



**PRIMARY INDUSTRIES
AND RESOURCES SA**

ANNUAL REPORT 1998-99



**Government
of South Australia**

VISION

Primary Industries and Resources South Australia (PIRSA) delivering prosperity for South Australians by accelerating responsible and sustainable growth.

BUSINESS

Working in partnership with people, industry and Government to provide integrated services in:

- industry development
- natural resources management
- policy advice and support

to make the right sustainable economic development decisions for the benefit of the South Australian community.

VALUES

In achieving its outcomes, PIRSA is an organisation that values:

- people
- commitment
- integrity
- empowerment and accountability
- innovation
- collaboration
- customer service
- achievement

OUTCOMES

PIRSA will deliver these outcomes for South Australia:

- improved return from our existing industry profile
- increased investment and expanded industry base with a wider variety of markets and products for the primary industry and resource sectors
- responsible and sustainable development and resource management
- rural communities' prosperity and adaptability
- effective and efficient use of public funds

ISSN 1440-978X

Edited by J.E. Hibburt and J.F. Drexel

Design and graphics by Publications Services, PIRSA

Printed by Concord Printing Pty Ltd

Printed December 1999



Hon Rob Kerin MP
Deputy Premier
Minister for Primary Industries, Natural Resources
and Regional Development

Dear Minister,

I am pleased to present to you PIRSA's annual report for the year ended 30 June 1999. The report has been prepared under section 66 of the *Public Sector Management Act 1995* and is in accordance with the Act's accompanying regulations as well as the financial reporting requirements of the *Public Finance and Audit Act 1987*.

Dennis Mutton
Chief Executive
Primary Industries and Resources South Australia

30 September 1999

For copies of this document please contact:
Customer Services
Primary Industries and Resources South Australia
101 Grenfell St, Adelaide
GPO Box 1671, Adelaide SA 5001
Phone (08) 8463 3000
Fax (08) 8204 1880



Vision, business, values, outcomes	inside front cover
Letter of transmittal	1
Chief Executive's overview	2
Highlights	4
The year ahead	6
Corporate outputs	8
Performance review	
Agricultural industries	10
Fisheries and aquaculture	18
Research and development	21
Sustainable resources	25
Mineral resources	29
Petroleum	35
Energy	40
Industry development	44
Rural communities	46
Agency support	47
Appendixes	
1 Organisation	53
2 Ministerial responsibilities	54
3 Workforce statistics	56
4 Occupational health, safety and welfare statistics	57
5 Consultancies	58
6 Account payment performance and contractual arrangements	59
7 Year 2000 compliance	60
8 Overseas travel	61
9 Freedom of Information Statement	65
10 Financial statements	66
11 Abbreviations	96
Index	97
Contacts	inside back cover



CHIEF EXECUTIVE'S OVERVIEW

The past financial year has been a period of consolidation for PIRSA, with the agency further positioning itself as a key economic development agency within the South Australian Government, supporting industries with a total value in excess of \$7 billion.

PIRSA Rural Solutions, launched on 30 June 1998, has now established itself as the key business unit within PIRSA, providing specialised consultancy services in agriculture, agribusiness and natural resource management. Operating out of 25 country service centres, it brings together the combined expertise of over 200 specialists, consultants and advisers and is focused on building expert teams to address challenges and opportunities for rural industries and communities.

South Australia's horticulture industries continue to experience strong growth, with expansion in the wine, almond, olive, fresh stone fruit, apple, cherry and vegetable sectors. The State's wine exports increased by 22% in 1998-99, achieving nearly \$630 million at free on board prices. The State is the largest wine producer by volume in Australia and the highest by value of exports. The Industry Development Boards have continued to support major initiatives to develop alliances and improved communications between producers and consumers. The State's Animal Health Program is being upgraded with a \$1.2 million restructure over the next three years. The Government has entered into funding partnerships with both the sheep and cattle industries to minimise the impact of Johne's disease and improve the State's trading position. Similarly, it has embarked on an extensive program to protect the State's multi-billion dollar agricultural industries against menacing grasshopper plagues.

The Farmed Seafood Initiative has produced outstanding results. The State's aquaculture production more than doubled in 1997-98, achieving nearly \$100 million at South Australian wholesale market prices, and has continued to grow. The State is now the second largest producer by volume in Australia and the second highest by value of product. In addition, South Australia is now internationally recognised for its abalone and tuna aquaculture industries. The rise in production value is largely in response to development of the tuna industry. The annual value of South Australia's

commercial fisheries is now over \$200 million and the industry continues to provide impressive growth in value of product while maintaining long-term sustainability.

New research and development initiatives in the areas of biotechnology, marine habitat and biodiversity, and aquaculture are leading to gains in the primary production sector. The Government has recognised the need for its research centres to have the capability to provide world-class research outcomes. Developments include an Integrated Livestock Management Initiative at Roseworthy, a fish broodstock research hatchery at West Beach and a Plant and Food Biotechnology Centre at Waite. It is expected that biotechnology alone will generate another \$200 million in export income for the grains industry within 10 years.

During the year the Premier established the Resources Task Force to prepare a five-year strategic plan and advise on ways to develop further opportunities in exploration, mining, processing and allied businesses. Examples of the confidence shown by industry in the South Australian resources sector include WMC's \$1.94 billion expansion of the Olympic Dam Mine and processing facilities; the award of mining tenements over the Beverley uranium deposit to Heathgate Resources; the corporatisation of the South Australian Steel and Energy Project; and major investment projects which are under way by BHP at the Whyalla steelworks (\$83 million) and Pasmenco at the Port Pirie smelter (\$76 million). Despite low commodity prices and consequent low exploration levels, activity is increasing in some areas; in the Curnamona Province exploration expenditure increased by 60% in 1998.

The four-year Targeted Exploration Initiative South Australia (TEISA) has been under way for one year. Aerial geophysical surveys have been completed over five areas returning data that are stunning in resolution and, as a consequence, mineral prospectivity has been significantly enhanced. The importance of such initiatives are highlighted by the forthcoming sinking of a shaft at the Challenger gold deposit in the Gawler Craton. Challenger was one of several discoveries made in 1995 following expenditure in this region of \$11.5 million by

Government and industry as part of the South Australian Exploration Initiative.

In the petroleum sector, a new era of exploration commenced in the Cooper Basin with expiry of exploration areas previously held by Santos. The 41 bids for the first round offering of 11 blocks were very encouraging for future exploration levels. Eight areas were also released for exploration in the Bight and Duntroon Basins in the Great Australian Bight region. Successful drilling in the Otway Basin in the South-East during 1998–99 has led to the construction of an 80 megawatt gas-fired power station, providing an economic boost for the region.

There have been many other achievements throughout the year such as the award for PIRSA's internationally recognised aquifer storage and recovery projects, the establishment of a Food and Beverage Exporters Association as a Food for the Future initiative, facilitation of a major magnesium processing opportunity, improved service delivery to rural communities, energy campaigns and contributions to the National Greenhouse Strategy.

PIRSA's Rural Communities Office, including Ruralink programs, was incorporated into the new Office of Regional Development on 30 June 1999, following the recommendations of the Premier's Regional Development Task Force.

The PIRSA Women's Development Group finalised a report on six projects designed to enhance human resource management in the organisation. The report was a milestone in the development of PIRSA and demonstrates the agency's maturity and openness.

This annual report clearly demonstrates the breadth and effectiveness of the agency's activities and is testimony to the efforts of staff in embracing change and striving for excellence in their service to customers.

In looking back over the year it is clear that PIRSA staff have worked hard to establish an agency that is responsive, helpful, positive and constructive in its relations with major stakeholders and the community generally. I express my appreciation to them for their commitment and support in meeting the agency's goals and strategic objectives.



Dennis Mutton
Chief Executive
Primary Industries and Resources South Australia



PIRSA highlights for 1998–99 are provided below, together with a page reference to their further discussion.

Agricultural industries

- *Seasons of change*, an information kit for potential investors in the wine grape industry, was published. (p. 10)
- Active support for beef feedlotting development in South Australia continued; feedlot capacity has shown strong growth. (p. 11)
- PIRSA's assistance to the South Australian Dairy Effluent Scheme was completed. (p. 11)
- A trial has indicated that lemon production is financially viable in the South-East. (p. 11)
- The national olive variety assessment project was established to evaluate more than 100 varieties. (p. 12)
- Pyrethrum was successfully piloted as a new crop in the South-East. (p. 12)
- South Australia has been declared free of fire blight disease. (p. 13)
- A broadacre grasshopper eradication program undertaken in the Upper North pastoral and farming districts is estimated to have prevented \$26 million of damage to crops and pastures. (p. 13)
- The South Australian Meat Industry Awards for Excellence were initiated. (p. 14)

Fisheries and aquaculture

- PIRSA coordinated the national response to a major pilchard kill in October. (p. 19)
- The agency facilitated the development of 120 traineeships in the aquaculture industry. (p. 20)

Research and development

- A reference for management of the State's marine habitat was published — *Conserving South Australia's marine biodiversity*. (p. 21)
- A new version of a livestock feed database was compiled with agribusiness and participating national research and development agencies. (p. 22)

- A DNA test of chickpea seed was delivered commercially. (p. 22)
- A slow-release vitamin B12 supplement for sheep was developed and commercialised with a pharmaceutical company. (p. 24)
- New export access for pork to Asian markets was facilitated. (p. 24)
- PIRSA facilitated planning and development of a Plant and Food Biotechnology Centre. (p. 24)

Sustainable resources

- PIRSA won the 1999 Australian Water and Waste Water Association Environment Merit Award for its aquifer storage and recovery projects. (p. 25)
- Five major Natural Heritage Trust (NHT) projects were initiated. A purpose-built database has improved efficiency in managing NHT applications and this system is being marketed nationally. An evaluation strategy has been implemented to improve the effectiveness of NHT projects. (pp. 26, 27)
- A regulatory framework for integrated natural resources allocation and management, which supports economic development of primary industries and resources, is being prepared. (p. 27)
- Several projects to improve irrigation infrastructure and control salinity were carried out. (p. 27)

Mineral resources

- TEISA, a \$23.2 million, four-year exploration initiative, was officially launched at the Resources Week '98 Conference in December. The money will be spent over the years 1998–2002 on a phased, regional exploration strategy for minerals, petroleum and groundwater aimed at accelerating resource exploration. (pp. 29, 30)
- PIRSA acted as the lead agency in coordinating the many interactions between the Government and WMC Resources, which led to the opening of the \$1.94 billion expansion of the Olympic Dam Mine and processing facilities in March. (p. 31)
- PIRSA granted mining tenements for the Beverley uranium deposit following a process of

exhaustive environmental impact assessment. (p. 32)

- The *Statutes Amendment (Mining Administration) Act 1999* was enacted on 1 April 1999. (p. 33)
- The South Australian Steel and Energy Project was significantly progressed by changing its status from a joint venture to that of a company, enabling an improved environment for strategic business investment. (p. 34)
- The economic significance of Penrice's salt operations were recognised with the execution of a Crown Agreement and the State's first Special Mining Enterprise Agreement. (p. 34)

Petroleum

- As a result of PIRSA's promotion of Cooper Basin petroleum exploration opportunities, 41 applications for 11 blocks were received, with a total investment of \$45 million over the next five years. (pp. 35–36)
- A bill to replace the *Petroleum Act 1940* was completed and includes provisions for geothermal energy. (p. 39)

Energy

- Energy saving campaigns were run to reduce peak demands on the electricity system. (p. 40)
- The number of complaints about vegetation clearance around powerlines was reduced because of better liaison. Proposed changes to the vegetation clearance regulations were prepared. (p. 41)
- A draft government-wide energy policy framework was circulated for comment. (p. 41)
- South Australia was the first to achieve national certification for its gas access regime: this State's application is being used as a template by other jurisdictions. (p. 42)
- PIRSA organised a sustainable energy conference and associated study of the impact of greenhouse targets on the State's economy. (pp. 42–43)
- PIRSA contributed to national programs under the National Greenhouse Strategy. (p. 43)

Industry development

- SA Food Online, showcasing the State's food industry, was launched. PIRSA received an award for the technology which underpins it. (p. 44)
- Five working committees were established under the Premier's Food for the Future Council. (p. 44)
- The inaugural Premier's Food and Fabric Awards were successfully presented. (p. 44)
- A Food and Beverage Exporters Association was established. (p. 44)

- The agency facilitated a major magnesium processing opportunity. (p. 45)
- A Gawler Craton Infrastructure Advance Planning Study was released. (p. 45)
- PIRSA coordinated the Deputy Premier's HOFEX '99 Market Awareness Mission to Hong Kong. (p. 45)

Rural communities

- The South Australian Rural Communities Office was incorporated into the new Office of Regional Development. (p. 46)
- Six government service centres were established in rural areas. (p. 46)
- Two inaugural courses focusing on leadership were organised. (p. 46)

Agency support

- An electronic geoscientific library was introduced. (p. 47)
- The Centre for Minerals and Petroleum was opened. (pp. 47–48)
- The agency's disposal schedules for records were the first to be approved by the new State Records Council. (p. 48)
- An action plan is being implemented to ensure the agency's capability to respond to emergencies. (p. 48)
- The South Australian FarmBis program was launched. (p. 49)
- PIRSA reviewed and re-issued its corporate strategic plan for 1999–2001. (p. 50)
- 'Improving PIRSA', a corporate initiative for continuous improvement, was established. (p. 50)
- The final report of the Women's Development Group was released. (pp. 50–51)
- A Level 3 WorkCover Performance Standard rating was achieved across PIRSA. (p. 51)
- A Financial Management Systems Project Team was established to implement an improved financial system. (p. 51)
- A desktop and network standard operating environment is being implemented across the agency. (p. 52)
- A computer support system is being developed to assist the agency in managing projects and reporting against strategic objectives. (p. 52)



THE YEAR AHEAD

PIRSA's business efforts and services are focused on four areas (output classes). Information services, output class 1, focuses on generation, synthesis and dissemination of information and technology. In 1999–2000, a diagnostic service centre will be established at the Waite precinct offering a range of services including identification of plant pathogens and insects, and tests for rye grass toxicity, and seed and root diseases. Public accessibility to resource data and interpretive systems, used in environmental management, will be improved. A land condition monitoring program will be established for agricultural areas. Opportunities in the Cooper Basin, for the second and third round petroleum acreage releases, will continue to be promoted with the aim of facilitating the achievement of about 30 licences in place by October 2000. Marketing of acreage in the Bight and Duntroon Basins will continue including publication of *The petroleum geology of South Australia, vol. 5: Bight and Duntroon Basins*.

There will be a number of innovations in research and development. Major research and training programs have commenced to expand crop production in low and high rainfall regions, aiming to bring 150 000 extra hectares into production over the next four years. The Farmed Seafood Initiative, which includes funding for the building of a fish research hatchery and broodstock conditioning facility at West Beach, will be completed. New strains of Pacific Oysters and King George Whiting will be developed and scallop farming initiated. Collaborative research on snails with the University of Adelaide and Commonwealth Scientific and Industrial Research Organisation (CSIRO) will focus on control options for best practice management. The agency will lead several viticulture projects and have a key role in two programs of the Cooperative Research Centre for Viticulture. A joint initiative with the University of Adelaide and TAFE SA, the Integrated Livestock Management Alliance, will undertake a systems approach to industry problems. The Land Technologies Alliance with CSIRO and the University of Adelaide will be progressed. Groundwater investigative work will concentrate on the Northern Adelaide Plains and Willunga areas. Year 2 of TEISA will see a wide range of geoscientific studies being undertaken, including several drilling projects in the Gawler Craton,

airborne surveys as part of the Musgrave program, trialing leading-edge geophysical prospecting techniques and the development of new databases and geological maps.

Output class 2 focuses on State resource regulation services required to support responsible and sustainable development. In the year ahead, the major recommendations of the Animal Health Review will be implemented; a second program will be run for control of plague grasshoppers; protection will be given from the threat of Mediterranean fruit fly; industry will be assisted with the adoption of a plan for control of bovine Johne's disease; South Australian sheep will be surveyed to determine prevalence of ovine Johne's disease; and PIRSA aims to achieve a state-wide declared free status for Enzootic Bovine Leucosis. A five-year plan for the introduction of the national livestock identification system will be implemented. Management plans will be developed and implemented for the blue crab, marine scalefish, beach cast seagrass, pilchard and king crab fisheries. Local governments will be assisted with the adoption of a land use planning system based on ecologically sustainable development. A one-stop shop irrigation development, consultation and approval process will be implemented. Pest control strategies will be developed including rabbits in agricultural areas, pest birds in horticultural crops and algal and dinoflagellate blooms. Horehound and broomrape eradication programs will be carried out. PIRSA will try to resolve all outstanding petroleum production licence applications resulting from the expiry, in February 1998, of Petroleum Exploration Licences 5 and 6 in the Cooper Basin.

Support services to Government, output class 3, involves a range of specific initiatives, support of boards and other consultative and advisory mechanisms. The Industry Development Board for Meat will be assisted to implement a national, consumer-orientated beef grading system. The Industry Development Board for Field Crops will encourage farmers to adopt known technology and research and development. PIRSA will jointly manage the marine and estuarine strategy. A new dryland salinity strategy will be developed. Legislative review will continue to be a priority in 1999–2000, with a focus on ensuring legislation

conforms with national competition policy principles and promotes a competitive business environment. The Petroleum Bill 1999 and Regulations, and Electrical Products Bill will be proclaimed. Assistance will be given to finalise a determination for access to gas distribution pipelines in South Australia. PIRSA will continue to act as lead agency for government irrigation and drainage infrastructure projects including the Lower Murray, Riverland, South-East and Eyre Peninsula areas. The agency will continue to administer the Rural Adjustment Scheme.

Facilitation services, output class 4, includes services in facilitation planning, trade and market, and training and education. Support of the Premier's Food for the Future initiative will be a priority in 1999–2000, with PIRSA and the Department of Industry and Trade working in partnership. The fruit, vegetable and ornamental industries will be assisted to strengthen market development and skilling arenas, with strong emphasis on leveraging FarmBis funding. Better Profits, a new program aimed at showing farmers how to increase their profits, will be trialed. Development of the deer industry will be supported through the Deer Advisory Group. The Southern Australian Meat Alliance Business Plan will be implemented to coordinate supply of lamb and beef products. Large quantities of wools, of required specifications, will be marketed directly to processors under Wool Marketing 2000. The agency will be involved in the finalisation of the restructure of the marine scalefish fishery, aimed at increasing the sectors' profitability. National environmental accreditation for the fishing industry will be evaluated and fishers will continue to be assisted to access lucrative export markets. Cost-sharing of investment for NHT on-ground works will be developed. Irrigation production and development will be supported including promotion of training courses and benchmarking tools. The property management planning project will be updated to be more flexible and broader-based. Ruralink programs will be maintained. Sustainable energy programs will be implemented to meet the State's commitments under the National Greenhouse Strategy. A whole-of-government energy management policy and implementation plan will be prepared.

Several initiatives will be progressed to improve performance across the agency, including the ability to respond to emergencies, human resource management, improving performance management, and a project management information system.



CORPORATE OUTPUTS

Agency outcomes drive the services and projects planned and executed by PIRSA groups. This is achieved through the key business focus which identifies the agency's service types and business emphasis and guides the definition of outputs as seen from an external customer perspective. Over the next three years PIRSA will focus on four output classes.

Output class 1: information services

The focus is on services for generation, synthesis and dissemination of information and technology. Outputs are:

- 1.1 *Data and information products and services* — the provision of information services including publications and electronic information and products, training and consulting services, and services based on data held and synthesised into information products.
- 1.2 *Research and scientific services* — the generation of new technologies through research and development, review and synthesis of information, dissemination of research results and provision of diagnostic and geoscientific services.

