban all logging in old growth forests was implemented. The government also made a commitment to industry to honour all existing supply contracts until their expiry in December 2003. This will result in a significant reduction in log supply from 2004. We estimate our log supply from the government could be approximately 60 per cent less in 2004 than at present.

In May 2001 we submitted a proposal to the government to progressively reduce our purchase of logs over the two and a half years to December 2003 and restructure our business over this period to the new post-2003 levels. This restructure will unfortunately result in significant redundancies with more than 400 jobs likely to be lost. One of the main aims of the proposal is to phase in these job losses rather than have them all occur at the one time in 2004. The proposal also envisages increased utilisation of wood fibre and, in cooperation with the furniture industry, the manufacture of greater volumes of higher value-added products from the resource available. The Government is currently considering our proposal as part of the overall future structure of the industry.

**Warren Jary, Kiln Operator, separating a jumbo strip lift using pneumatic air bags to stack the timber more efficiently and safely.**



## Environmental

### Air (Atmospheric Emissions)

#### Noise/Dust/Smoke

Noise and dust are issues at our four hardwood sawmills and two processing centres and are carefully managed.

Despite completion of remedial work, a further complaint has been lodged about noise, smoke and dust emanating from the Yarloop sawmill. This complaint is being investigated and discussed with the DEP.

The DEP wrote to Sotico asking for a reduction to smoke emissions from the waste pit at our Pemberton sawmill. We are now conforming to the recommendation from the department.

#### Greenhouse Emissions

Greenhouse emissions from non-renewable energy resources were estimated at 40,830 tonnes of carbon dioxide equivalents.

### Water

#### Groundwater

Several sites have approval to use groundwater from either dams or bores. Groundwater is also used to top up recycling reservoirs.

#### Reuse

Collie and Yarloop sawmills and the Mundijong treatment plant recycle water from their respective holding reservoirs.

#### Discharges to Surface and Groundwater

Our Mundijong treatment plant, the Manjimup Processing Centre (MPC), and the Yarloop and Deanmill sawmills continue to take water samples annually. These samples are analysed by NATA-accredited laboratories. The DEP continues to receive an annual report on water sampling results from the MPC site.

At Mundijong, normal stormwater flow from treated timber storage areas is collected in a containment dam which has been enlarged and lined with an impervious material to increase its effectiveness and reduce the risk of spillage to the broader environment. Samples of this water are tested before release.

The test results are reported to the DEP.



**Forklift operator stacking strip lifts of sawn jarrah at Welshpool.**

### Waste

Action plans have been developed with a focus on those locations undergoing ISO 14001 certification. We anticipate in 2002 further reducing the amount of waste disposed of in the Yarloop sawmill burner.

#### Solid Waste

Bark removed from logs at our hardwood sawmills and sawdust continue to be sold to various customers for use as garden mulch and potting mix. Most sawdust produced from Collie and Yarloop is sold. Bark and sawdust that is not currently sold is burnt or stockpiled. Bark from our Deanmill site is being sold to a southwest horticulturalist for use on avocado orchards.

Bark and pine shavings from our Mundijong plant are sold to garden supply companies.

We are still awaiting a response from the recipients of five containers of bark, sawdust and other fines which were shipped to the USA as part of ongoing investigations into the potential use of waste fibre in the generation of power in the State's southwest.

Jarrah residues are sold to Simcoa Operations Pty Ltd at Kemmerton, near Bunbury, Western Australia, to make charcoal for use in the production of silicon.

With the sale of our pulpwood operations in October 2000, we are no longer involved in the production and export of woodchips. Residues from our Pemberton karri sawmill are sold to the new operator of the Diamond woodchip mill.

At some locations, waste paper, plastics, cardboard and metals are removed by licensed waste contractors. Where there is no disposal service suitable products are burnt, with metal strapping and plastics sent to local authority landfill sites.

#### Recycling

Used vehicle tyres and waste oil are recycled. Tyres changed on site are removed by the supplier, used oil is stored and removed by contractors.

## Land

### Contamination

Part of our Pemberton sawmill site is contaminated with arsenic, chromium and pentachlorophenol resulting from timber treatment activities carried out, primarily, by previous owners, one of which was the government of Western Australia. While we have made very little contribution to the contamination, we accept the need to contribute to the restoration of the site to an environmentally acceptable standard.

The extent of the contamination has been monitored, and a consultants report received. Discussions have been held with the new state government and the Minister for the Environment has given her approval to our proposal to obtain a second consultants report on how best to remediate the site. A detailed action plan for the rehabilitation of the site will be submitted to the DEP following receipt of that report.