Output class 2: State resource regulation services

This includes services that are required to regulate the use of and protect the State's natural and productive resources. These services are the responsibility of PIRSA through either legislative responsibilities or Cabinet policy. Outputs are:

- 2.1 *Resource regulation planning services* — the provision of planning assistance and advice to customers, and coordination of the development of plans and strategies to meet statutory and other policy requirements.
- 2.2 *Licensing services* — services related to the issuing of licences.
- 2.3 *Compliance services* — product inspection, certification, investigation and surveillance, and enforcement and prosecution services.
- 2.4 *Incident response services* — detection and response to adverse events and emergencies.

Output class 3: support services to Government

The focus is on policy advice, decision support, legislation development and review, and portfolio project management which covers all primary industry and resource sectors and other services to Government. Outputs are:

- 3.1 *Policy, advice and support services* — all policy advice and development for and on behalf of the Government, responses to government questions, briefings, speech notes, decision support, and other support as determined. Also included is representation of the Government on State and national groups.
- 3.2 *Legislation development and review services* — development, monitoring and review of legislation, and legal advice.
- 3.3 *Portfolio program management services* — the management of programs within the Minister's portfolio by PIRSA where it is a lead agency for Government.
- 3.4 *Infrastructure project services* — project management of infrastructure projects within the Minister's portfolio by PIRSA where it is a lead agency for Government.

Output class 4: facilitation services

This includes services that establish strategic alliances and strategies in the areas of wealth, health, welfare, safety, sustainability or self-reliance of industries, enterprises or communities. Outputs are:

- 4.1 *Facilitation planning services* — the provision of planning assistance and advice, development of strategic plans and long-term strategies including infrastructure, industry development, and planning for rural community access to services.
- 4.2 *Trade and market services* — services that develop, maintain or improve access for industries to interstate and international markets through business and trade alliances.
- 4.3 *Training and education services* — services related to working with communities and groups to develop their human capital and self reliance.

The table below links outputs with outcomes.

Output class 1 Information services	Output class 2 State resource regulation services	Output class 3 Support services to Government	Output class 4 Facilitation services
<i>Outcome 1: improved return from our existing industry profile</i>			
<ul style="list-style-type: none"> • data and information products and services • research and scientific services 	<ul style="list-style-type: none"> • resource regulation planning services • licensing services • compliance services • incident response services 	<ul style="list-style-type: none"> • policy, advice and support services • legislation development and review services • portfolio program management services • infrastructure project services 	<ul style="list-style-type: none"> • facilitation planning services • trade and market services • training and education services
<i>Outcome 2: increased investment and expanded industry base</i>			
<ul style="list-style-type: none"> • data and information products and services • research and scientific services 	<ul style="list-style-type: none"> • resource regulation planning services • licensing services 	<ul style="list-style-type: none"> • policy, advice and support services • legislation development and review services • portfolio program management services • infrastructure project services 	<ul style="list-style-type: none"> • facilitation planning services • trade and market services
<i>Outcome 3: responsible and sustainable development and resource management</i>			
<ul style="list-style-type: none"> • data and information products and services • research and scientific services 	<ul style="list-style-type: none"> • licensing services • compliance services • incident response services 	<ul style="list-style-type: none"> • policy, advice and support services • legislation development and review services • portfolio program management services • infrastructure project services 	<ul style="list-style-type: none"> • facilitation planning services • training and education services
<i>Outcome 4: rural communities' prosperity and adaptability</i>			
<ul style="list-style-type: none"> • data and information products and services 		<ul style="list-style-type: none"> • policy, advice and support services • portfolio program management services 	<ul style="list-style-type: none"> • facilitation planning services • training and education services
<i>Outcome 5: effective and efficient use of public funds</i> Applies to output classes 1–4.			

PIRSA's outcomes and strategic objectives, outlined in the corporate strategic plan, align with government priorities as they relate to economic development and employment, the environment and rural communities. Specific priorities within the domain of the agency and Government include improving our operations to become more business-like and a corresponding increase in accountability for public resources and services.



PERFORMANCE REVIEW

In this year's report, performance is reviewed against outputs and major groups are discussed separately.

AGRICULTURAL INDUSTRIES

The Agricultural Industries Group is responsible for managing government resources and services that support the development of agriculture in this State. This is achieved through advice to industry and Government, industry planning, policy development, resource protection programs and projects that improve competitiveness, self-reliance and maximise returns. Programs of the group are Grape and Citrus Industries and Plant Health; Field Crop Industries and Seed Services; Sheep Industries; Fruit, Vegetable and Ornamental Industries; Cattle and Intensive Animal Industries; and Animal Health and Meat Hygiene. These programs develop and enhance the agricultural resource base and protect the productive and natural resources from pests and disease or other threats.

A business unit concept has been adopted by PIRSA to identify service provider functions separately from strategy-policy-purchaser functions. This is consistent with National Competition Policy and the South Australian Government Management Framework. As part of this process, a Service Provider Group was formed to provide a focus for agricultural services provided by PIRSA. This group became the PIRSA Rural Solutions business unit on 1 July 1998. It comprises more than 200 people operating out of 25 centres across the State, and provides services for farmers, companies, industry funding bodies, and the State and Federal Governments. The majority of Agricultural Industries services discussed below were provided by PIRSA Rural Solutions. In addition, PIRSA Rural Solutions has provided programs of a similar size for the Sustainable Resources Group and a wide range of projects and services for external customers.

INFORMATION SERVICES

(output class 1)

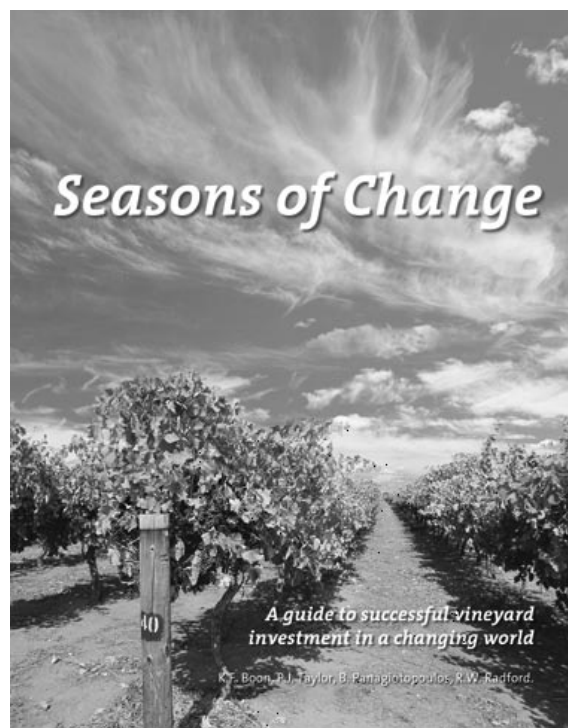
Data and information products and services (output 1.1)

It is essential that primary producers are well informed and up to date with the latest technology to

maintain competitiveness. Each Agricultural Industries program generates, provides and disseminates information by publications, training, consulting and other means. Agricultural Industries provides access to information in response to public inquiries across the State through a Farmer Information Centre at Murray Bridge. This centre handled an estimated 8000 requests in 1998-99.

Grape and citrus industries and plant health

Interest in investing in the wine industry has intensified in recent years with large increases in overseas exports. In response, PIRSA has produced *Seasons of change*, an information kit that draws together all factors that should be considered by potential investors in the industry. Hundreds of copies have already been sold in South Australia, interstate and overseas.



Field crop industries and seed services

Publications sold in the field crops area included 17 000 copies of *Cereal and pulse weed spray charts* that provide an aid for weed control decisions. A canola information package was expanded with the

release of the *Canola check tool kit*, to enable growers to monitor progress of their crops. PIRSA also coordinated inclusion of information into *Pulse-Pak*, a national CD on pulse production and management.

A major grains industry conference, initiated by PIRSA in partnership with the Grains Research and Development Corporation (GRDC), attracted 340 delegates. It targeted advisers and consultants who provide advice to grain growers, and focused on the transfer of research technology.

Fruit, vegetable and ornamental industries

PIRSA has been involved in the production of a range of publications, including investment publications on olives, hydroponic tomatoes, almonds, potatoes and cherries.

Cattle and intensive animal industries

The Meat Standards Australia (MSA) beef quality grading system was introduced to industry through the South Australian Beef Fair at Keith on 4 May. Three MSA workshops, involving over 100 beef producers, were held in beef districts across South Australia in late May. Fifty-three producers have applied for MSA licence agreements. PIRSA will continue to support the roll out of MSA, due for launch at the retail level in August 2000.

The Cattle and Intensive Animal Industries Program funds consultancy services to the South Australian beef feedlotting industry. Nine consultancies were contracted in 1998–99 — seven for development of new feedlots, and two for upgrades to existing enterprises made necessary by environment protection orders issued by the Environment Protection Authority. The added capacity to the State's beef feedlot capacity resulting from these consultancies is 12 000 head.

Three fodder conservation workshops conducted by PIRSA Rural Solutions as part of the cattle unit's program attracted 40 meat producers.

PIRSA, in conjunction with the Department of Environment, Heritage and Aboriginal Affairs, implemented the South Australian Dairy Effluent Management Scheme. The dairy unit in PIRSA managed eight demonstration sites, held eight field days, made 12 field inspections and 35 farm visits, and published six field booklets. The objective is to implement systems for effluent management on dairy farms that comply with the *Environment Protection Act 1993* and associated standards. The Central Hills, Fleurieu, South-East and Northern districts were the last to be serviced under this scheme. It is estimated that the dairy effluent management principles have been taken up on 485 of the 570 dairy farms in these areas (i.e. about 85% adoption).

PIRSA's pig industry program is focused on technology transfer and has engaged in projects aimed at re-positioning the South Australian pigmeat industry following the early 1998 collapse in prices. The State's participation in the National Pig Producer Quality Assurance Program has risen to 160, including 90 submitted during the year from George Chapman's suppliers. These producers will achieve stage 2 status by July 2000.

Seven training courses on pig artificial breeding were conducted involving 90 producers in South Australia and Western Australia. Seminars on export market development and pig reproduction were jointly organised by PIRSA, Austrade and Sabor Ltd; 280 producers attended.

PIRSA continued support for five regional pig producer groups, the South Australian Farmers Federation Commercial Pig Section Executive, and revised five technical articles on pig health for inclusion in Prime Notes, a CD of consolidated fact sheet information compiled by Australia's State agencies of agriculture.

The four-year 'Productivity and marketing improvement of the alpaca fibre industry in Australia' research project has been completed. The key objectives investigated were: fleece production, fibre quality and fibre assessment; phenotypic and genetic parameters for production traits in Australian alpacas; blood minerals, trace elements and vitamin levels of alpacas; and internal parasites and their control.

Research and scientific services

(output 1.2)

Grape and citrus industries and plant health

Some of PIRSA's projects aim to find niche markets for growers. A trial conducted in conjunction with a Riverland citrus grower and packer indicated that lemon production is financially viable in the South-East to meet a summer market niche to replace imported product in the domestic market.

Alternative methods of propagating vine material in short supply have been evaluated by PIRSA in response to the increase in vineyards and wine production in recent years.

Field crop industries and seed services

A new quality assurance scheme, the VIP Seed Scheme for the varietal identity protection of seed of mainly field crop varieties, was launched by PIRSA Seed Services and two national seed companies. The scheme uses normal seed certification principles, but is operated entirely by the companies under an audited accreditation protocol.

PIRSA has also developed and implemented a new quality assurance-based accreditation scheme for seed samplers and for mobile seed processors (machines that can clean and treat seed on the farm).

It is expected that this will deliver significant savings to the South Australian seed industry.

The Seed Testing Laboratory has successfully completed an audit under modified ISO 25 protocols for re-accreditation by the International Seed Testing Association, the peak international body for seed testing. The laboratory has initiated online electronic data transmission of test results to corporate clients that will significantly enhance their seed marketing operations.

Fruit, vegetable and ornamental industries

Benchmarking of economic performance and identification of enterprise financial management strategies for the Australian almond industry were provided by PIRSA in partnership with industry. This has involved analysis of financial and production performance of eight almond growing enterprises; presentation of benchmarking information to industry at workshops and meetings; and preparation of investment information for the almond industry.

PIRSA, in conjunction with industry and the University of Adelaide, has established the national olive variety assessment trial to evaluate more than 100 olive varieties as part of the olive industry development project. The trial will provide valuable yield, quality and agronomic information on all of the commercial olive varieties currently grown in South Australia, be a source of propagating material, and provide a training resource for students and industry.

PIRSA successfully piloted pyrethrum as a new crop in the South-East in conjunction with local growers and Botanical Resources Australia. Commercial planting will commence in the 1999–2000 season, and there will be a need for industry to invest in processing and packing facilities as production develops.

PIRSA commenced a training program with Northern Adelaide Plains vegetable growers to facilitate the introduction of recycled irrigation water in the region.

STATE RESOURCE REGULATION SERVICES

(output class 2)

Resource regulation planning services (output 2.1)

A number of animal and plant pests and diseases can potentially threaten the livelihood of primary producers, impacting on health, production and trade. PIRSA has developed services that aim to protect plant and animal resources and ensure compliance with relevant requirements.

Animal health and meat hygiene

An independent animal health review has identified that South Australia can improve systems for disease

surveillance, risk assessment and quality assurance. PIRSA has made a commitment to significantly improve structure and delivery of the animal health programs over the next three years. These are essential to provide supporting data for export of livestock, meat and dairy products, and to enable the State to meet its national disease control, surveillance and food safety obligations.

Improving control of American Foul Brood apiary disease has been the focus of the Apiaries Ministerial Task Force. Apiarists have agreed to adopt an annual registration process and pay a hive levy to support the new mandatory American Foul Brood Control Program. Honey packers have agreed to test their suppliers on an annual basis. An Apiary Advisory Group is being formed under the *Livestock Act 1997* to provide advice to the Minister for Primary Industries, Natural Resources and Regional Development on new initiatives for the apiculture industry.

The Meat Hygiene Unit (MHU) is responsible for administration and enforcement of the *Meat Hygiene Act 1994*. The unit provides policy advice to the Minister, manages the contract for inspection and audit services, and has overall responsibility for ensuring compliance by industry with national standards. In 1998–99, 84% of meat processors were operating under fully approved quality assurance programs subject to external third party audit; 3% had achieved interim approval and 13% of new entrants were progressing through the implementation phase.

Programmed unannounced audits of meat processing facilities by the MHU have been useful in identifying trends and verifying performance. Only 3% of the 140 meat safety audits carried out in 1998–99 identified noncompliance.

Meat and Livestock Australia assigned an independent auditor to undertake a series of national cross-reviews to verify consistent application by State and Territory agencies of minimum meat industry standards across Australia. The audit was particularly successful in South Australia. The auditor reported that national standards have been implemented consistently, audit standards meet national agreed levels, and the contract auditors for the Minister for Primary Industries, Natural Resources and Regional Development have a good methodology, provide good technical service to industry, operate professionally and focus on the essentials.

Licensing services (output 2.2)

Animal health and meat hygiene

PIRSA's MHU clientele was made up of 442 accredited operations in 1998–99; 289 carried over from the 1997–98 financial year and 153 were newly accredited operations, mostly kangaroo field processors. The program also licences over 800 meat transport vehicles, and 45 accreditations have

been issued to small businesses operating from retail meat processing establishments.

Compliance services (output 2.3)

Grape and citrus industries and plant health

The PIRSA Plant Health Program manages government resources to minimise the impact of declared pests and diseases on plant-based industries in South Australia. Following on from the fire blight eradication program at both the Adelaide Botanic Gardens and the surrounding 250 metre zone in late 1997, the latest survey program (spring 1998) did not detect this disease. The survey, involving home gardens and parks across metropolitan Adelaide, and apple and pear production areas in the Adelaide Hills, South-East and Riverland, gave South Australia the all clear for this disease.

The Plant Health Program detected six fruit fly outbreaks in metropolitan Adelaide through monitoring and surveillance, and completed successful eradication responses. More than 780 000 vehicles travelled through PIRSA's four roadblocks, over 93 tonnes of fruit and vegetables were intercepted, and 31 instances of fruit fly were detected. Survey programs for onion smut and bacterial wilt of potatoes were successfully completed. Market surveillance (wholesalers) continues to ensure compliance with import requirements and restrictions. Plant health inspection and certification were undertaken to facilitate horticultural exports to interstate markets.

In addition to its own fruit fly monitoring and response, PIRSA has contributed both financially and technically to the recent successful eradication programs for papaya fruit fly in north Queensland and exotic fruit fly in the Northern Territory. PIRSA has also been involved in national programs of surveillance and response to exotic pest and disease incursions including fire blight, southern red mite and grapevine virus B.



Animal health and meat hygiene

The Sheep Advisory Group will continue the very successful regulatory sheep lice program that was initially funded by the Government for a trial period of two years. A survey found that 92% of farmers are in favour of the simple but effective program. There are only two regulations that make it an offence to sell lousy sheep or to allow them to stray.

Inspectors attend major markets and check for the presence of lice wherever clinical signs are seen. Ninety-two notices were issued during the year.

South Australia is one of only two States where primary surveillance of accredited meat processing facilities is carried out by an approved third-party inspection or audit agency, appointed on contract to the Minister for Primary Industries, Natural Resources and Regional Development. Under these arrangements, more than 500 audits of approved quality assurance programs and 145 inspections of accredited field processing operations were completed during the year to verify compliance with industry standards.

PIRSA has been diligent in pursuing companies and individuals that choose to operate outside the Meat Hygiene Act. Ninety-four complaints were investigated during the year, resulting in seizure of product, and litigation. The Minister for Primary Industries, Natural Resources and Regional Development's power to suspend an accreditation was used in one instance.

South Australia has now eradicated all known Enzootic Bovine Leucosis from its dairy herds. This disease was first identified in the State in 1993, and an industry partnership between dairy farmers, milk manufacturers and PIRSA to control the disease commenced in 1995. Twenty herds need final tests to be completed before the State can declare an official disease-free status. Surveys and investigations have shown that this disease is not known to exist in any of the State's beef cattle. South Australia is now the only State in Australia where this disease does not exist in either beef or dairy cattle.

The bovine Johne's disease (BJD) program has been established to control the spread of this disease in cattle herds. Nine infected herds were detected during the year, bringing the total in South Australia to 29. There are now 46 herds in South Australia enrolled in the Cattle Market Assurance Program for this disease, which provides a level of assurance on the disease level of herds for stock owners and prospective buyers. The South Australian Farmers Federation and the South Australian Dairyfarmers Association have worked jointly with PIRSA to develop a management plan for BJD in South Australia. The State met national requirements to be declared a Control Zone for BJD on 1 July 1999.

Incident response services (output 2.4)

Field crop industries and seed services

One of the largest ever broadacre insect eradication programs in Australia was undertaken in the Upper North pastoral and farming districts. It was South Australia's first targeted small plague grasshopper eradication program, with 327 000 hectares sprayed at a cost of \$2.1 million. The program, which will be repeated in 1999, is estimated to have prevented \$26 million of damage to crops and pastures.

Ten percent of the 72 000 hectare lupin crop area was surveyed as part of the disease management strategy to stop the spread of anthracnose and eliminate the disease on affected properties on Eyre Peninsula. Eradication procedures have commenced on a further nine infected properties on lower Eyre Peninsula.

Animal health and meat hygiene

A comprehensive investigation was completed following detection of ovine Johne's disease (OJD) on Kangaroo Island. Twenty-one more flocks have been found with some infection and placed under movement restrictions. Over 70 other flocks with some contact have been cleared of infection. An animal infected with Johne's disease was found in a merino stud in the Mid-North. A comprehensive process to check for disease in in-contact flocks and herds is continuing.

A full-time veterinary specialist was appointed to provide advice to Government and industry, and coordinate the State's OJD program. The State met national requirements to be declared a Control Zone for OJD on 1 July 1999. South Australia continues to dominate Australian flocks joining the Market Assurance Program. More than 300 flocks are now enrolled in the first year. The program of testing is aimed at providing a level of assurance for stock owners and prospective buyers about the disease levels of their flocks.

Four Animal Health staff provided assistance in response to the outbreak of virulent Newcastle disease in commercial poultry farms north of Sydney, New South Wales.

SUPPORT SERVICES TO GOVERNMENT (output class 3)

Policy advice and support services (output 3.1)

PIRSA provides policy and technical advice to the Government on all aspects of agriculture, and plant and animal health. Over 500 briefing notes, responses to ministerial inquiries and speech notes were prepared for the Minister for Primary Industries, Natural Resources and Regional Development. Meetings were held in Adelaide for the Standing Committee on Agriculture and Resource Management (SCARM), and the Agricultural and Resource Management Council of Australia and New Zealand (ARMCANZ).

Fruit, vegetable and ornamental industries

The Industry Development Board for Horticulture has consolidated its role in producing policy advice to the Minister. A major strategic planning process for horticultural industries was completed and a five-year implementation strategy is to be produced by September 1999.

Cattle and intensive animal industries

The agency supported 15 industry and government reviews and inquiries, including litigation brought by the Australian Meat Industry Employees Union against the State over redundancy arrangements in the SAMCOR sale contract, and Exceptional Circumstances assistance for part of the Northeast Pastoral District.

PIRSA worked with the South Australian Farmers Federation in preparing the State submission to the Rural Adjustment Scheme Advisory Committee for Exceptional Circumstances assistance for the pork industry. The application failed but the Federal Government has instituted assistance to the industry through the Pig Processing Grant Scheme and the National Pork Industry Development Program, collectively valued at \$24 million.

Major contributions were made to the Productivity Commission Inquiry in Pig and Pigeat Industries: Safeguard Action Against Imports. PIRSA prepared a South Australian Government submission and presented verbal evidence before Commissioner Snape.

The Deer and Goat Industry Advisory Groups were formed and have commenced work on industry issues. Regulations governing the Deer Advisory Group and the collection of industry levies have been initiated.

The South Australian Meat Industry Awards for Excellence were initiated by the Industry Development Board for Meat, in cooperation with several sponsors and industry. The aim of the awards is to raise the image and create pride in the meat industry by highlighting the achievements of individuals. The awards cover six categories along the market chain, from farms to restaurants, and focus on principles of quality and industry best practice. P & O Nedlloyd have been awarded the naming rights for the 1999 awards, now to be known as the P & O Nedlloyd Meat Industry Awards for Excellence.

Animal health and meat hygiene

PIRSA provides the secretariat to the South Australian Meat Hygiene Advisory Council. The Council's planning process, undertaken in late 1998, developed strategies to maintain industry performance in food safety and meet emerging challenges.

Key contributions have been made to the ARMCANZ Meat Standards Committee in preparation of Australian Standards; consistency of implementation of HACCP (hazard analysis critical control point) and quality assurance (including auditing standards); identification of important national industry training competencies and priorities; the export of product from domestic establishments; microbiological verification

activities; and equivalence of alternative processing techniques.

Legislation development and review services (output 3.2)

Legislated changes to the *Barley Marketing Act 1993* have arisen from a review under the National Competition Principles Agreement. The Act has been amended to establish a grower-owned share company to replace the Australian Barley Board's role in marketing barley from 1 July 1999, with the 'single desk' provisions being extended until 30 June 2001. A National Competition Policy review of the *Wine Grapes Industry Act 1991* was completed, and reviews of the *Citrus Industry Act 1991*, *Fruit and Plant Protection Act 1992*, *Noxious Insects Act 1934*, *Veterinary Surgeons Act 1985*, *Meat Hygiene Act*, *Dairy Industry Act*, *Phylloxera and Grape Industry Act 1995* and *Dried Fruits Act 1993* were initiated.

Preparations are under way to repeal four Acts by the end of 1999 — *The Agricultural Holdings Act 1891*, *Fruit and Vegetable (Grading) Act 1934*, *Garden Produce (Regulation of Delivery) Act 1967* and *Margarine Act 1939*.

Animal health and meat hygiene

The Livestock Act makes provision for industry bodies in South Australia to form advisory groups and provide advice to the Minister for Primary Industries, Natural Resources and Regional Development on important industry initiatives, particularly for legislative requirements and providing industry funds for projects. Five advisory groups have been formed in the past year for the cattle, sheep, pig, apiculture and deer industries; the alpaca industry is considering its position. The sheep and cattle groups have already played an important role in dealing with the control of Johne's disease.

The 'Report of the Auditor-General', tabled in Parliament in October 1998, reviewed the capacity of PIRSA to meet its statutory obligations, administer and enforce the Meat Hygiene Act, and manage the risk within the meat processing sector. The report identified no shortcomings with the administration of compliance, audit and surveillance activities. The Auditor-General reported that the introduction of the Meat Hygiene Act brought the regulation of meat processing into harmony with national reforms and developments in food standards.

The development of draft national food safety standards that will impact on primary industries has resulted in inter-agency coordination and liaison between PIRSA and the Department of Human Services (South Australian Health Commission). High-level inter-agency consultation and the formation of a Food Safety Coordinating Committee within PIRSA are important outcomes that will

ensure a smooth rollout of national food safety initiatives within the primary sector.

FACILITATION SERVICES

(output class 4)

PIRSA provides services to facilitate the planning and development of agricultural industries. Farmers, farming groups and other potential investors look to PIRSA for help in developing strategic alliances in all matters involving development and enhancement of agriculture in South Australia.

Facilitation planning services

(output 4.1)

A review of the South Australian wheat breeding program has been completed and consultation with industry has commenced.

Trade and market services (output 4.2)

Grape and citrus industries and plant health

PIRSA provided high-quality propagation services to satisfy the wine grape industry's demand for first-stage multiplication material that is disease-free and true-to-type.

Sheep industries

The Wool Marketing 2000 Project is a major initiative of the Industry Development Board for Wool to increase the efficiency and cost-effectiveness of wool marketing through better communication between producers and processors. Producer groups have been established in the major wool growing regions of the South-East, Kangaroo Island and Pastoral areas. A catalogue of wool available from 75 producer members has been established to allow processors to have a description of available wool. Training programs have been established to enable producers to better understand how to value their wool, how to develop risk management strategies for selling the clip, and to understand the cost of production and its significance in determining profitability.

Fruit, vegetable and ornamental industries

PIRSA provided horticultural technical and leadership support to a number of trade delegations, including the HOFEX '99 Market Awareness Mission to Hong Kong, Taiwan and Singapore, and an apple industry trade delegation to the United Kingdom and Europe. These programs exposed more than 40 South Australian growers and packers of horticultural produce to export market opportunities.

Animal health and meat hygiene

Protocols have been developed for the export of meat and meat products from domestic establishments to New Zealand, without the constraints of export registration, to enhance exports. Under these arrangements PIRSA can

provide the certification of product. Due to this and other issues, the Memorandum of Understanding between the MHU and the Australian Quarantine Inspection Service, to manage and minimise areas of common jurisdiction, was reviewed.

Training and education services (output 4.3)

Agricultural Industries is involved with many joint programs with industry and industry bodies.

Grape and citrus industries and plant health

Data analysis and reporting for the Crop Watch service in the Riverland was again supported. A group-based action learning program was initiated to assist South Australian wine grape growers gain the skills, knowledge and confidence needed to implement best practice technical and farm business management systems. Similar support was provided to citrus growers.

Field crop industries and seed services

The canola industry is now worth \$80 million to South Australia, making it the third most important crop after wheat and barley. Growers have been well supported by the Canola Check skills training program. Continued industry expansion has generated the critical mass needed to attract investment in canola processing. A canola meal report has identified an immediate market for 30 000 tonnes if an oilseed crush facility were to be built in South Australia.

Better Soils, a three-year project, was launched in February following a series of pilot workshops last spring on Yorke and Fleurieu Peninsulas. The project, organised by the Advisory Board of Agriculture (ABA) and jointly funded by the GRDC and NHT, is aimed at improving farmer understanding and on-farm application of soil management techniques to optimise productive capacity. Initial training workshops were delivered to about 50 bureau groups across the State during the year attracting more than 600 growers.

A total of 350 individual group meetings and paddock walks were carried out as part of a TOPCROP group-based training program, involving 746 farmers in 81 groups across South Australia. The GRDC and industry assisted in development of the training activities.

The chickpea industry has been devastated by the fungal disease *Ascochyta* blight, resulting in a 75% contraction of a \$5.3 million industry. PIRSA has developed and publicised a disease management



Inspecting canola crops, Hart Field Day, 1998. (Photo 100934)

strategy to regenerate the industry in the medium term.

Major research and training programs to expand crop production in both low and high rainfall regions of South Australia have commenced. The aim of these programs over the next four years is to bring another 150 000 hectares into crop production. There are opportunities in low rainfall regions on Eyre Peninsula and the Murray Mallee to implement more profitable and sustainable farming systems, while graziers in high rainfall regions in the South-East and on Kangaroo Island are entering cropping following the collapse of the wool market. Both these initiatives involve the establishment of partnerships with GRDC.

Sheep industries

The Better Breeding project stimulates commercial producers to seek more information on advanced breeding technology, to buy rams with a view to the performance of their progeny, and to run progeny comparisons on their farms to evaluate their selection decisions. The project, run in partnership with the ABA and the Woolmark Company, has involved 550 producers in the first round of workshops. These introduced major breeding issues commercial producers need to consider to increase profitability. As a result, 42 on-farm ram comparison evaluations have been set up across the State. A second round of workshops is proposed to promote the benefits of the evaluations.

The Lamb Consistency Program is managed by the South Australian Lamb Development Team (producer, industry service providers and government members) and is financially supported by Meat and Livestock Australia. A Product Development Officer is employed by the team to achieve more consistent supply and quality of South Australian lamb. The percentage of lamb traded



Farmers scanning the offspring from two ram sources as part of a Better Breeding Field Day. (Photo 100935)

industry personnel from 70 companies attended four separate sessions.

over-the-hook has grown from 10% to the target of 25%. In the 1998 survey, 43% of lambs slaughtered in South Australia were greater than 22 kilograms carcass weight; the target was 25%. The lamb industry network has been fostered through the regular quarterly newsletter, support of the planning and development of the 15 lamb producer groups across the State, and the initial business plan development for the Southern Australian Meat Alliance.

The Wool Industry Development Project aims to develop skills, knowledge and confidence to implement best practice technical and farm business management systems for wool producers. A specific initiative has been the development of a cost of production project with the Woolmark Company as part of a national move to improve producers' business skills. The producer-initiated research and development projects of three producer groups have been supported and the training and education opportunities under the FarmBis program have been promoted.

Planning by the Industry Development Board for Wool for the Sheep Industry Development Centre at the Roseworthy Campus of the University of Adelaide has been completed and the position of Project Manager will be advertised soon. The centre will promote improvement of productivity and profitability in the sheep industries through the development of a culture of life-long learning.

Animal health and meat hygiene

PIRSA has been working with the meat industry to increase industry skill levels in meat hygiene and food safety. The agency negotiated further Department of Education, Training and Employment subsidised training initiatives to provide qualified meat safety officers in the South Australian meat industry, now incorporating an additional 57 companies. Externally-funded industry workshops were also initiated to assist South Australia's meat processors achieve national deadlines for microbiological testing and verification of HACCP (food safety) programs. More than 120 meat

FISHERIES AND AQUACULTURE

The Fisheries and Aquaculture Group is responsible for providing management, monitoring and extension advice services to Government, industry and the community to maintain and develop the State's aquatic resources for the benefit of current and future generations. The group achieves this through four key functions — development of management arrangements for aquatic resources in consultation with stakeholders; development of appropriate legislation to reflect these management arrangements; education of stakeholders and the general community about aquatic resource management issues; and monitoring and promoting community compliance with legislation and regulations.

INFORMATION SERVICES

(output class 1)

Data and information products and services (output 1.1)

PIRSA provides fishery management plans, aquaculture development plans and economic assessment reports for major fisheries to industry and potential clients to assist in development and management planning. The Spencer Gulf and West Coast Prawn Fisheries Management Plan was finalised and introduced. Five of seven management plans are now completed.

A Customer Service Charter was developed to improve services and forge closer relationships with industry and the community. The service charter is outlined in a brochure, *Putting customers first*, and applies to licensing, policy, compliance, education and industry development inquiries.

Research and scientific services

(output 1.2)

Research programs in support of the South Australian Marine Scalefish Fishery were independently reviewed. Advice on their relevance and value, particularly to the commercial sector of the fishery, was provided.

An economic assessment of the seven major South Australian commercial fisheries, summarising the results of economic surveys of each fishery, was carried out by an independent consultant. Economic performance indicators were presented for each fishery and a consistent time series of economic information developed to aid management.

STATE RESOURCE REGULATION SERVICES

(output class 2)

Resource regulation planning services (output 2.1)

New sites for ecologically sustainable aquaculture development were sought during the year.

Opportunities were identified for several new aquaculture sectors and the expansion of existing sectors. Scallops and yellowtail kingfish are being farmed for the first time in South Australia and several new areas have been established for oyster farming. Major projects approved for development included farms with a capacity of 1200 tonnes of southern bluefin tuna, 500 tonnes of Atlantic salmon and 1000 tonnes of snapper.



Oyster farm, Eyre Peninsula, 1998. (Photo 200022)

A workshop was presented on the framework for aquatic site selection.

Assessment procedures for aquaculture development were streamlined, reducing outstanding applications by more than 50%.

A management plan was drafted for harvesting beach-cast seagrasses to facilitate the development of an export potential market; public comment will be sought. New management arrangements were finalised for the Scallop and Sea Urchin Fisheries.

Amendments to the Streaky Bay and Lower Eyre Aquaculture Management Plans were prepared and authorised.

A review of the marine scalefish fishery commenced in October. All aspects including research requirements, industry development opportunities, and allocation amongst sectors are being examined and a management plan developed. The revised arrangements are expected to be implemented by July 2000.

The aquatic animal health policy is being reviewed to assist with strategic planning for the future directions of fish health in South Australia.

Licensing services (output 2.2)

The issuing of fishery licences, ministerial exemptions and permits is carried out to ensure that

resources are allocated equitably amongst the community and industry sectors, and that activities are undertaken in a manner acceptable to the community. A total of 996 commercial fishing licences (including 63 transfers) and 716 aquaculture licences (244 sea and 472 land-based) were issued.

Compliance services (output 2.3)

PIRSA provides compliance services to the wild capture and aquaculture industries to ensure that resource-sharing arrangements can be complied with, and production by both commercial and recreational fishers is within prescribed limits to meet sustainability objectives. Activities include monitoring of commercial catch composition and quotas, recreational daily bag and boat limits, compliance with commercial catch limits, restrictions on the use of gear by recreational and commercial fishers, and compliance by all resource users with restrictions on access to marine protected areas and aquatic reserves.

The safety of farmed seafood has been enhanced with the establishment of biotoxin monitoring. Under the program, water and shellfish meat from all South Australian Shellfish Quality Assurance Program harvesting areas are regularly analysed.

Safe Quality Food programs, SQF 2000, for freshwater crayfish growers, the oyster industry and processors were implemented to ensure product quality.

PIRSA contributed to the initiation of accredited seafood processing facilities in this State; the first accreditation was issued this year.

A vessel monitoring technology is being trialed in the Spencer Gulf Prawn Fishery to demonstrate its effectiveness in fisheries management, marketing and compliance.

Incident response services (output 2.4)

A large fish kill occurred in Lake George in February. To conserve the remaining brood stock, commercial and recreational fishing in the lake have been banned since April for an indefinite period. Scientific sampling will be undertaken in July–August 1999 following the winter rains.

A large pilchard kill was first reported in the western Spencer Gulf on 14 October and subsequently spread east and west to Victorian and Western Australian waters. The last reported pilchard kill was in Western Australia in May. Section 43 of the *Fisheries Act 1982* was used to prohibit the taking of pilchards from all South Australian waters. The origin of the virus and the trigger event that initiated the mass mortality are being investigated through a nationally coordinated research program. The program is overseen by a working group chaired by PIRSA.

SUPPORT SERVICES TO GOVERNMENT (output class 3)

Policy advice and support services (output 3.1)

PIRSA provides policy and technical advice to the Government on all aspects of fisheries and aquaculture. The Minister for Primary Industries, Natural Resources and Regional Development is briefed on Fisheries Management Committee outcomes and current fisheries issues, and is represented on several national fisheries groups. Over 600 briefing notes and responses to ministerial inquiries were prepared for the Minister.

PIRSA was represented on the Compliance Subcommittee (of the Standing Committee on Fisheries and Aquaculture), which released a report, *Strategic direction for Australian fisheries compliance*. The agency also contributed to the Australian Quarantine and Inspection Service Import Risk Assessment panel inquiring into non-viable salmonoids.

The agency participated in a national Abalone Compliance Workshop held in Queenscliff, Victoria. PIRSA, together with other invited representatives from Norway, Namibia and the United States, participated in a workshop in South Africa to provide an international perspective on fisheries compliance.

Legislation development and review services (output 3.2)

A review under the National Competition Policy of the Fisheries Act is under way. Stakeholder Reference Groups have been established and a green paper is being prepared. Reviews of subordinate legislation (part of the normal sunset process) are on hold as these are contingent on a new Fisheries Act.

A bill to improve arrangements for dealing with debt relating to the *Fisheries (Gulf St. Vincent Prawn Fishery Rationalisation) Act 1987* is awaiting presentation to Parliament. Structural adjustments were made to the River Fishery.

The Aquaculture Regulations were revoked in May after Cabinet consideration. Consultation with stakeholders is under way to resolve a number of issues including concerns with the Aquaculture Management Committee and over the potential removal of opportunities for public input into the development process. It is anticipated that the amended regulations will be introduced into Parliament in late 1999.

Portfolio program management services (output 3.3)

PIRSA assesses selected performance measures for exploited stocks to ensure the sustainability of the State's aquatic resources. Comparisons between 1996–97 and 1997–98 data on catch and fishing

effort for 10 fisheries indicates that all were operating within sustainability indicators. However, the long-term sustainability for snapper is a concern due to variability in recruitment.

FACILITATION SERVICES

(output class 4)

Trade and market services (output 4.2)

A fish health veterinarian was appointed to assist in managing the expanding aquaculture industry and the potential risks to both farmed and wild fish.

The mussel industry was supported through a range of strategies including development and facilitation of a workshop focusing on future directions and their achievement.

An oyster spat importation protocol was developed and ratified by industry to manage the risks associated with the importation of oyster spat into South Australia.

Eight international trade delegations to investigate aquaculture investment in South Australia were facilitated.

PIRSA was a major sponsor of the World Aquaculture '99 Conference held over four days in Sydney in April–May; it was attended by about 3000 delegates and included 200 trade displays. The State's aquaculture industries, investment opportunities and research capability were promoted through the agency's display. PIRSA hosted two workshops following the conference on water quality and pond dynamics, and environmental monitoring.

Training and education services

(output 4.3)

Seafood Farmer, a quarterly newsletter for the aquaculture industry, was initiated.

PIRSA's *Southern Fisheries* was re-launched in December following a review that found it provided information not available elsewhere. Production had been stopped in 1997 while the agency undertook a review of its community awareness projects. The review highlighted that the magazine had played a valuable role in informing readers by providing information that is not available through any other source. As a result, a decision was made to re-launch the magazine on a quarterly subscription basis. The new release contains the latest fishing news and aims to stimulate discussion amongst recreational and commercial fishers about issues affecting the industry.

Signs indicating size, bag and boat limits, and providing information about the marine environment have been erected at popular shore-based fishing spots and boat ramps. Aquatic Reserves and areas subject to permanent fishing and spearfishing closures were also signposted. The state-wide project was jointly funded by PIRSA, Fisheries



Mick Olsen, PIRSA Fisheries' hovercraft. (Photo 200100)

Action Program and Coastcare; local councils, recreational fishing committees and other service groups provided assistance.

PIRSA's project to install fish measuring stations at jetties and boat ramps across the State was completed with more than 70 stations erected.