During 2000/2001 a small portion (0.8mg/l) of hexavalent chromium was detected in water samples taken from the Mundijong treatment plant containment dam. The DEP was immediately notified and improvements were implemented to reduce the risk exposure of contaminants leaving the site. The contaminant that was trapped in the existing dam was treated, retested and confirmed to be below the acceptable limit before the water was discharged. This operation was approved by the DEP and now forms the basis of a clause in the environmental licence for Mundijong.

### Resource Use

During the year we used 183,931 litres of petrol, 3,259,782 litres of diesel, 289,759 litres of liquefied petroleum gas (LP Gas) and 29,526,069 kilowatt hours of electricity. Raw material delivered for usage from state forests amounted to 334,283 tonnes.



## Safety and Health

### Lost Time

The Lost Time Injury Frequency Rate (LTIFR) for the year was 0.7. Only one lost time injury occurred. This safety performance set a new record, as it was the first time we have ever recorded an LTIFR below one within a financial year.

### Workers Compensation

Workers compensation claims continue to be a focus of management. One hundred and twenty nine claims were received during the year compared with 144 the previous year. At the end of the reporting period, 51 claims were active as against 71 in 1999/2000.

### Hazard and Risk

#### Programmes

During 2000/2001 we introduced a drug and alcohol programme, initially at the Yarloop sawmill site. This programme is also to be implemented at our Welshpool head office and MPC and we aim to have it applied at all our locations. Indications from management and employees have been supportive of this initiative.

#### Materials Handling and Storage

Training in manual handling techniques was conducted during the year and audits of the stacking and de-stacking work instruction continued.

#### Emergency Response

Each location has an Emergency Preparedness and Response Plan. The locations currently working towards certification to ISO 14001 continue to upgrade their plans to meet these requirements.

## Employee Wellbeing

An employee opinion survey was conducted in May 2001. The results have been compiled for distribution during August/September. Improvement opportunities identified in the survey will be progressed over the next financial year and results will be provided to all employees in 2001/2002.



## Community/Social

### Communication

#### Website

Our website, located at [www.sotico.com.au](http://www.sotico.com.au), provides comprehensive information on our company and its business units. It displays our range of hardwoods, presents technical information and delivers comprehensive environmental information.

This highlights our Environmental Policy statement, our progress in adopting ISO 14001 certification and information on the Australian Forestry Standard. It recommends other websites to visit with regard to forest management and the benefits of timber and includes a frequently-asked-questions section.

The website also includes a news section, which provides up-to-date information on our company and the industry.

## Priorities for the Future.

- Continue implementation of ISO 14001
- Progress removal of remaining underground oil and fuel tanks
- After receipt of new report, finalise action plan for rehabilitation of the Pemberton contaminated site
- Aim for zero LTIFR

# Verification Statement



ABN: 47 065 475 149  
ACN: 065 475 149

SMEC Australia Pty Ltd  
Level 5, 12 St George's Terrace, Perth WA 6000  
Telephone: (08) 9221 5900 Facsimile: (08) 9221 5901

## Verification Objective

Wesfarmers Limited (Wesfarmers) commissioned Snowy Mountains Engineering Corporation (SMEC) to verify the data and content of this Annual Environment, Safety and Health Report 2000/2001 (the report), their fourth environment, safety and health report. The objective was to assess the accuracy of data and statements made within the report.

Wesfarmers holds the responsibility for the preparation of the report and this Verification Statement represents SMEC's independent opinion. SMEC did not prepare any part of this report.

## Verification Method

The accuracy of the report was verified by checking randomly sampled information presented within the report. SMEC was commissioned:

- to review the report for any major anomalies;
- to examine Wesfarmers' monitoring and reporting procedures, background documentation and data collection procedures; and
- to execute an audit trail of selected data streams to determine the accuracy in the collection, transcription and aggregation processes.

The verification process involved meetings and discussions with personnel responsible for collating and writing the reports for the different business units. All reporting business units were visited in order to ensure selected claims were discussed and substantiated, except for Premier Coal in Collie, Western Australia and Curragh Queensland Mining in the Bowen Basin.

The Premier Coal audit was conducted with the principal author at Wesfarmers' offices in Perth. A desktop review was conducted for the Curragh audit, with follow-up telephone interviews and correspondence. The Wesfarmers Landmark/Wesfarmers Federation Insurance audit was conducted in Melbourne by SMEC Victoria.