The PIRSA Fisheries' hovercraft, *Mick Olsen*, was launched to assist officers patrolling the recreational blue crab fishery.

Aquaculture was promoted at various community events including the Royal Adelaide Show. The Fisheries and Aquaculture Education Caravan was utilised at the Boating and Fishing Show, various community events and field days. Presentations relevant to fisheries management were made to community groups and schools. A 'Let it go — watch it grow' campaign was commenced, targeting primary schools state-wide. A new community awareness program, Fishcare Cadets, is being developed in collaboration with the FISHCARE Volunteers. The FISHCARE Volunteer Program was expanded across the State to seventy active trained volunteers with the inclusion of a new team on the Yorke Peninsula.

Ten fisheries compliance trainees were recruited to PIRSA's Fisheries and Aquaculture Group in January in conjunction with the State Government Youth Training Scheme. In addition, 120 youth trainees were placed in jobs in the aquaculture industry (mainly in regional South Australia) in a joint project between the State Government and Australian Fisheries Academy.

RESEARCH AND DEVELOPMENT

The South Australian Research and Development Institute (SARDI) is PIRSA's active resource for primary industries research and development, and is a primary source of advice on State science and research policy. It was established to provide a better focus and direction for the State's research capacity; to ensure that research outcomes are relevant and available to industry; ensure that research and its management operate within commercial and industry standards; and increase South Australia's national research and development profile and influence.

SARDI operates in four strategic research areas — Aquatic Sciences, Crops, Horticulture and Livestock Systems. The operational research units are supported and complemented by Corporate Services and Communications units. Research and development services are provided to agribusiness, commercial enterprise, manufacturing and processing industries, natural resource conservation agencies, primary industries (agriculture, fishing and aquaculture), rural industry development corporations and State Government agencies.

INFORMATION SERVICES

(output class 1)

Data and information products and services (output 1.1)

A three-day National Science Week program attracted more than 300 South Australian secondary students to the Waite Research precinct during May. 'Science for the Senses' included six sessions, each focussing around a different area of agricultural and natural resource sciences. Activities were conducted by PIRSA, University of Adelaide, The Australian Wine Research Institute and the Cooperative Research Centres for Weed Management Systems and Molecular Plant Breeding.

Aquatic sciences

The South Australian Aquatic Sciences Centre Open Day in March attracted more than 12 500 people. The public were able to view live rock lobster, snapper, King George Whiting and octopus displays and staff were on-hand for discussion. The main attraction was the Great White Shark which has since been dissected and studied in conjunction with National Geographic.

Conserving South Australia's marine biodiversity, which describes the marine and coastal biogeography of South Australia and identifies areas of high conservation value, was published in two volumes. The report is a key reference for multiple-use planning and sound management of South Australia's marine habitat.

Crops

Varietal sowing guides for field crops and new crop variety information brochures were widely distributed to growers throughout South Australia. Annual and post-harvest reports for 1998, which detailed annual research results from the South Australian Field Crop Evaluation Program, were distributed to industry. A very successful wheat quality workshop for farmers and scientists was organised in conjunction with the Cooperative Research Centre for Quality Wheat.

A Climate Risk and Yield Information Service was launched to assist farmers on Upper Eyre Peninsula for sowing decisions on the basis of seasonal conditions and likely yields. This commercial service was developed from collaborative research and development in association with the Kondinin publishing group.

Presentations were given on canola varieties and their agronomy during February and March; 600 farmers and 200 consultants and agronomists attended.

The Oat Harvest Newsletter was published and distributed to cooperators, agronomists and industry.

A cooperative venture to develop and undertake training for students and clients already in agriculture within the framework of national agricultural competencies began with Karcultaby Area School, University of South Australia and a private consultant.

Two pocket guides were developed to assist in sorting crop disease symptoms from other factors, and *Ute guide — Insects* was published to assist with identification of insects.

The Root Disease Testing Service carried out national accreditation on sampling, interpretation and biology of cereal root diseases. Two national workshops involving scientists from universities, CSIRO and State agricultural research institutions were held to develop future directions for double haploids and root lesion nematode research. Nationally accredited courses in the service attracted 270 agronomists.

Horticulture

Crop Test, a decision support system for improved nutrient management of potato crops, was produced with funds provided by the Horticultural Research and Development Corporation to assist growers and agribusiness interpret plant test data and identify symptoms of nutrient stress. Forty packages have been distributed to industry service providers.

A photographic guide to performance and selection of potato varieties for South Australia was produced. It describes quality characteristics and suitability for cooking and processing of the new varieties Desiree, Coliban and Atlantic.

A guide to calibrate fruit tree and grapevine spray equipment using the concept 'Unit Canopy Row' was published to assist growers in improving spray application efficiency and reduce chemical residues.

Livestock Systems

A new version of the Australasian Livestock Feed Ingredient database (ALFI) was developed to provide nutritive values of existing and new feed grains when developing least cost rations. The database has been forwarded to over 30 potential users for testing.

A book on rearing dairy heifers in Australia, submitted for publishing, will provide the dairy industry with up-to-date information on how to improve the efficiency of dairy heifer-rearing enterprises.

Research and scientific services

(output 1.2)

The significant contribution that SARDI-managed research programs make to the State was demonstrated through benefit – cost analyses of major programs. A review of eighteen programs to date have provided benefit – cost analyses ratios in the range 5:1 to 160:1 with a weighted mean of 18:1.

Aquatic Sciences

A range of outputs critical to the needs for sustainable development of South Australia's fisheries resources were produced. Measures against performance indicators for each of the State's fisheries, useful information on catch histories and relevant biological information were published in the South Australian Fisheries Assessment Series. Subjects covered were Spencer Gulf and West Coast Prawns, Gulf St Vincent Prawns, Abalone, Southern Zone Rock Lobster, Northern Zone Rock Lobster, Blue Crabs, Snapper, Garfish, King George Whiting, Sand Crabs, Cuttlefish, Pilchards, Calamari, Mud Cockles, and the River Murray, Lakes and Coorong.

PIRSA carries out a large amount of research funded through the Fisheries Research and Development Corporation (FRDC), supplementing the core work of stock assessment which underpins the management of South Australia's fisheries. Final reports to FRDC were completed on improved sampling methods for the rock lobster fishery, aspects of the giant crab fishery, development of assay methods for tuna, identification of tuna parasites, enhancing abalone through re-seeding, fisheries biology and assessment of pilchards, and implementation of bycatch reduction devices.

A number of projects focusing on the importance of fisheries habitat began this year, including an evaluation of the fate of discarded bycatch from the prawn fishery, habitat modification in Gulf St Vincent, and an evaluation of the effect of seabed damage by rock lobster pots. These studies are improving the understanding of the level of impact

fishing has on the marine ecosystem, and will ultimately lead to improved management of South Australia's aquatic resources.

A strong focus on inclusion of postgraduate students within PIRSA's fisheries programs has boosted the research effort. Students based at the Aquatic Sciences Centre are enrolled at universities in South Australia and interstate. Topics studied include garfish larvae and their habitat, food web modelling, marine biogeography, octopus predation of lobster, importance of seagrass assemblages, seagrass dieback, fisheries biology of calamari, and fisheries biology of cuttlefish.

Advances were made in a number of key aquaculture areas including overcoming technical impediments associated with development of new species, and a range of projects to improve efficiency in the industry. Notable progress was made in developing environmentally friendly food for tuna aquaculture, and the continued refinement of abalone diet has increased its performance while decreasing the cost of the feed. Work continued on evaluation of diets for long-term holding of rock lobster. Significant advances were made towards establishing the necessary spawning and larval rearing protocols for King George Whiting and scallops. A large number of site assessments were made for aquaculture planning approvals processes, and environmental monitoring of oyster and tuna farming operations was carried out.

Crops

A DNA test of chickpea seed, to check for fungal leaf and stem disease, was developed in association with the CSIRO and delivered commercially.

Collaborative research with University of Adelaide plant breeders has culminated in the release and commercialisation of a new feed barley (Keel) and a hard quality wheat.

A new five-year research program to evaluate and facilitate the delivery of high-yielding, profitable grain varieties that are well adapted to southern Australia was initiated. The program, jointly funded by GRDC and State Governments, will cost more than \$1.2 million/year.

A National Crop Accreditation Database System is being developed to provide information to crop producers on performance varieties and facilitate variety selection.

A comprehensive (mainly minimum tillage) field trial program was put in place in 1999 involving 13 crop species, and more than 100 field trial sites and 40 000 trial plots across the State.

Research work on the use of digital image analysis in oats to improve selection for grain quality commenced. Four projects on grain quality, aimed at producing more valuable products for South Australia, have been negotiated and will be externally funded.

Operation FerTill, a joint project involving Pivot, Flexi-coil and PIRSA, has continued to provide significant insights into the benefits of improved fertiliser placement technology giving economic improvements in grain yield and quality.

Research on soil-incorporated herbicides has shown that trifluralin can be used successfully in front of a one-pass direct-drill seeder with narrow points and press wheels. The research was carried out in conjunction with Allan Mayfield Consulting and the Cooperative Research Centre for Weed Management Systems.

Permits for fungicides to be used in the pulse industry are now in place for South Australia. Collaborative research with Pulse Australia has identified two advanced oat breeding lines with potential as new variety releases for milling end use in high rainfall locations. Four pea varieties — Parafield, Soupa, Santi and Mukta — were released in 1998.

A joint project, 'Unlocking the soil phosphorus bank', has been negotiated with the Minnipa Agricultural Centre and Plant Industry Division, CSIRO (Canberra). Projects on the evaluation of remote sensing as a diagnostic device for crop nutrition (with the University of Adelaide) and evaluation of new pasture species were also initiated.

Research commenced on European wasps, funded by the Office of Local Government. Biological control of dock was established on Kangaroo Island. A crown-boring weevil for the biological control of Paterson's curse is well established at some sites; it is now possible to field-collect weevils for distribution in new release areas, replacing a labour-intensive laboratory rearing method.

New technologies have been developed for producing double haploids. The release of disease resistant cereals was progressed with the development of molecular markers for resistance. Development of markers for root disease (e.g. root lesion nematodes) is progressing.

DNA probes for detection of pathogens are being developed by the Root Disease Testing Service in association with CSIRO Entomology. These are important for studies on epidemiology.

Horticulture

A technique for reducing water use on grapevines by 50% and improving wine quality has been developed in a collaborative project with CSIRO and University of Adelaide. The technique is being demonstrated in the field in association with an international supplier of irrigation equipment.

High-quality disease-free Shiraz vines, which will produce premium quality wines, are being identified in a joint venture with vine improvement committees. The vines have been assessed for

quality characteristics and freedom from harmful viruses, and will be released through the committees.

Research to improve wine quality through the selection of improved varieties and development of new cultural techniques is being carried out. Improvements will be assessed using a facility for flavour and aroma analysis established at the University of Adelaide's Wine Science Laboratory.

The early ripening Spanish Navelina orange is rapidly replacing Leng and Thompson navel oranges as an early season variety in the Riverland and Sunraysia. PIRSA research has shown that Navelina is high yielding, has better colour and produces larger fruit than other early season varieties.

A sanitation and disinfestation system has been developed to control unwanted insect pests and mould wastage on navel oranges; this has helped to boost exports to over 2 million cartons. A light petroleum oil has been registered for application to citrus on the packing line in combination with sanitisers to effectively reduce mould wastage.

A wasp has been introduced into the Riverland of South Australia to control mealy bug, a serious pest of citrus orchards. PIRSA scientists identified the parasite, which has reduced the incidence of mealy bug and the need for insecticide sprays and post-harvest treatments to remove sooty mould from export fruit.

Two new cherry varieties and a new apricot were launched.

A national 'Cool chain handling' project has been implemented to improve the quality of fresh stonefruit and vegetables through temperature management and best-practice handling systems. PIRSA is working with growers, packers, wholesalers, retailers and the air and sea freight councils to improve handling systems for fresh fruit and vegetables.

Programs have been implemented for managing western flower thrips and ash white fly, which can cause considerable damage to nursery and flower crops. A series of diagnostic services, nursery inspections and training programs were developed to facilitate accreditation of South Australian nurseries.

Livestock Systems

Cultivar Frontier, an early maturing annual pasture legume, has been selected to extend the range of use of balansa clover into drier areas than is possible with the cultivar Paradana. Large areas are under seed production in 1999, with a view to commercial release in autumn 2000. Frontier is suitable for grazing, hay production, seed harvesting with conventional grain headers, and self-regeneration following one to two years of cropping.

An aphid-resistant 'Jemalong' barrel medic has been bred in a hybridisation program. This involved multiple parents and backcrossing techniques to



Frontier, a new balansa clover cultivar. (Photo 100898)

produce a new cultivar of barrel medic provisionally protected under Plant Breeders Rights as cultivar Jester. Jester, to be commercially available in 2001, has good aphid resistance but is otherwise similar to the aphid-susceptible cultivar Jemalong, which is widely used by farmers.

New polymer technology has been used to facilitate the development of slow-release vitamin B12 supplement in sheep to offset 'illthrift' in low-copper grazing areas of Australia. A pharmaceutical company has been approached to commercialise the product.

The ability to collect eggs from juvenile calves and lambs, to produce embryos from these through in vitro fertilisation methods, is being investigated to speed the rate of genetic gain. These same techniques can also be used for genetic rescue of flocks and/or herds affected by serious diseases, e.g. OJD.

A trial has been initiated in the Eyre Peninsula pastoral zone to evaluate dark fibre contamination of wool resulting from imported African sheep genetics.

A three-year project to evaluate the profitability of three dryland dairy pasture systems was completed. It demonstrated that profitability can be improved at high levels of grain concentrate feeding with high stocking rates under optimal pasture use. A business plan describing the steps necessary to progress to a higher input dairy system was developed.

Information from an experiment to evaluate the effectiveness of the feed antibiotic virginiamycin, for control of acidosis in dairy cows fed high levels of grain, has been released; use of the antibiotic cannot be economically justified.

Restructuring of the Flaxley Dairy Centre, recommended by a ministerial review, has led to major support for projects at the centre through DAIRYSA, the regional producer group. Projects in two priority areas identified in the review (pasture production and feed utilisation) have been funded.

An initiative to identify the impact of subsoil constraints on agricultural productivity and sustainability in southern Australia, and to develop management strategies to ameliorate the problems, is being carried out as a collaborative project with CSIRO, the University of Adelaide, and the Department of Natural Resources and Environment, Victoria.

Five long-term cropping experiments in the State (spanning more than 70 seasons) have been summarised in two extension bulletins. The long-term impacts of management options such as direct drilling, continuous cropping and stubble retention can be very successful if best-practice recommendations are implemented.

A potentially cheap and simple method for predicting digestibility of feed ingredients for poultry by breath testing could revolutionise and replace current expensive feed evaluation techniques.

The poultry nutrition research team completed commercial contract research projects in nutrition (product development) for Novo Nordisk, Australian Wheat Board, Laucke Feeds (SA), Steggles, Finnfeeds International (UK), Dr Colin Hanbury (CLIMA), the University of Adelaide's Department of Agronomy and Farming Systems, University of New England, Ridley Agriproducts and Rhone-Poulenc Animal Nutrition (France).

PIRSA scientists defined the benefits of various mange treatments, completed Rural Industries Research and Development Corporation reviews on the influence of a dusty environment in the horse and chicken meat industry, and completed research to define the world's best practice for de-clawing of emus and strategies to minimise feather loss in layers.

Outcomes from the Pig Meat Hygiene Program have facilitated new export access for chilled pork to Asian markets.

SUPPORT SERVICES TO GOVERNMENT (output class 3)

Policy advice and support services (output 3.1)

PIRSA provided advice to Government on options for the national regulatory framework for genetically modified organisms and their products.

Contributions were made to development of the national policy framework and legislative options for a gene technology office. The agency participated in national activities to ensure that opportunities are realised within the context of human and environment safety standards. Advice was provided on the labelling of genetically modified foods.

FACILITATION SERVICES

(output class 4)

Facilitation planning services (output 4.1)

PIRSA has facilitated the planning and development of an innovative Plant and Food Biotechnology Centre which will attract research and commercial investment in the State. The centre will be established at the Waite precinct by the University of Adelaide with investment of \$2 million from Government. It will house 130 scientists and support staff.

SUSTAINABLE RESOURCES

The Sustainable Resources Group works with primary producers, resource managers and the community to encourage adoption of economically and ecologically sustainable natural resource management systems in South Australia. The group also has a responsibility to procure the most efficient use of natural resources that realise the greatest economic return. The main programs are Animal and Plant Control, Environmental Services, Farm Chemicals, Groundwater, Land Management, Irrigation and Catchment Management, Marine Habitat, Planning and Strategic Development, and Revegetation.

INFORMATION SERVICES

(output class 1)

Data and information products and services (output 1.1)

PIRSA promotes economically and ecologically sustainable natural resource management to ensure that South Australia maintains industry and community access to quality information and knowledge. Public inquiries for information are dealt with by staff at Murray Bridge and Belair State Flora locations; approximately 5000 requests were handled in 1998–99.

Land management information was provided to individuals and groups through publications, field days, seminars, workshops and the Internet. Technical and delivery support were given to the ABA's Better Soils project to enhance farmer understanding and management of soil.

Soil Conservation District Plans were released on CD and the Internet for the first time. The first report on measuring the sustainability of South Australia's agricultural industries in economic, social and environmental terms was publicly released and is available on the Internet. First draft annual reports on agricultural land condition were also produced.

The public profile of NHT and Landcare was promoted in the Rundle Mall as part of 'March the Month of Landcare'.

Thirteen fact sheets covering direct seeding, seed collection, windbreaks, revegetation in black cracking clays, and saltbush for non-saline soils, were revised and added to the Prime Notes CD. Technical manuals for land managers were developed on *Low Rainfall Alley Farming* and *Farm Forestry in the Adelaide Hills and Fleurieu Peninsula*.

A GIS display of infrastructure and logistic opportunities was prepared for the dairy industry.

Research and scientific services

(output 1.2)

PIRSA's research programs help South Australian primary producers develop leading edge technologies to enhance and maintain sustainability, productivity and profitability.

Several farming projects incorporating research are in progress. Funding was approved for phase 2 of the 'Low rainfall alley farming' project; the Murray Darling Basin Commission will provide \$821 000 over three years. Data collected will enable accurate estimates of water recharge under an alley system and potential recharge reduction within water catchments. Another project to identify, develop and use superior genetic material, has been particularly successful for the flat-topped yate eucalypts.

PIRSA won the 1999 Australian Water and Waste Water Association Environment Merit Award for its aquifer storage and recovery (ASR) projects at Andrews Farm near Smithfield, 'The Paddocks' at Salisbury, and Clayton town water supply on the shores of Lake Alexandrina. PIRSA staff have developed technology through these projects which enables surplus stormwater or stream flow to be captured and injected into aquifers for storage, and subsequent recovery for beneficial use. ASR has the potential to add significant value to State water resources by increasing the availability of water and improving salinity. South Australia is now one of the international leaders in this field.



The 1999 Australian Water and Waste Water Association Environment Merit Award. (Photo 46827)

Fujitsu has been engaged to manage the Mount Lofty Ranges pilot implementation project for the National Land and Water Resources Audit. Simple, achievable ways of evaluating the status of the State's natural resources will be developed at a regional level and an information network built across the whole of government.

Land Technologies Alliance, a research and development joint venture in spatial data management, landscape variability, plant root zone constraints, remote sensing and dryland salinity, has

been created by PIRSA, CSIRO, the University of Adelaide and the Department of Natural Resources and Environment, Victoria. A funding proposal for a Cooperative Research Centre will be prepared for consideration by the Federal Government in 2000.

PIRSA, in cooperation with National Parks and Wildlife South Australia, is participating in a national program on rabbit calicivirus disease, which is reducing rabbit numbers, particularly on rangelands. Significant localised regeneration of native plants, increases in kangaroo and wombat populations, and reduction of fox and feral cat populations have occurred, but there is still uncertainty that these changes will be sustained and become widespread.

STATE RESOURCE REGULATION SERVICES

(output class 2)

Resource regulation planning services (output 2.1)

PIRSA has developed two regional planning frameworks, one for the Mount Lofty Ranges and the other for the South-East Local Government Association area. These gather together information on the economic contribution of primary industries, future trends, issues relating to underpinning natural resources, and an overview of *Development Act 1993* matters affecting primary industries. They assist local government in development planning, and complement activities of Industry Development Boards, the State Food Plan strategies and Regional Investment briefs.

PIRSA assists the Animal Plant Control Commission to administer the *Animal and Plant Control (Agricultural Protection and Other Purposes) Act 1986*. Activities during the year included:

- A control program to contain the parasitic golden dodder weed to the upper reaches of the Murray River; an analysis demonstrated a 1:15 cost-benefit ratio for the program.
- Eradication of an infestation of golden dodder in irrigated lucerne in the South-East.
- Land management orders were placed with landowners who have Branched Broomrape on properties near Murray Bridge. A national eradication program has been developed for approval by the Standing Committee on Agriculture and Resource Management.
- The control work program was modified to ensure that government business enterprises do not receive the benefits of subsidised control work on roadsides adjoining their land, in line with the National Competition Policy.
- Biological control agents for boneseed and horehound were released, and further

investigations into biological control agents for horehound and Cape broom were supported.

Investigations were carried out into cadmium as a soil and food contaminant, and arsenic on former railway lines. A 50% reduction was achieved in unresolved chemical trespass complaints. The Chemical Container Management Plan for the Mount Lofty Ranges was activated.

SUPPORT SERVICES TO GOVERNMENT (output class 3)

Policy advice and support services

(output 3.1)

PIRSA provides support and advisory services to the Government on all aspects of natural resource management. During the year these included briefing notes, responses to ministerial inquiries and speech notes for the Minister for Primary Industries, Natural Resources and Regional Development.

At the national level, PIRSA supported ARMCANZ, SCARM, Murray Darling Basin Commission and various working groups in regard to water management, irrigation and salinity. PIRSA represented the State on the Agricultural and Veterinary Chemicals Policy Committee, Registration Liaison Committee, and the Residue Management Group.

The Minister is a member of the Murray Darling Basin Ministerial Council and the Chief Executive was appointed as a Commissioner on the Murray Darling Basin Commission. Major issues managed during the year include:

- auditing and monitoring the 'cap' on water diversions
- auditing the salinity impacts in the basin
- consolidating the management of the water resources of the River Murray under a new internal group called River Murray Water

Support was given to SCARM's Vertebrate Pests Committee and Australian Weeds Committee, the agroforestry Research Working Group 11, and the Ministerial Advisory Group on Agricultural Chemicals. The agency participated in development of State and national policy on Greenhouse through involvement in several groups.

A Marine Managers Forum was formed in partnership with the Department for Environment, Heritage and Aboriginal Affairs to focus on the implementation of the Marine and Estuarine Strategy released by the Government. The major issues are to develop management arrangements for the coast and to develop marine protected areas, with major input from the various stakeholders.

NHT continued to focus on development of regional infrastructure. Major projects were initiated at Willunga Hills Face, Wattle Range, Tod Catchment, Upper South-East and Upper River Torrens.

Integral components of these include benefit cost analysis, negotiation of cost sharing, works and technical support, and review and evaluation.

An inquiry into implementation of ecologically sustainable development by federal agencies was conducted by the Productivity Commission. PIRSA and the Department for Environment, Heritage and Aboriginal Affairs coordinated a State response that supported the Commission's findings with suggestions to improve the policy development processes, and coordination, monitoring and performance measurement of agencies' programs.

Advice was provided on the re-proclamation of the Yumbarra Conservation Park near Ceduna to allow mineral exploration.

Legislation development and review services (output 3.2)

PIRSA has taken an active role in monitoring and reviewing legislation covering a number of land control issues. A regulatory framework for integrated natural resources allocation and management, that supports economic development of primary industries and resources, is being prepared. Overarching legislation will be drafted to embrace existing Acts through the establishment of shared policies on community involvement, regulatory versus facilitative approaches, Aboriginal interests, development versus conservation, and implementation of the precautionary principle as the basis of legislation.

The legislative basis of agricultural use of farm chemicals was reviewed. A discussion paper was widely circulated in the community and a subsequent white paper produced.

The Gepps Cross livestock inspection service for proclaimed plants, State stock sales inspection policy, and the funding structure of Animal and Plant Control Boards were also reviewed. A Weed Strategy for South Australia, which aims to coordinate weed control in line with the National Weed Strategy, was released.

A draft discussion paper containing risk assessment, code of practice and methodology for dealing with new plantations was circulated for industry and public comment. A draft policy recommending the prohibition of sale of most types of willows was also circulated in response to concerns about hybrid willows.

An Olives Advisory Group representing industry, research and conservation was established by the Animal and Plant Control Commission with assistance from PIRSA; a policy to minimise the spread of olives from commercial plantations was developed.

Assistance was given to the Animal and Plant Control Commission in reorganisation of Animal and Plant Control Boards. The change, in response to local government boundary reform, involved

extensive consultation with boards and local government over a three-year period. PIRSA also facilitated a recommendation that the Marla, Oodnadatta and Marree Soil Conservation Boards become prescribed control bodies under the Animal and Plant Control Act.

A National Competition Policy review of the *South Eastern Water Conservation and Drainage Act 1992* was completed in February 1999, and recommended the continued operation of current legislation.

Portfolio program management services (output 3.3)

Efficiency in processing, distributing and managing NHT applications has improved following the adoption of a purpose-built database; the system was marketed for use by NHT in other States and has been accepted in Tasmania.

The one-stop shop operations established last year to manage the complex process of evaluating NHT applications and distributing the funds within 11 national funding programs continued; this is achieved through a whole-of-government NHT Secretariat located at PIRSA's Waite campus. A total of 495 applications for funding were received for 1999–2000 (267 new and 227 continuing), requesting \$52.8 million from NHT.

A project to evaluate and report on the effectiveness, efficiency and appropriateness of NHT activities was instigated, and carried out at State, regional and local levels. It included collaboration with agencies, auditing the outputs and outcomes of National Landcare Program projects, an evaluation strategy for projects on Aboriginal lands, and case studies. The outcomes from 10 pilot reviews completed in the South-East and Mount Lofty Ranges are being used to develop a formal process for individual projects within the State.

Infrastructure project services

(output 3.4)

PIRSA led the management of several infrastructure projects within the portfolio of the Minister for Primary Industries, Natural Resources and Regional Development. These were:

- Eyre Peninsula Regional Strategy
- construction of a drainage system for surface flooding and salinity management in the South-East
- rehabilitation of the irrigation supply headworks for the Loxton Irrigation District, including water delivery to a major new development at Loxton East
- rehabilitation of irrigation infrastructure on the Lower Murray
- construction of a drainage system in the Riverland at Qualco-Sunlands for salinity management and sustainable horticulture

FACILITATION SERVICES

(output class 4)

Facilitation planning services

(output 4.1)

Planning services to facilitate the analysis and assessment of land management opportunities and needs in South Australia were provided. The analysis identified market barriers, beneficiaries, and implementation, monitoring and evaluation strategies.

A database that defines economically and ecologically sustainable development potential for a variety of agricultural options in South Australia is being developed. Land use types and rainfall levels are defined on a regional basis, and data on crop production, yields and gross values since 1994 are recorded. Maps illustrate the economic value of livestock and agricultural production, enabling comparisons to be made on the financial returns, and identify PIRSA investment opportunities and resource constraints.

District Soil Conservation Board Plans prepared in the last 10 years are being reviewed in consultation with regional communities to better reflect understanding of resource management principles.

Regional natural resource management action is facilitated through implementation of Regional and Local Action Plans. PIRSA facilitated the drafting of guidelines on Local Action Plan preparation and Irrigation and Drainage Management Plans. Assistance was given to the Murray Darling and Mount Lofty Ranges community groups to identify natural resource management issues and prepare Local Action Plans.

Regional revegetation strategies are being developed under South Australia's State Revegetation Strategy. The Upper South-East strategy was launched in August and others are in progress, including those for the Mount Lofty Ranges and Eyre Peninsula regions.

Trade and market services (output 4.2)

The Australian Plant Export Development Program has continued to gain industry support with active participation by production nurseries and cut flower growers. Contributions have also come from the Industry Reference Group (with representatives from the nursery and cut flower industries, Australian Native Foods, and the Society for Growing Australian Plants), Adelaide Botanical Gardens, and Centenary Federation Committee. Plant assessment and trials of material have been completed for some of the species sent to Israel, and the next commercialisation phase is about to commence. Plant Breeders Rights are being negotiated in Israel and Australia to provide royalty protection for the products.

Management of chemical contaminants in meat and horticultural produce from South Australia is being

addressed through several projects, including promoting responsible use of chemicals on minor crops not subject to registration of chemicals.

PIRSA has designed a new hand-operated tool for cutting PVC drillhole casing below ground which leaves a clean square cut ideal for effective plugging and causes minimal site disturbance. Surface capping of abandoned mineral and groundwater drillholes is a requirement of the *Mining Act 1971*. The tool is undergoing final development and will be produced commercially.

Training and education services

(output 4.3)

PIRSA hosts training programs in sustainable land management, with Dairy Property Management Planning workshops attracting 540 participants during the year. Irrigation training and skilling were organised in all irrigation districts through appropriate programs including Rivercare (Murray River) and six-step irrigation; these attracted over 100 people. More than 1100 people participated in benchmarking and scheduling training programs.

New approaches for workshop delivery and industry ownership were investigated in:

- pastoral wool production
- wine grapes
- indigenous land corporation and indigenous land holders
- apple and pear growers
- citrus growers
- business skills and best practice
- Department for Environment, Heritage and Aboriginal Affairs' Bushcare program

Farmcare modules suited to livestock producers were developed, and included material for customers whose first language is not English. Targeted investment projects for Bushcare were developed in conjunction with the Department for Environment, Heritage and Aboriginal Affairs.

The 'Landcare Focus Schools' program (funded under the NHT) finished this year with over 20 schools developing curricula on environmental education. A support group has been established (Environmental Landcare Education Network Schools) and, in conjunction with the new NHT 'Cluster Schools' program, aims to assist schools to join with their communities in implementing local on-ground works.

Anne Frodsham, PIRSA's Nursery Industry Development Officer, received the 1998 Award of Merit from the South Australian Nursery and Landscape Industry Association. She was honoured for her significant contributions to nursery accreditation, educational programs and industry liaison on pest management issues.

MINERAL RESOURCES

The Mineral Resources Group is responsible for facilitating mineral exploration and development of the State's mineral resources within an ecologically sustainable framework for the benefit of all South Australians. It provides geoscientific research and specialist services as part of the process to acquire and update geological, geophysical and engineering data. PIRSA has undertaken a series of pre-competitive exploration initiatives to stimulate industry exploration and promote long-term development of the State's mineral resources. The group is also responsible for industry regulation, legislative development and review, and policy development.

INFORMATION SERVICES

(output class 1)

Data and information products and services (output 1.1)

Effective marketing of the State's mineral resources is essential to ensure that the State obtains maximum value for these resources. The focus for the year was TEISA, a \$23.2 million, four-year exploration initiative. The Hon. Rob Kerin, Deputy Premier and Minister for Primary Industries, Natural Resources and Regional Development, officially launched TEISA at the Resources Week '98 Conference held on 3 December. The money will be spent over the years 1998–2002 on a phased, regional exploration strategy for minerals, petroleum and groundwater aimed at accelerating resource exploration. The comprehensive, accurate and relevant geoscientific data obtained will encourage private companies to focus their exploration efforts on prospective areas in South Australia in preference to other States or overseas.

The targeted areas are the Musgrave Block in the far northwest, southern Gawler Craton (including Eyre and Yorke Peninsulas), eastern Adelaide Geosyncline, Curnamona Province and areas of South Australia's key sedimentary basins (including the Murray and Cooper Basins).

TEISA and the mineral prospectivity of South Australia were promoted at the annual Prospectors and Developers Association of Canada Convention and Trade Show. Other TEISA promotional activities included release of *The new frontier* brochure, advertising and editorial in key industry and research publications, and holding industry information seminars and meetings to facilitate the design of TEISA programs and promote results to date.

Significant improvements were made to the state-wide geoscientific database (drillholes, geochemistry and mineral deposits; SA_GEODATA) structure including implementation of graphical user interfaces for components such as

the drillhole database. A major restructure of the mineral deposits component is near completion. Automated processes for producing components of geoscientific data sets were developed. Processes to enable direct entry of field observations to a database on hand-held computers are being developed. A total of 1048 exploration drillholes from 127 reports were added to the drillhole database.

Agreement was reached with other State and federal geoscience agencies for a common format for receipt of digital data. This will be used as a basis to prepare PIRSA's guidelines to facilitate industry submission of exploration data.

Several avenues are being investigated in using new forms of remote sensing data to assist geological mapping and mineral exploration. In particular, airborne hyperspectral data have been used to assist exploration for magnesite in the Willouran Ranges (north of Lake Torrens).

A new State total magnetic intensity merge is 25% complete. An upgrade of the State gravity database is 15% complete. Seventeen relinquished company data sets were verified and added to the airborne geophysical database. A paper was presented at the Australian Society of Exploration Geophysicists Conference on the use of 256 channel radiometrics in geological mapping.

New or updated information sheets were prepared on diamonds, opal, semi-precious stones, and heavy mineral sands in the Eucla Basin.

Research and scientific services

(output 1.2)

TEISA

A management team was established for the TEISA Minerals Program. Achievements included approval of acquisition plans, the design and application of a project ranking system, and the public tender and award of four contracts (value in excess of \$800 000) for airborne and ground-based geophysical surveys.

Four airborne surveys commenced during the year and tenders for a fifth in the Renmark region (Chowilla) were evaluated. The Southern Gawler Craton surveys over Eyre and Yorke Peninsulas were 90% complete at 30 June; over 74 000 line kilometres had been flown, with 34 634 kilometres remaining. Eight companies participated, acquiring detailed infill and extension flight lines. The regional digital data will be released in stages, commencing in September 1999. The Kanmantoo survey was completed in the Mannum region; 15 587.68 line kilometres were acquired including infill data for two tenement holders, covering almost half of the survey area. The Stuart Shelf (west of Lake Torrens) and Oodnadatta surveys were 56% complete at 30 June; 30 106 line kilometres had been flown, with 23 641 kilometres remaining. The

Flinders Ranges survey by the Australian Geological Survey Organisation (AGSO) was completed as part of the National Geoscience Mapping Accord and TEISA; 132 938 line kilometres of data were acquired.

Gravity surveys over two areas in the Curnamona Province, north of Olary, were completed; 1636 gravity stations were acquired on a 1 x 1 kilometre grid.

A project to improve the knowledge of groundwater resources in fracture zones (lineaments) and Permian–Tertiary palaeochannels in the northwestern Gawler Craton commenced.

Negotiations with the Anangu Pitjantjatjara Council regarding commencement of the various projects in Pitjantjatjara lands have progressed slowly and all TEISA projects planned for the Musgrave Block will be deferred to Year 2 (1999–2000).

Geological Survey

The Geological Survey Branch generates, manages and interprets geoscientific information (including geological, geophysical and remote sensing data). A new version of the State 1:2 000 000 scale geological map is now available digitally and as hardcopy. The State SA_GEOLOGY digital coverage — a

Geophysical surveying in the Mount Fitton region, northern Flinders Ranges.
(Photo 46670)



compilation of the best regional geological mapping for each area — is 90% complete for stage 1 (cf. 82.5% in 1997–98). Data capture for most of the remaining area has commenced, with an expected stage 1 completion date of June 2000. A state-wide collection and database of all petrological thin sections held by PIRSA is being assembled.

Curnamona Province

The Curnamona Province Program incorporates the Broken Hill Exploration Initiative (BHEI) and aims to provide a new generation of geoscientific data for the Broken Hill – Olary region as a basis for more effective mineral exploration by industry and to help secure the future of Port Pirie and Broken Hill. The BHEI is a joint program involving PIRSA, New South Wales Department of Mineral Resources and AGSO.

A conference and field workshop held at Broken Hill in October 1998, to share information on recent developments in the region, attracted strong industry



participation despite the current downturn in mineral exploration. This interest can be directly attributed to the perceived potential of the Curnamona Province, recent exploration successes, and the BHEI. Detailed geological mapping continued at 1:25 000 and 1:100 000 scale in the Olary district. Preparation of the CALLABONNA 1:250 000 map for publication is nearly complete. Collaborative research is in progress on geochronology and geochemistry of the Willyama Supergroup and intrusives, copper–gold mineralisation and associated alteration and regional lithostratigraphy.

Gawler Craton

Geological mapping and compilation of LINCOLN and MAITLAND has been completed. TEISA airborne geophysical data will be used to interpret the basement geology of the sediment-covered portions of these areas. Mapping of CHILDARA is in progress.

Collaborative research is in progress on the Gawler Range Volcanics, Hiltaba Suite granitoids, mineralisation in the Yarlbirinda Shear Zone, and tectonic history of the craton to assist mineral exploration.

Sedimentary terranes

A State palaeochannels map has been completed and is available in digital or hardcopy form. Explanatory notes for GILES and compilation of the OOLDEA geological map are near completion. Geological mapping of MARREE is in progress. A study of Otway Basin ostracodes (fossils) has been completed. Foraminiferal and palynological investigations for a sequence stratigraphy study of the Gambier Basin are 40% complete. Collaborative research is in progress on the Tallaringa and Garford Palaeochannels.

Adelaide Geosyncline

The PARACHILNA map and accompanying explanatory notes were published. Geological mapping is in progress on BURRA, ADELAIDE and BARKER. Investigations on the latter two sheets have concentrated on the Cambrian Kanmantoo Group; the volcanics and intrusives are showing a more diverse history than previously recognised. Structural and stratigraphic controls on mineralisation are also being targeted.

The stratigraphic nomenclature of the Adelaide Geosyncline has been revised and aspects of the tectonic history of the Clare region re-interpreted. A paper on the Adelaide Geosyncline and its significance in Neoproterozoic continental reconstruction has been submitted to an international journal.

Regolith

Together with the Cooperative Research Centre on Landscape Evolution and Mineral Exploration, PIRSA is undertaking geological and geochemical investigations of regolith in the Gawler Craton to assist industry mineral exploration. Final client reports were prepared for Birthday and Boomerang gold prospects. Papers were published on silcrete as



Prime Minister John Howard opening the Olympic Dam Expansion Project. (Photo 46767)

a potential exploration sampling medium, exploration in the Mount Gunson area using regolith geochemistry and relationship to gold exploration, and aeolian dust in the Gawler Craton. Research is in progress on the Challenger gold prospect, Moonta copper district, Mount Gunson copper deposit and Glen Osmond silver–lead deposits.

Mineral assessment

Evaluation and subsequent promotion of selected South Australian mineral resources continued. At Mount Compass, analytical results from drilling in the previous financial year resulted in delineation of at least five discrete glass sand deposits. Detailed mapping has confirmed a major magnesite resource in the Leigh Creek – Witchelina region and a project has been initiated to promote the resource. A comprehensive survey of sandstone resources in the Mid North has led to lease applications for future quarry sites. Core and cuttings from old drillholes at the Brukunga Mine were sampled to assess any residual gold potential. Reports were released on *Graphite markets* and *Refractory use of Uley graphite* (both joint research with CSIRO), and *Industry standards — physical properties of construction sand*. An industry excursion was held to promote diamond and kimberlite exploration in the Terowie–Orroroo region.