## Opinion

The data verification process involved assessing the accuracy of the data contained within the report through a broad review of randomly selected data sets, focussing on data collection, transcription and aggregation processes. The data verification process has identified the following:

- a high level of accuracy in data presented within the report. However, there were a small number of anomalies that were attributed to human transcription errors or misinterpretation of data during the report writing stage; and
- each of the data trails selected was generally identifiable and traceable. The personnel responsible for data collection and reporting demonstrated reliably the origins, aggregation trails and transcription processes of data.

Overall, SMEC is satisfied that:

- the report is a fair and honest representation of the organisation's policies, management systems and performance;
- the numerical data in the report is valid and accurate; and
- the written statements made in the report are an accurate reflection of the results and progress achieved during the reporting period.

## General Findings and Recommendations

The following recommendations are made as a result of the verification process:

- Wesfarmers continues to move towards best practice for a consistent and systematic approach to performance measurement and reporting across all of their business units. However, consistency in reportable items between business units could be improved. The continued implementation of the five-year improvement plan developed by SMEC in 2000/2001 will assist in this regard;

- stretched resources during heightened business activity, has affected both the timeliness of the report and the effectiveness of internal review processes. Continued implementation of formalised measurement and reporting systems will further ensure improvement in data transcription and aggregation processes in a timely manner; and
- Wesfarmers maintained best practice in reporting in relation to continuous involvement of operations personnel across the organisation throughout the reporting process, demonstrating greater ownership and investment by each of the business unit authors. This is particularly commendable in light of the recent mergers.

The above findings represent a summary of a more detailed report presented to Wesfarmers.

For SMEC Perth,

**Tanya Astbury**  
Environmental Engineer and Auditor  
BEng (Hons), BComm, GradIEAust

For SMEC Victoria,

**Anne Bignell**  
Manager, Environmental Services  
Senior Environmental Auditor (QSA)

17 January 2002

# Glossary

<b>Australian Competition and Consumer Commission (ACCC)</b>	The Federal Government's independent competition policy and consumer protection watchdog.
<b>Australian Standards (AS)</b>	National benchmarks for products and services.
<b>Gigajoule</b>	Unit of energy equivalent to 1,000,000,000 joules.
<b>Greenhouse Gases</b>	Gases such as carbon dioxide, methane and nitrous oxide which contribute to retention of heat in the earth's lower atmosphere.
<b>Greenhouse Challenge</b>	The Federal Government's programme of cooperation between industry and government to reduce greenhouse gas emissions through voluntary action.
<b>International Organisation for Standardisation (ISO)</b>	ISO publishes internationally-agreed standards covering areas such as quality management (the ISO 9000 series) and environmental management (ISO 14000).
<b>Landcare</b>	A national network of community groups tackling land-related environmental issues.
<b>Liquefied Petroleum Gas (LP Gas)</b>	A combination of, predominantly, propane and butane extracted from natural gas or as a by-product of petroleum refining.
<b>Liquefied Natural Gas (LNG)</b>	Comprising predominantly methane, it is produced from natural gas that has been purified, refrigerated and condensed to liquid form.
<b>Lost Time Injury (LTI)</b>	An LTI is any work injury which causes absence for one day or a shift or more.
<b>Lost Time Injury Frequency Rate (LTIFR)</b>	The main calculation we use to measure workplace safety performance. It is calculated by dividing the number of LTIs by total hours worked, multiplied by one million. Unless otherwise indicated, LTIFRs in this report do not include contractors. Another indicator, Average Time Lost Rate (ATLR), provides a measure of the severity of occurrences.
<b>National Packaging Covenant</b>	An agreement between the packaging supply chain industry and governments which sets guidelines covering the manufacture, supply, distribution, consumption and recovery/recycling of post-consumer packaging.
<b>National Pollutant Inventory (NPI)</b>	An Internet database designed to provide the community, industry and government with information on the types and amounts of certain chemicals being emitted to the environment.
<b>WorkSafe Western Australia</b>	The Western Australian Government department that administers workplace safety and health laws.



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# how can we improve this report?

Our goal is to continually improve the way we report on our environmental, health and safety performance.

Your comments on our efforts are important so please take the time to give us your feedback.

*After completing the reply-paid form below, tear along the perforations and place in the mail. Please do not mark the blank area on the right of the form.*

## Wesfarmers feedback

Yes   Generally   No

Did this report meet your **information needs**?

Did you find the report to be **transparent and open**?

Did you find the information **easy to understand**?

Did you find the **information useful**?

Poor   Good   Excellent

How would you rate our **environmental performance**?

How would you rate our **health & safety performance**?

Less favourable   Same   More favourable

How has this report **changed your opinion**:

• of our environmental practices?

• of our health and safety practices?

**General comments** you would like to make about this report.

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What is your interest in this report?

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|---|---|
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