STATE RESOURCE REGULATION SERVICES

(output class 2)

Resource regulation planning services (output 2.1)

Exploration

Assistance is provided to industry via information sheets, guidelines and verbal advice to facilitate

mineral exploration and ensure acceptable practices. Cooperation between industry, National Parks and Wildlife South Australia (Department for Environment, Heritage and Aboriginal Affairs) and PIRSA in regard to mineral exploration in parks and reserves has ensured acceptable exploration and rehabilitation practices. A database of access tracks (existing and under rehabilitation) has been established for the Yellabinna and Nullarbor Regional Reserves to facilitate best practice mineral exploration.

Development

PIRSA has a key role in ensuring responsible and environmentally sound development of South Australia's mineral resources by acting as the lead agency in coordinating the many interactions between Government and the individual project proponents. The agency facilitates the thorough, timely assessment of all aspects of the mining proposals and the grant of necessary mining tenements and other approvals.

The Olympic Dam Expansion Project was officially opened by the Prime Minister on 26 March. Expansion of the mine and processing facilities, which commenced in January 1997, was completed ahead of schedule in the first quarter of 1999 at a final cost of ~\$1.94 billion. WMC's capital investment in South Australia now exceeds \$3 billion. A key focus of the expansion continues to be excellence in environmental protection in addition to maintaining the strong record achieved for safety and health of workers and members of the public. The company has moved rapidly to increase production towards the nominal annual rate of 200 000 tonnes of copper, plus associated uranium, gold and silver. The expansion project will greatly improve the cost competitiveness of the Olympic Dam operation, placing it in the bottom cost quartile of all copper producers.

The Beverley uranium deposit, which lies beneath the Lake Frome plains ~530 kilometres north-northeast of Adelaide, was detected in 1969, but subsequent development proposals have been frozen due to external and Federal Government influences. Heathgate Resources acquired the property in 1990 and has investigated mining using an advanced in situ leach method. Exhaustive environmental impact assessment by both the State and Federal Governments has now been completed and confirmed that all health and environmental protection issues arising from development of the in situ leach mining project can be effectively handled by the South Australian regulating agencies using existing regulatory processes. Following this environmental clearance, PIRSA granted Heathgate Resources mining tenements for Beverley, and imposed detailed conditions to protect the environment and safeguard the health and safety of workers and the public.

A high-quality granite deposit near Poondana Rock, north of Wudinna on Eyre Peninsula, has attracted the interest of overseas investors. The District Council of Le Hunte is working to gain the necessary approvals to mine the granite. An application to disturb the area has been allowed by the Minister for Aboriginal Affairs, but a Native Title Agreement still needs to be negotiated.

The Extractive Areas Rehabilitation Fund (EARF) provides funding to rehabilitate land disturbed by mining, to implement measures designed to prevent or limit damage or impairment of the environment, and to research measures to reduce environmental damage or impairment resulting from mining operations. Forty-three projects totalling \$922 574 were approved during the year, the largest approval being \$248 471 for rehabilitation of a large limestone quarry near the Murray River in Murray Bridge. Updates on the EARF are provided in the *MESA Journal*.

Licensing services (output 2.2)

During the year, 311 exploration licences and 161 other mining tenements were renewed. A total of 89 mineral exploration licences and 103 other mining tenements were granted and registered, and 1855 precious stones tenements were registered on behalf of opal miners. The mining tenements were granted after extensive consultation with the public, landowners and other agencies. Environmental issues identified during the consultation process are addressed through special conditions imposed on the tenements.

Seven Native Title Agreements were registered (compared to four last year) and 29 notices lodged to commence native title negotiations.

At 31 December 1998, 152 licensees held 413 licences, with 319 415 square kilometres (32%) of the State under exploration licences; these measures of activity are 10–20% lower than for the previous year. The number of new licences granted decreased from 227 to 100. In 1998, South Australia accounted for 4.5% of the total annual Australian mineral exploration expenditure, exceeding only Victoria with 4.2% and Tasmania with 1.3% (*Australian Bureau of Statistics Catalogue 8412*).

Approximately 95% of 138 applications for exploration work approval on mineral exploration licences were processed within the target time. Eighty-four per cent of 311 exploration licence renewals received were processed within the target time.

Compliance services (output 2.3)

To ensure that mineral exploration and mining operations are carried out to standards the community accepts, activities must comply with Regulations under the *Mining Act 1971* and the *Mines and Works Inspection Act 1920*. In addition, special conditions on mining tenements are designed

to protect the environment from the adverse impacts of mining. All mines must be operated in accordance with an Approved Mining Program which includes mine plans, measures to ameliorate the environmental impacts created by mining, progressive and final rehabilitation, and mine closure.

PIRSA carries out regular inspections and audits of exploration activities to ensure that they are carried out to standards specified in guidelines and licence and work-approved conditions. Mining operations are inspected for compliance at regular intervals and prior to renewal transfer, expiry or cancellation. The holders of mining tenements (except extractive mineral leases) are required to enter into a bond prior to commencing to ensure that the obligation to rehabilitate land disturbed by mining is satisfied. During the year, 38 mining programs were approved; 757 mining tenement inspections and 5312 precious stones claim (opal fields) inspections were undertaken; eight bonds totalling \$26 500 were lodged.

Technical reporting (geoscientific data submission) for over 400 mineral exploration licences were processed; all reporting was of acceptable standard.

In 1998–99, 93% of mineral exploration sites inspected (28 of 30) were in compliance with approval conditions and rehabilitation requirements; all noncompliance cases requiring corrective action were resolved. Sixteen inspections were undertaken of operations within Parks and Regional Reserves and other environmentally sensitive locations, with 100% complying. Eighty-eight per cent of the 757 operating mine and quarry sites inspected complied; 77% of the 94 which did not comply have now been rectified. Eighty per cent of the 5312 precious stones tenements sites inspected complied; 79% of the 1040 which did not comply have now been rectified.

SUPPORT SERVICES TO GOVERNMENT (output class 3)

Policy advice and support services (output 3.1)

PIRSA provides policy and technical advice to the Government on all aspects of the minerals industry. Many speeches, briefing notes and responses to ministerial inquiries were prepared during the year for the Premier, and the Deputy Premier and Minister for Primary Industries, Natural Resources and Regional Development.

Statistical analyses were undertaken on exploration expenditures, royalty collections and performance of the South Australian minerals industry. A review of the classification of mineral products is continuing to maximise the usefulness of mineral production data.

Economic analyses were provided as inputs to the prioritisation of TEISA project proposals, PIRSA program evaluation, assessment of the Beverley Environmental Impact Statement and facilitation of the Challenger gold exploration project.

PIRSA represented the State on the Australian and New Zealand Minerals and Energy Council (ANZMEC) Ministerial Council meeting and four Standing Committee of Officials meetings held during the year. In addition, briefings for out-of-session decisions were completed and representation on the Taxation Review Task Force and the Minerals Legislative Subcommittee was provided.

Legislation development and review services (output 3.2)

Regulations associated with the State's mining legislation were redrafted, reviewed, and agreed with industry and in place prior to their revocation date of 1 September 1998, as required under the Government's *Subordinate Legislation Act 1978*.

The *Statutes Amendment (Mining Administration) Act 1999* was enacted on 1 April 1999. It removed several administrative anomalies within the Mining Act and introduced a Register for recording Mining Native Title Agreements in both open and confidential formats.

The Statutes Amendment (Native Title) Bill 1998, for which Crown Law is the lead agency, is awaiting presentation to Parliament. When enacted, accreditation will be required from the Federal Government, which will assist the negotiation of Native Title Agreements and speed up the granting of tenement applications. South Australia is still the only State to have an approved alternative native title scheme for grant of exploration licences.

After lengthy consultation with industry and other interest groups, the Government has approved the Mining (Private Mines) Amendment Bill 1999 which now awaits introduction to Parliament. This legislation ensures that private mines are managed more effectively.

Review of the Mining Act continued through a series of amendment bills applying to those parts requiring updating. A Cabinet Submission has been drafted seeking a bill to amend royalty provisions in three areas — changing the assessed value of a commodity, on which royalty is determined, from the delivered value to the ex-mine value; allowing the assessment of royalties to be determined other than according to the weight or volume of minerals recovered; and introduction of penalties for late or non-payment of royalties. Once approved, the bill will be widely circulated for consultation and comment prior to finalisation for submission to Parliament.

The Offshore Minerals Bill 1999 has been introduced to Parliament and awaits further debate

prior to approval and enactment. This bill seeks to establish a legislative regime to govern mineral exploration and mining in South Australia's coastal waters and mirrors equivalent federal legislation. A common mining regime will apply for offshore minerals within Australia's coastal waters when all States and the Northern Territory enact their complementary legislation.

Reviews under the National Competition Policy of the Mining Act, *Opal Mining Act 1995*, Mines and Works Inspection Act, and *Roxby Downs (Indenture Ratification) Act 1982* have commenced with assistance and advice from Crown Law being provided to a Review Board made up of representatives from PIRSA, the Department for Environment, Heritage and Aboriginal Affairs, and industry. These are expected to be completed by the end of 1999.

Infrastructure project services

(output 3.4)

The South Australian Steel and Energy (SASE) Project, which aims to produce low-cost pig iron from the State's coal and iron ore resources, was significantly progressed by changing its status from a joint venture to that of a company. The change was required under Federal Government regulations to take advantage of a \$6.5 million Research and Development Grant, awarded to the Ausmelt pig iron technology demonstration plant at Whyalla. The establishment of SASE Pty Ltd was marked at a signing ceremony between the joint venture partners — Ausmelt, Meekatharra Minerals and PT Krakatau Steel — and the South Australian Government on 12 March. The Government decided that the project's commercial objectives would be best served if it did not continue as a direct partner and, along with all the assets and activities of the joint venture, the iron ore tenements previously held by the State have been transferred to the SASE company.

Penrice Soda Products is Australia's sole producer of soda ash and has been supplying virtually the entire Australian market for over 50 years. The company's three South Australian sites are at Angaston, Dry Creek and Osborne. A Crown Agreement and the State's first Special Mining Enterprise Agreement were executed in September 1998. These recognise that Penrice's salt operations are of major economic significance to the State and contain details of obligations on behalf of the company and the State Government while providing security for future operations.

Brukung Mine, 5 kilometres northeast of Nairne in the Mount Lofty Ranges, was developed in the early 1950s to produce pyrite (iron sulphide) for fertiliser production. Closure of the mine in 1972 left large quarry faces, massive waste rock dumps and tailings from the flotation treatment plant. The State Government took responsibility for the site in 1976 and, since then, has taken action to reduce the



Re-dissolving salt at the Penrice Dry Creek saltfields prior to pumping to the plant at Osborne. (Photo 45133)

breakdown of pyrite and acid leachate from leaving the site. PIRSA has assumed responsibility for managing the remedial projects which include ongoing operation of the water treatment plant to neutralise acid-water draining from the site into Dawesley Creek. The use of biosolids in conjunction with clay topsoil for capping the tailings and the waste rock was suspended in response to concerns raised by community groups. Liming the flats along the creek, and fencing to exclude stock from contaminated creek water, has commenced. The Brukung Remediation Board, which replaces the Brukung Task Force, was formed to increase community representation.

FACILITATION SERVICES

(output class 4)

Facilitation planning services

(output 4.1)

Extensive liaison with Aboriginal communities continued, with emphasis on exploration access to Aboriginal lands and completion of a Native Title Agreement over the Lambina opal field.



Signing of the Lambina Native Title Mining Agreement by representatives of the Yankunytjatjara Council, Antakirinja Land Management Aboriginal Corporation and South Australian Opal Miners Association Inc. (Photo 46347)

PETROLEUM

The Petroleum Group's mission is to facilitate the generation of royalty income, wealth and jobs through efficient management of the State's petroleum rights on behalf of the people of South Australia. The group achieves this through three key roles: attracting private sector exploration investment that will lead to new commercial petroleum resource discoveries; regulating petroleum exploration and development activities in a manner acceptable to both the community and industry; and providing policy advice to Government on all aspects of managing the petroleum resources of South Australia.

INFORMATION SERVICES

(output class 1)

Data and information products and services (output 1.1)

Effective marketing of the State's petroleum rights is essential to ensure that the State obtains maximum value for these rights. An active and competitive worldwide market exists, so it is important that PIRSA market nationally and internationally. The promotional focus for 1998–99 was the oil and gas producing Cooper Basin in the northeast of the State, as the exploration area expired without right of renewal in February 1999; the Petroleum Exploration Licences (PELs 5 and 6) had been held by Santos since 1954. Applications for approximately 30 exploration licences in the area are being sought in three stages. The Bight and Duntroon Basins in the Great Australian Bight region were also promoted to coincide with the release of eight areas for exploration.

Two overseas visits were made to attend three major industry conventions and exhibitions (AAPG Convention, North American Prospectors Expo '99, and Canadian Petroleum Prospect Exchange) to promote South Australian exploration opportunities. Private seminars were also presented to key companies in Houston and Calgary. A total of 112 North American explorers and consultants requested follow-up information and have been added to the petroleum contacts database. Promotions were carried out at three Australian industry conferences (APPEA, ASEG, and PESA (Queensland Branch)) and gathered 50 contacts. PIRSA organised two seminars in Australia, specifically showcasing opportunities in the Cooper Basin. The Cooper 99 Seminar, held over two days in Adelaide in October 1998, was attended by 150 delegates. A half-day Cooper Basin seminar held during the APPEA Conference attracted 29 industry delegates.

A comprehensive pricing policy document was prepared, including examples of costs of typical data requests of basic and value-added data sets. Four price list brochures have been distributed to industry



PIRSA booth at the AAPG Convention held in San Antonio, Texas, April 1999. (Photo 46830)

via conferences, targeted promotions and PIRSA's web site.

A total of 204 explorers and 113 consultants, academics and other government organisations have requested information on Cooper Basin opportunities over the past three years as a result of PIRSA promotion. Their details have been added to the petroleum contacts database, which is used to produce targeted mailing and fax lists. Ninety-eight requests for archived geophysical data sets were processed and forwarded to explorers in the past year. Eight publications and two CDs were produced to promote South Australian petroleum rights. Two South Australian supplements were featured by trade journals, and advertisements and a number of smaller articles on South Australian news were published in Australian and international industry journals. Nine copies of the Petroleum Exploration and Production System — South Australia database (PEPS-SA or PEPS) were sold to industry customers this year; four were to new clients, and five were renewals.

A major TEISA project commenced in January involving the digital capture of all appropriate petroleum data (company geological, seismic and well completion reports and the Petroleum Register) to facilitate provision of data to clients and enable proper storage of this unique data set. This four-year project is the single largest petroleum project under TEISA. The acquisition plan, tender and pilot project were successfully completed. To date, over 80 open file well completion reports have been scanned, with priority given to wells drilled in the 1998 and 1999 Cooper Basin acreage release blocks. Tenders have been called to scan all archived hardcopy seismic sections in the project. Another project to load all conventional open hole well logs into Schlumberger's Geoframe, the major software package used by industry, was initiated and will start in July 1999.

As a result of PIRSA's promotion of Cooper Basin exploration opportunities, 41 applications for 11 blocks (CO98A to K) were received, with a total investment of \$45 million over the next five years.

This investment compares to approximately \$15 million spent by the former licensees of PELs 5 and 6 in the same areas over the last five years. Such industry response is excellent in the face of low oil prices, a proposed higher royalty rate and native title issues.

Approximately 264 600 square kilometres of the State are regarded as prospective for petroleum and, at 31 December 1998, 82% was under PEL or application. With the expiry of PELs 5 and 6 on 28 February 1999, this area dropped to 73%. This is likely to increase as applications are received for the proposed 31 blocks in the Cooper Basin.

Research and scientific services

(output 1.2)

Six wide-ranging petroleum projects were initiated for the TEISA Petroleum Program. These have been designed to assist and influence industry in the search for petroleum in South Australia and provide greater flexibility of gas supply. The projects include: geological studies in the Cooper, Otway, Warburton and Officer Basins; identification of possible sites for underground gas storage beneath the Adelaide Plains; capture of all appropriate petroleum data in digital format (see output 1.1); and partial funding of a petrophysics professorship at the National Centre for Petroleum Geology and Geophysics, focusing on targeted research that will benefit the local petroleum industry and management of the State's petroleum resources.

Research in 1998–99 concentrated on the Cooper–Eromanga hydrocarbon province and on rocks of the underlying Warburton Basin. This province was emphasised because the expiry of PELs 5 and 6 has led to a large number of new companies applying for phased block releases. The research was a key promotional tool for Cooper Basin acreage and the basis for the major publications — *Cooper Basin folio* and *The petroleum geology of South Australia, vol. 4: Cooper Basin* — produced during the year. Research highlights included studies on:

- Cooper–Eromanga source rocks; a collaborative project with AGSO, and part of the National Geoscience Mapping Accord.
- Recognition of new Warburton Basin reservoir plays underlying the Cooper Basin.
- Warburton Basin fracture analysis; carried out in collaboration with post-doctoral research at the National Centre for Petroleum Geology and Geophysics.
- Interpretation of new aeromagnetic and other geophysical data sets in the Cooper Basin region; a collaborative project with AGSO and Whitehorse Geoscience.
- Consolidation of regional C and P horizon structure contour maps; a collaborative project with equivalent agencies in Queensland, Northern

Territory and New South Wales, and part of the National Geoscience Mapping Accord.

- Investigation of the effects of fossil peat deposits on distribution and reservoir quality of the Cooper Basin.
- Sedimentology of Triassic fluvial deposits and palaeosols of the Cooper Basin.

Other work included:

- A gravity survey between Lake Torrens and the Flinders Ranges; a collaborative project with Beach Petroleum and University of South Australia.
- Two studies to provide scientific support for the development of regulatory objectives; industry was required to carry out three studies with the same aim.
- Market research in the form of a biennial industry survey commenced to measure PIRSA's performance and guide future research and marketing directions. A consultant has been selected and approximately 30 Australian petroleum explorers and consultants will be interviewed.

STATE RESOURCE REGULATION SERVICES

(output class 2)

Resource regulation planning services (output 2.1)

Guidelines were developed, through a public consultation process, for assessment of the environmental significance of industry activities and their consequential impact. These inform stakeholders of the regulatory standards and make transparent the regulatory processes. Copies were issued to about 20 organisations and were published on PIRSA's web site. Two workshops and/or symposiums were held to assist industry, community and other government agency stakeholders to better understand the regulatory process and importance of achieving a culture of compliance. Eight meetings were held with operators during the year to discuss regulatory matters.

A task force, comprising staff from PIRSA and the Department for Environment, Heritage and Aboriginal Affairs, has been formed to develop and implement a management plan for petroleum activities in the Coongie Lakes area. A program is in place to undertake a public consultation process and complete the management plan in late 1999.

A revision of seismic line rehabilitation criteria is in progress, particularly relating to goal attainment scaling assessment from the air, in response to the outcomes of an environmental study in the Cooper Basin. Tenders have been called for an ecological study of seismic impacts on invertebrates in the region to validate assessment criteria.

Work program bids for the new Cooper Basin applications were determined using a new bid assessment procedure developed to ensure a fully accountable and transparent process.

PIRSA has taken the lead in developing industry use of Australian Standard AS 2885 to facilitate more effective management of the risks to the community created by pipeline operations. A number of workshops and/or symposiums, supported by industry, have been organised and attended by over 60 industry and government personnel involved in the South Australian pipeline industry.

Licensing services (output 2.2)

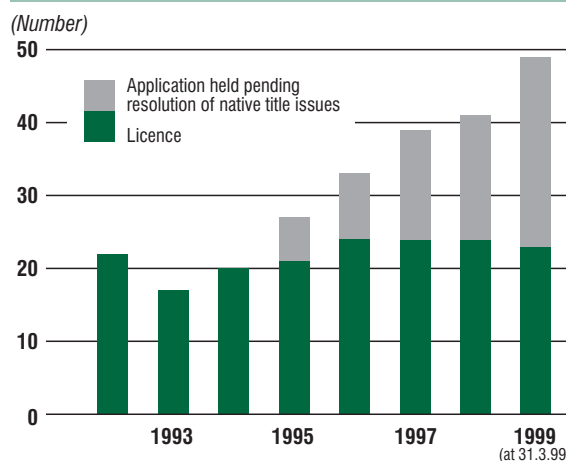
Managing the award of licences for petroleum exploration, and approval of consequent activities, is carried out to ensure that there is a secure legal title for petroleum rights and that activities are undertaken in a manner acceptable to the community. An application is on offer for an offshore exploration tenement in the Otway Basin in the South-East of the State (area S98-1). A further eight offshore areas have been released for application in the Bight and Duntroon Basins with closing dates in October 1999 (S99-7 and S99-8) and April 2000 (S99-1 to S99-6). A special prospecting authority was granted for a six-month term over the Bight and Duntroon Basins to allow a non-exclusive seismic survey to be undertaken.

A total of 137 applications for licences (43 exploration, 92 production, and two pipeline) were received. Twenty-nine of these were granted within targeted timeframes. Ninety-one of the production licence applications were submitted as a result of the expiry of PELs 5 and 6; 26 have been offered or granted and a further 65 are being processed. Seventy-one per cent were not processed within the usual time frames due mainly to issues concerning licence award criteria under the *Petroleum Act 1940*; it is anticipated that these will be resolved in the coming year. A production licence has also been granted in the Otway Basin over the Redman Field.

The exploration licence applications were for 13 licence areas. Only one of these could be granted within the targeted timeframe; the remaining successful applications (92%) cannot be granted until native title issues are resolved. Twenty-five applications for exploration licences (13 from previous years) are held pending resolution of native title issues (Fig. 1). Native title negotiations, pursuant to the Commonwealth *Native Title Act 1993*, have been instigated as a priority for the 11 Cooper Basin blocks (CO98-A to K) under application.

Sixteen seismic survey applications were received and all were approved within the target timeframe of six weeks. Forty well approvals were submitted and 95% were approved within the target of less than six weeks. One quality management system (well approval procedure) non-conformance was recorded.

Fig. 1 SA petroleum exploration licences, including applications



Fourteen well abandonment procedures were approved.

Regulatory objectives to be met by operators whilst carrying out their activities, and the criteria by which achievement of the objectives will be assessed, are developed through an effective public consultation role. The consultation process is part of the preparation and approval of a declaration of environmental factors and establishment of codes of environmental practice. Fifteen declarations and codes were approved during the year. These included two in connection with construction and operation of high-pressure gas pipelines.

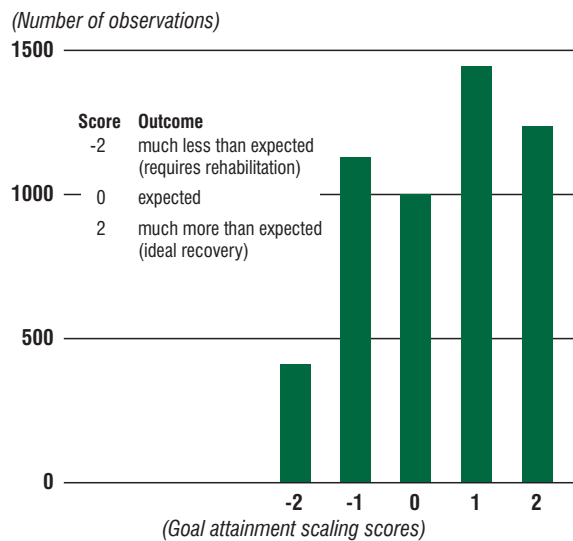
Compliance services (output 2.3)

To ensure that activities are carried out to standards the community accepts, industry must comply with the Petroleum Act and Regulations. The Petroleum Group evaluates the performance of operators to enable it to give an assurance to the Deputy Premier and Minister for Primary Industries, Natural Resources and Regional Development that all operators carrying out activities on petroleum licence areas are complying with the regulations to an acceptable degree and, where activities are continuing, are likely to continue to comply to an acceptable degree.

PIRSA carries out a program of checking of both achievement of regulated outcomes and of management processes in place to verify that the reports, received from each operator demonstrating their compliance with the regulations, have a sufficient degree of integrity. Eight out of 16 seismic programs recorded were inspected for compliance in the field. A major seismic line monitoring program was undertaken in the Cooper Basin preceding the expiry of PELs 5 and 6. An aerial inspection of over 6000 kilometres of historical and recent seismic lines within these licences resulted in the recording of over 5000 assessment scores (Fig. 2). About 250 wellsites were inspected to determine compliance with

Fig. 2 Environmental assessment of seismic lines in the Cooper Basin, SA, February 1999

The seismic lines were recorded during the period 1958–98. -2 scores are mostly from early 1980s lines recorded in tableland or gibber plain land systems.



various environmental objectives. The number of well and seismic inspections was higher than normal to ensure that all sites included in the PELs 5 and 6 expiry area were of acceptable standard. PIRSA also reviewed 20 facility, pipeline and environmental reports, required by regulation, for sufficient standard to achieve compliance with regulations. PIRSA has developed an integrated database–GIS to support the regulatory effort and make data readily accessible.

Five environmental reports relating to the operations and outcomes of the seismic survey in the Coongie Lakes Control Zone were made available to the public. The reports concluded that the survey was undertaken with a high level of environmental



Comparison of a new seismic line at left with the straight 1977 line, Coongie Lakes, view south. (Photo 46518)

awareness and management, and that there was minimal variance from the strict conditions imposed. Only positive comments have been received in regard to the monitoring and reporting of the operation.

All royalties were paid on time throughout the year. Less than 1% of licensing fees were not paid by the due date, but systems in place ensured that all fees have since been received.

During 1998–99 the following breaches of the Petroleum Act and Regulations occurred. Six (15%) wells commenced drilling prior to gaining approval (regulation 121). Approximately 23 wells have been cased for over 10 years and 155 wells have ceased production, but have not been abandoned (regulation 220); these issues are now being addressed by the operator. Two (14%) wells were abandoned prior to obtaining approval (section 65). A total of 71 well completion reports were due for submission from industry over the period, but only 2 (3%) were submitted by the due date (regulation 133). Outstanding data are being sought from the operator of the former PELs 5 and 6.

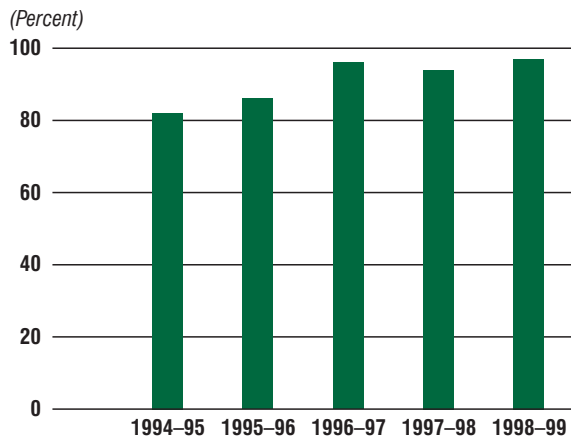
During the year the following breaches of codes and environmental policy occurred. Eight of the 16 seismic surveys conducted during the year were inspected for environmental issues and none showed significant non-conformance. Of the 250 wellsites inspected three instances of non-conformance were observed; this compares to a 6% non-conformance rate for 1997–98 (Fig. 3). There were no significant royalty reporting non-conformances, and liaison with industry is continuing to ensure that royalty reporting continues to meet legislative objectives and satisfies broader PIRSA requirements.

Of the 25 oil spills reported during the year two required corrective action and both were satisfactorily resolved (Fig. 4). Non-conformance rates for aspects of produced water disposal ranged from 3% for organic components to 47% for nutrient components; this issue is currently being addressed with the operator.

Incident response services (output 2.4)

The major seismic line monitoring program (see output 2.3) detected 1539 non-conformances (31% of all sites inspected). Of these PIRSA responded to 411 significant incidents. Most of these related to seismic lines recorded in the 1970s and early 1980s (Fig. 2). A rehabilitation plan is being

Fig. 3 SA petroleum wellsites inspected complying to environmental objectives



developed in conjunction with the former operator to address these issues.

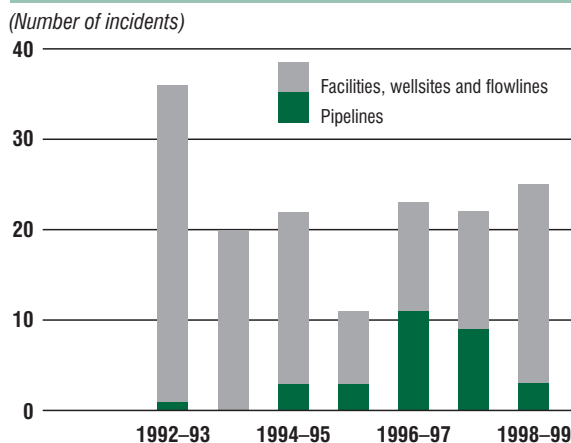
SUPPORT SERVICES TO GOVERNMENT (output class 3)

Policy advice and support services (output 3.1)

PIRSA provides policy and technical advice to the Government on all aspects of the upstream petroleum industry. A total of 103 briefing notes and responses to questions (with and without notice) were provided to Parliament; 13 of these were in regard to petroleum exploration and development in the Coongie Lakes area. Seventy ministerial inquiries were answered.

PIRSA represented the State on the ANZMEC-COAG Upstream Issues Working Group, the ANZMEC Petroleum Legislation Subcommittee, and on ANZMEC working groups reviewing the offshore petroleum legislation on environmental approvals for facilities, retention licences, exploration acreage management and approvals for pipelines. PIRSA also represented the State on the national committee developing Australian Standard

Fig. 4 SA oil spill statistics



AS 2885 for high-pressure petroleum pipelines and on the national Petroleum Data Consultative Group.

Legislation development and review services (output 3.2)

Preparation of the Petroleum Bill 1999 and Regulations, to replace the current Petroleum Act, was completed after approximately three years of public consultation. It is anticipated that they will be tabled in Parliament during the Spring Session. The new bill includes provisions to licence exploration for and exploitation of geothermal energy. A National Competition Policy review of it was also undertaken.

Negotiations on resolution of National Competition Policy issues relevant to the *Cooper Basin (Ratification) Act 1975* continued.

FACILITATION SERVICES

(output class 4)

Facilitation planning services (output 4.1)

PIRSA, through its close involvement with obtaining stakeholder acceptance of petroleum activities, is the lead agency in facilitating petroleum activities. For calendar year 1998, petroleum activities were valued at \$121 million in exploration, \$358 million in development, and \$5 million capital expenditure for transmission pipelines. To encourage petroleum exploration companies to re-locate to South Australia, PIRSA offers a free data deal to companies opening an office in this State. Six free data deals were made with consultants and entrepreneurs to carry out non-exclusive studies of the Cooper Basin. The consultants will widely market their studies and products, assisting PIRSA in promoting the opportunity to a broader market. A five-year petroleum marketing plan has been developed, with a focus on effectively continuing the marketing of Cooper Basin opportunities.

Trade and market services (output 4.2)

The third *Petroleum services directory South Australia* was published and attracted entries from 107 local companies. It is designed to highlight and provide information on South Australian-based upstream petroleum exploration and development consultants and service companies, and is being distributed to national and international explorers at conferences and exhibitions. PIRSA is collaborating with the Department of Industry and Trade to produce a broader directory identifying South Australian companies that have skills sought by the upstream petroleum industry, both on and offshore.

ENERGY

The Office of Energy Policy facilitates the coordinated development and implementation of policies, legislative frameworks and regulatory responsibilities for the competitive, sustainable, safe and reliable supply and use of energy for the benefit of the South Australian community. The group achieves this through three key functions: energy market policy; sustainable energy policy and programs; and regulation (through the Office of the Technical Regulator). In addition, the group hosts the Natural Gas Authority of South Australia, which administers the Gas Sales Agreements the State has with the Cooper Basin Producers and with Terra Gas trader and Boral Energy.

INFORMATION SERVICES

(output class 1)

Data and information products and services (output 1.1)

Three energy safety brochures — *Trees and power lines*, *Building safely near power lines*, and *Using electricity safely on farms* — were produced on behalf of the Technical Regulator to update those previously available from ETSA Corporation. Two brochures — *Commercial cooking* and *Commercial refrigeration* — were developed for addition to the *Small business energy savers kit*.

The agency publishes *Energy South Australia* newsletter three times a year. A survey confirmed that readers find the newsletter informative and indicated that each copy is read by about five people.

The Easy Living Home at Seaford Rise was launched in October by the Deputy Premier and Minister for Primary Industries, Natural Resources and Regional Development. PIRSA's Energy Information Centre (EIC) assisted in designing and building this innovative display home, the first in South Australia to incorporate energy efficient and environmentally friendly design principles. Advice and expertise on energy efficient housing were also provided for the Mawson Lakes and Northfield housing developments.

The EIC assisted local governments with uptake of the 'Cities for Climate Protection' program, and is working with the Australian Greenhouse Office on the 'Household Greenhouse Action' program.

High-profile energy saving campaigns, aimed at reducing summer and winter peak demand on the electricity supply system and greenhouse gas emissions, were run in January–February and June.

Safe energy practices and the dangers of energy misuse were highlighted through a state-wide advertising campaign. A *Bright sparks energy safety resource kit*, which includes an electrical



The Easy Living Home, Seaford Rise. (Photo 47056)

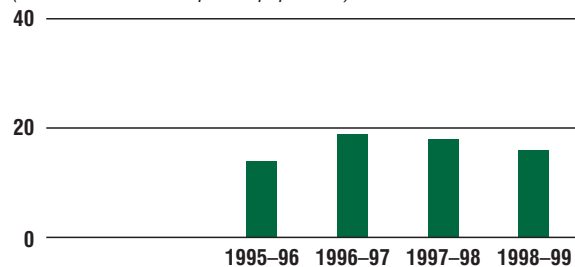
safety tutorial on CD and energy safety literature, was supplied to every school in South Australia.

Nineteen *Schools energy saver kits* were sold to schools, TAFE institutes, and interstate and overseas buyers. Renewable energy was promoted using PIRSA's Sustainable Energy Caravan at five venues during the year — National Primary Education Conference for Technology, Environment Expo, Florey's Festival of Science, Grange and McLaren Vale Primary Schools, and Seymour College.

PIRSA aims to achieve increasing annual public awareness of safety and energy efficiency services offered by the EIC (percentage of adult metropolitan population). Safety service awareness was 12% for 1998–99 (cf. 11% in 1997–98). Energy efficiency service awareness was 16% (cf. 18% in 1997–98; Fig. 5).

Fig. 5 Increasing annual public awareness of energy efficiency services offered by the EIC

(Percent of adult metropolitan population)



STATE RESOURCE REGULATION SERVICES

(output class 2)

Resource regulation planning services (output 2.1)

PIRSA represented the State on several Australian (and New Zealand) committees. The Public Utility Regulators Forum developed economically and technically consistent regulatory regimes across Australia; the Gas Technical Regulators Committee worked to establish an acceptable regulatory framework for introducing the Trans Tasman Mutual

Recognition Agreement, and reviewed LPG composition and the lack of consistency between jurisdictions on flueless gas heaters; the Electrical Regulatory Authorities Council addressed electrical safety standards, uniform licensing and consumer awareness.

Two issues of *Regulation roundup*, a newsletter for registered plumbers, gasfitters and electricians, were released.

Licensing services (output 2.2)

PIRSA seconded staff to the South Australian Independent Pricing and Access Regulator to review and analyse a proposed access regime for Envestra's South Australian gas distribution network and provide information on technical issues. This work contributes to implementation of the National Third Party Access Code for Natural Gas Pipelines and the requirements of the *Gas Pipeline Access (South Australia) Act 1997*.

Compliance services (output 2.3)

Technical audits and special investigations of electrical workers and gasfitters are carried out to ensure compliance with relevant safety standards and legislation. In 1998–99 there were 725 audits and 482 special investigations of electrical workers, and 820 audits and 225 special investigations of gasfitters.

Appliances are assessed in accordance with the *Electrical Products Act 1988*. Certificates were given for 280 proclaimed articles, five non-proclaimed articles, and 15 energy labels.

PIRSA participated in revision of the *Electricity Act 1996* and Regulations to make provision for establishment of the South Australian Independent Industry Regulator (SAIIR) and include comments from industry. SAIIR will set network prices in return for a defined level of service and possibly administer an alternative licensing system.

There was a considerable reduction of complaints to the Minister for Primary Industries, Natural Resources and Regional Development about excessive vegetation clearance around powerlines, following liaison with ETSA utilities regarding instructions to, and management of, tree cutting contractors. Proposed changes to the vegetation clearance regulations were prepared to reflect community concerns and wishes.

Incident response services (output 2.4)

On 2 August, a fire resulting from a burst pipe at the Adelaide Refinery shut down operations for two months; petrol stocks remained tight for a further two months. Supplies of transport fuels were closely monitored and PIRSA remained ready to implement petrol restrictions according to established procedures during this and another period of shortage in February and March. Restrictions were

avoided through excellent cooperation by all parties involved.

Procedures for administering a gas shortfall in the State were developed in liaison with industry.

SUPPORT SERVICES TO GOVERNMENT (output class 3)

Policy advice and support services (output 3.1)

PIRSA provides policy and technical advice to the Government on the supply and use of energy. A total of 215 ministerial inquiries on these topics were handled during the year in addition to briefing notes and Cabinet submissions.

A draft energy policy framework, to ensure consistent and transparent decision making on energy matters across Government, has been circulated to representative industry and community groups for comment before being finalised. The framework covers all aspects of energy and incorporates existing sustainable energy policy.

Independent evaluation of industry forecasts and assessments of policy changes and investments in energy infrastructure were carried out using a linear program model of energy flows and forecasts (MENSA/MARKAL). The impact on the gas and electricity sectors of the Pelican Point 500 megawatt gas-fired combined cycle power station and the proposed electricity interconnection with New South Wales were taken into account. These studies indicated a number of issues to be addressed, including future supplies of gas and electricity generation capacity to meet the rapidly growing summer peak electricity demand.

PIRSA contributes to a range of national programs, such as those agreed by COAG and administered through ANZMEC. The agency was represented on the Energy Management Task Force (EMTF) and the National Greenhouse Energy Group and its working groups developing proposals for implementing the 'Mandatory 2% renewables target' and 'Energy efficiency standards for power generation' announced by the Prime Minister in November 1997. Financial management of the EMTF's Central Fund was provided. PIRSA was also represented on the National Oil Supplies Emergency Committee.

PIRSA provides the secretariat for the State Energy Research Advisory Committee (SENRAC), responsible for recommending energy research projects suitable for Government funding. In 1998–99, \$233 500 were awarded to 10 projects investigating aspects of renewable energy (six) and efficiency of use of traditional energy sources (four). Studies related to SENRAC's involvement in the commercialisation of local energy research and strategic directions for energy research funding in South Australia were commissioned.

The agency contributed to national developments in energy labelling and minimum energy performance standards for domestic, commercial and industrial appliances.

Petroleum refining and retail marketing have been undergoing significant reform over the last year. In conjunction with other agencies, PIRSA worked on a whole-of-government approach to the reforms and their impacts, particularly the effects on the Adelaide Refinery and small service stations.

Legislation development and review services (output 3.2)

Two Acts were reviewed under the National Competition Policy. No changes were recommended for the *Gas Act 1997* and Regulations, and this has been endorsed by State Cabinet. The review of the *Stony Point (Liquids Project) Ratification Act 1981* is being conducted jointly with the Crown Solicitor's Office.

National energy market reforms

PIRSA represented the State on the COAG Energy Markets Group contributing to discussions to clarify the scope of energy reforms necessary for compliance with National Competition Policy agreements.

The National Electricity Market commenced in South Australia on 13 December. Provisions were made in the Electricity Act, effective from 1 July 1999, to set network prices to be applied to market (contestable) customers for the use of the transmission and distribution network.

PIRSA continued to monitor and ensure compliance by electricity entities in South Australia with the Regulations under the Electricity Act. System average outage duration, a nationally accepted reliability indicator for electricity networks, was 110.4 minutes per customer for ETSA Utilities in 1998–99. This is 4% better than the target of 115 minutes per customer per year.

Gas sector reform

PIRSA represented the State on the national Gas Reform Implementation Group monitoring progress of the Application Bills emanating from the Gas Pipelines Access (South Australia) Act and addressing retailing and upstream competition.

The South Australian gas access regime, consisting of the Gas Pipelines Access (South Australia) Act and the licensing and contestability parts of the Gas Act, was certified as 'effective' by the Federal Government for a period of 15 years. Access to the State's natural gas pipelines will be through the access regime instead of the *Trade Practices Act 1974*. South Australia was the first State to gain this exemption, with other jurisdictions using this State's application as a template; national regulations for the Act were drafted for approval by all relevant jurisdictions.

The Executive Director of the Office of Energy Policy was appointed as the national Code Registrar, under the Gas Pipelines Access (South Australia) Act, to provide a one-stop shop for natural gas pipeline access information. A public register has been established and Internet access is being initiated.

The South Australian Gas Review Board was established as an administrative appeals tribunal for gas access issues.

A National Gas Pipelines Advisory Committee, including representatives from all jurisdictions, regulators and industry, was established to provide advice to Ministers on changing the national gas access code.

Portfolio program management services (output 3.3)

Remote areas

The Remote Area Energy Supplies Subsidy scheme continued to subsidise the cost of electricity at 15 centres remote from the South Australian electricity grid. Tariff increases were kept to a minimum due to savings achieved through the implementation of new operation and maintenance contracts.

The increased use of LPG as an alternative to diesel in remote areas is providing financial and environmental benefits.

Natural Gas Authority of South Australia

PIRSA continued to carry out the contractual requirements of the Natural Gas Authority of South Australia (NGASA) as stipulated under the six Gas Sales Agreements to which NGASA is a party. Responsibility was assumed for provision of daily gas nominations to the Producers since developments in the gas reform process placed the previous agent (Epic Energy) in a possible 'conflict-of-interest' position. In 1998–99, NGASA purchased 88 petajoules of gas at a cost of \$212 million for its customers, Terra Gas trader and Boral Energy.

An Apportionment Deed, establishing procedures for the allocation between multiple buyers of gas at the Moomba Delivery Point, is being negotiated with the South Australian Cooper Basin Producers and should be finalised by October 1999.

FACILITATION SERVICES

(output class 4)

Facilitation planning services

(output 4.1)

PIRSA organised a sustainable energy conference, 'Opportunities out of Kyoto', held in Adelaide in September. The conference focused on the impacts and opportunities for South Australian industry and consumers of meeting international greenhouse obligations and included a comprehensive analysis

by the South Australian Centre for Economic Studies, which showed that the State could gain a competitive advantage through being a lower per capita emitter of greenhouse gases.

The agency contributed to development of the National Greenhouse Strategy released by the Federal Government in November. The major component of PIRSA's Sustainable Energy Program is defined by this strategy. In-principle rules for a national green power accreditation program were negotiated with other States, Territories, and the Federal Government, as part of the National Greenhouse Strategy.

The greenhouse targets set in April 1998 were refined in conjunction with each government agency. The targets are part of a wider program to improve government energy efficiency and consequently reduce greenhouse gas emissions. A *Greenhouse targets handbook*, leaflets and 'switch-off' stickers were prepared to aid in achieving these.

A further seven schools joined the Schools Energy Program, bringing the total to 143.

PIRSA presented seminars and conducted energy audits and site visits for Motor Trade Association (MTA) members under the national 'MTA Greenhouse Allies' program. South Australia has been the first group to participate.

INDUSTRY DEVELOPMENT

The Industry Development Group provides consultancy services to ensure that government and industry effort is effective in maximising sustainable economic growth. Key areas of focus for developing South Australia's primary industry and resources sectors include development and implementation of the State Food, Fibre and Resources industry plans, strategic funding, investment attraction services, regional development services, business development services and micro-economic reform.

INFORMATION SERVICES

(output class 1)

Data and information products and services (output 1.1)

SA Food Online

SA Food Online, which showcases the people, products and services comprising South Australia's food industry, was launched by the Deputy Premier and Minister for Primary Industries, Natural Resources and Regional Development in October. It has been praised by industry for its innovative approach to government service delivery. The world-class technology developed by PIRSA and underpinning SA Food Online was recognised through receipt of the Gold Award in the national Government Technology Productivity Awards. The technology allows generation of online services for a fraction of their normal cost and time.

Development of integrated electronic commerce facilities for the Australian food industry continued. A \$250 million online trading platform will be integrated with SA Food Online under a Government-Telstra alliance. Buyers of South Australian food and beverage products will be able to search SA Food Online's register of companies, then move easily into a transaction environment to execute purchases and transport arrangements.

SUPPORT SERVICES TO GOVERNMENT

(output class 3)

Policy, advice and support services

(output 3.1)

PIRSA provided advice on funding, procurement and priority setting to the Government on regional development projects including the Eyre Peninsula Regional Strategy, Riverland Rural Partnership Program, Loxton Rehabilitation and Murray Mallee Strategic Planning Project.

FACILITATION SERVICES

(output class 4)

Facilitation planning services (output 4.1)

PIRSA assisted the Industry Development Boards to create strategic frameworks for their sectors that

identify high potential investment opportunities, strategies for product differentiation, and innovative structures to help small producers.

The agency facilitated the implementation of regional strategy programs for Eyre Peninsula and the Riverland, including the Riverland Rural Partnership Program farm development initiatives. Broad community consultation and inter-agency support were key factors. PIRSA also facilitated the development of a regional strategic planning program for the Murray Mallee region to be funded by the Federal and State Governments.

Food for the Future

An implementation framework for 'Food for the future — towards 2010', the State's plan to grow the food industry to \$15 billion by 2010, was developed. Five working committees, each supported by a whole-of-government implementation team, were established under the Premier's Food for the Future Council. These are industry culture and promotion, quality food, innovation and technology, strategic investment and export facilitation. Their focus is to ensure easy access to information on quality, export and innovation; support whole-of-the supply-chain demonstration projects; and make whole-of-government systems improvements.

PIRSA conducted the inaugural Premier's Food and Fabric Awards which aim to facilitate the development of excellence. The awards, presented in October, recognised outstanding achievement by pre- and post-farmgate companies in horticulture, meat, seafood, dairy, field crops, wool and other fibres.

The South Australian Food and Beverage Exporters Association, an industry-government partnership, was established (with dedicated officers in Japan and Taiwan) to encourage and facilitate exports to targeted markets.

The successful Business Network luncheon speakers' series continued with 400 participants attending the four luncheons.

An Olympics project was initiated to facilitate the opportunity for producers to supply food service operators for Sydney 2000.

Several key industry issues were addressed such as improvements needed in cold chain management, removing trade barriers from South Australian products and improving working relationships with the Australian Quarantine and Inspection Service.

Mineral resource development

A Resources Task Force, including members from industry, PIRSA and the Department of Industry and Trade, was formed at the request of the Premier to develop a long-term strategic plan for the mineral resource industry. Ways to optimise the contribution of the mineral resource sector are being investigated.

PIRSA completed a prefeasibility study which indicated that a magnesium smelter located at Port Augusta, using magnesite deposits from near Leigh Creek, could be viable. The project has been handed over to a company (SAMAG) which has delineated the deposits as world-class and is investigating the next stage of development.

The Gawler Craton Infrastructure Advance-Planning Study, to facilitate mineral resource development, was released and has identified matters relating to government approval processes, water management, and clarification of legislation such as native title and multiple land use. These recommendations are being incorporated into a framework for whole of State minerals development by the Resources Task Force.

PIRSA assisted four South Australian companies to mount a display of granites at the international stone industry exhibition at Carrara, Italy, in May. This year's event was the first time that a South Australian stand had been organised, and it was considered a business success for the participants and a clear demonstration that the State is a supplier of high-quality dimension stone.



The South Australian stand at the Carrara Stone Industry Fair, Italy, May 1999. (Photo 46831)

Trade and market services (output 4.2)

The Premier's HOFEX '99 Market Awareness Mission to Hong Kong in May introduced over 40 producers and growers to the requirements for export to these markets; the majority of participants returned with genuine export orders. The mission was coordinated by PIRSA, State Development and the Business Centre and focused on the Hong Kong's Hotel and Food Exhibition.

Overseas buyers were invited to attend the Virginia Horticulture Expo in October. A similar campaign, to attract overseas buyers, is being run for Tasting Australia in October 1999.

RURAL COMMUNITIES

The South Australian Rural Communities Office is responsible for advising on strategies, developing policies and operating programs that improve the delivery of government services to rural communities; providing support and assistance to rural community groups with a focus on families involved in primary production; providing a source of information and advice about rural communities; and ensuring that issues of concern to rural communities are communicated effectively to the Government.

The Rural Communities Office, including its Ruralink programs, was incorporated into the new Office of Regional Development on 30 June 1999, following the recommendations of the Premier's Regional Development Task Force.

INFORMATION SERVICES

(output class 1)

Data and information products and services (output 1.1)

PIRSA manages the South Australian Rural Network, which distributes information on services and issues relevant to rural communities. Three issues of the *Paper bark* newsletter were released.

SUPPORT SERVICES TO GOVERNMENT (output class 3)

Policy, advice and support services (output 3.1)

PIRSA provided considerable input to the work of the Premier's Regional Development Task Force which was established in August with specific terms of reference. The agency, represented by the Chief Executive, provided a submission and follow-up input into the task force deliberations.

FACILITATION SERVICES

(output class 4)

Facilitation planning services (output 4.1)

The agency managed a number of Ruralink programs aimed at improving the coordination and delivery of government services and information to rural and remote communities including the free call help-line and mobile information unit, which were initiated in 1997–98. Six government service centres were established in Ceduna,

Kimba, Maitland, Peterborough, Lameroo and Keith to provide local access to information about government services and government home pages through the Internet.

Training and education services

(output 4.3)

Two inaugural courses — 'Shaping the future' (South Australian Rural Women) and a South Australian rural leadership course — were held in October and March, respectively, each attracting 20 participants. The South Australian Rural Women's Gathering at Kadina in August was attended by 280 women.

PIRSA developed a State action plan for women in agriculture and resource management and contributed to the national plan, which were both launched in October. The Rural Women's interactive database (RWiD), a State action plan project, facilitates the search for potential participants, representatives or speakers, and provides information on committees, company directors, public speaking, public administration and training opportunities as they arise. RWiD was launched by the Minister for Primary Industries, Natural Resources and Regional Development in August.

Twelve South Australian women (seven courtesy of joint PIRSA–industry bursaries) attended the 2nd International Conference for Women in Agriculture in Washington DC, United States, in July. These women now form the Washington Delegation Group, which meets quarterly to work on projects resulting from the conference.



South Australian delegates at the 2nd International Conference for Women in Agriculture in Washington DC, July 1998. (Photo 100936)

AGENCY SUPPORT

Agency support is provided by several groups. Some of the achievements of these groups cannot be linked to outputs (unlike the preceding groups) and instead are discussed under 'Other' in this section.

The Corporate Services Group is responsible for financial and accounting management, human resource management, rural finance and development programs, administrative services, legal and para-legal consulting, and internal audit and risk management activities.

The Information Management Group is responsible with knowledge management, information delivery services, records management, mapping and spatial data, computing and communications infrastructure, business solutions and applications development, publishing services, inquiries and records storage.

The Policy and Strategic Development Group is responsible for the implementation of the Government Management Framework across the agency and, at the corporate level, strategic planning, policy response, performance measurement and evaluation, and continuous improvement.

The primary role of the Public Relations and Communications Unit is to promote and communicate the role of the agency and its activities and services to the public.

Corporate Services was restructured in June 1999 as the Finance and Strategic Planning Group, incorporating the former Policy and Strategic Development Group as a unit. A Human Resources Group was created, reporting separately to the Deputy Chief Executive.

INFORMATION SERVICES

(output class 1)

Data and information products and services (output 1.1)

Electronic geoscientific library

A software-independent, portable document format (PDF) digital library has been introduced for agency publications, illustrations, displays, presentation graphics and photos. Direct viewing and printing access is available corporate-wide. The library currently contains 8000 illustrations, 450 publications and 10 000 photos, predominantly on geoscientific topics. PIRSA developed the system to improve work practices and in response to increasing public demand to access data electronically.

The agency also stores reports and associated data recording company mineral and petroleum activity over tenements in South Australia. Companies are required to submit this data to PIRSA under the Mining and Petroleum Acts. Tests on imaging these

reports in PDF, and archiving on CD, indicated that the process is viable; all new company reports are being imaged and added to the digital library.

Until 1998, data were reproduced on microfilm as an archival medium, but this practice has been phased out and archiving is now entirely digital.

Retrospective scanning of frequently accessed data (agency and company) was initiated and the feasibility of imaging the entire collection is being considered. As an indication of the size of this task, there are approximately 30 000 reports alone, with an estimated replacement value in excess of \$3 billion.

Data in the geoscientific library are located via BASIS databases, one of which is the SAMREF bibliographic index. A project is under way to make access to the index easier. Customer surveys, workshops and interviews were conducted, and a consulting group engaged to analyse the business requirements in consultation with PIRSA. A Project Board has been established with representatives from industry to assess the requirements and make recommendations.

New techniques for presentation of data, including interactive multimedia and specific data package CDs, have been developed following establishment of the electronic library. These have had applications for industry clients and agency promotional and educational purposes.

Spatial data

Several new data sets were released into the spatial data library for ready access on the agency local area network using desktop GIS tools. Work efficiency was improved through automation of the updating procedure for Groundwater Program project area data.

Metadata documentation (information relating to the history of the data) for the agency's key corporate data sets was completed. The metadata are compliant with the Australian and New Zealand Land Information Council standard and are published on the Australian Spatial Data Directory web site.

PIRSA has made a desktop GIS software support and maintenance agreement with ESRI Australia, which has significantly reduced the price of the software. The agreement was initiated in response to increased user demand for the product.

Centre for Minerals and Petroleum

The South Australian Government illustrated its commitment to the resources industry by opening the Centre for Minerals and Petroleum on the ground floor, 101 Grenfell Street, Adelaide on 30 November during Resources Week. This initiative centralises services and facilitates in a one-stop shop concept for the resources industry; requests for mineral, petroleum and groundwater information are dealt

with by the centre. The number of inquiries, particularly from Tertiary students, has increased since the relocation of the former Mines and Energy Resources South Australia from Parkside to the city in August 1998.

Publishing services

PIRSA continued its support of Prime Notes, a CD containing consolidated fact sheets from State departments of agriculture around Australia. Versions 6 and 7 were released during the year, which contain over 2800 technical fact sheets (cf. version 5 with 1400).

PIRSA Fax provides a 24-hour access service to agricultural information from a range of providers in an industry driven partnership. Approximately 300 new titles were added during the year.

An upgrade of PIRSA's web site is due to be launched in August 1999; over 30 000 pages of information are downloaded from the existing site each month (cf. 10 000 in 1997-98).

The agency publishes the *MESA Journal*, a free, full-colour quarterly earth resources magazine providing up-to-date information about mineral, petroleum, energy and groundwater in South Australia. It is becoming increasingly popular, and the 2000 quarterly copies are distributed or requested within a few weeks of printing. A questionnaire was sent to the 1400 clients that receive the journal by mail to assess the feasibility of recouping monies through subscription, over-the-counter sales or paid advertising to fund a larger print run for each issue. Results of the survey are still being assessed.

A brochure, *Discover South Australia's mining heritage trails*, was released in July 1998 as part of PIRSA's role in promoting the State's mining heritage. It was written, designed and produced by PIRSA, and funded by a range of organisations involved in the management and promotion of mining heritage and tourism. The trails bring together more than 30 widely scattered and diverse sites. The 50 000 copies are being distributed through tourism outlets across the State and in Broken Hill.

Information panels for the Wheal Hughes Tourist Mine Visitor Centre, near Moonta, were produced by PIRSA in conjunction with WMC and the South Australian Chamber of Mines and Energy. The mine, which is owned by the District Council of the Copper Coast, is the State's leading underground mine experience.

Other significant displays prepared include Resources '98, the Royal Adelaide Show, Cleve Field Days, the Prospectors and Developers Association of Canada Convention and Trade Show 1999, and PIRSA's Cooper 99 Symposium.



Wheal Hughes open cut and mine portal. (Photo 46546)

Records management

The agency's disposal schedules for the mineral, petroleum and groundwater records were the first to be approved by the new State Records Council, appointed under the *State Records Act 1997*. Sentencing and disposal of about 5% of the vast and valuable records collection has been completed. Records of value were transferred to State Records for permanent storage for the benefit of the community.

STATE RESOURCE REGULATION SERVICES

(output class 2)

Incident response services (output 2.4)

PIRSA has a wide responsibility for responding to emergencies such as animal and plant health, weeds and other exotic pests, earthquakes and energy supplies; the Chief Executive PIRSA is the State Controller. An action plan is being implemented to ensure the agency's capability to respond to a range of significant incidences following a review of emergency management that identified areas for improvement.

SUPPORT SERVICES TO GOVERNMENT (output class 3)

Policy, advice and support services

(output 3.1)

A highly secure electronic briefing system is being developed to transfer industry and policy

information between the Minister for Primary Industries, Natural Resources and Regional Development, and PIRSA Executive.

Legislation development and review services (output 3.2)

Preparations are under way to repeal five Acts by the end of 1999 — the *Dairy Industry (Special Provisions) Act 1978*, *Marginal Dairy Farms (Agreement) Act 1971*, *Rural Industry Adjustment (Ratification of Agreement) Act 1990*, *Rural Industry Assistance Act 1985* and *Rural Industry Assistance (Ratification of Agreement) Act 1985*.

Portfolio program management services (output 3.3)

Rural finance and development

PIRSA administered the Eyre Peninsula Regional Strategy, a package of measures funded by the Federal and State Governments designed to encourage sustainable natural resource use and improve long-term profitability on Eyre Peninsula. One hundred and thirty-seven grants totalling \$2 059 070 for interest rate subsidies, and two grants totalling \$150 000 for re-establishment, were approved under the Rural Adjustment Scheme (RAS) components of the strategy. Other RAS components included information and community consultation, skills audit and training strategy, evaluation, strategy facilitator, and RAS facilitator. RAS components total \$8.8 million for the life of the program (until 31 December 2000).

Full implementation of the federal 'Agriculture — Advancing Australia' (AAA) package, which will replace the RAS, was delayed. Under RAS interim arrangements, 118 grants totalling \$388 970 were approved to support training, professional advice and skills development, and re-establishment for those wishing to leave the industry.

The FarmBis program, part of AAA, is a \$14.5 million initiative to provide grants to farmers to improve their business management skills. Grants totalling \$75 568 have been approved since its launch in March. The funding will also support a network of FarmBis officers and State Coordinator, plus information and promotion.

The Riverland Rural Partnership Program, designed to accelerate the rate of change and ensure that the region can succeed in a competitive global market, was also launched in March. The projects focus on business planning, quality assurance, export initiatives and farm development. Twenty-one grants totalling \$21 000 for business planning and 12 totalling \$60 000 for re-development were approved.

The *Rural Industry Adjustment and Development Act 1985* authorises the Minister for Primary Industries, Natural Resources and Regional Development to make loans and grants to assist

on-farm development and adjustment towards lifting productivity, and to fund projects for the benefit of farmers and the farming industry as a whole. Five grants and one loan totalling \$1 048 000 were approved. Financial statements for the fund are included in Appendix 10.

PIRSA is responsible for the provision of loans to cooperatives in South Australia engaged in the primary industries sector; two loans totalling \$150 000 were approved during the year.

FACILITATION SERVICES

(output class 4)

Training and education services

(output 4.3)

Primary producers are encouraged to use computer technology and access PIRSA's information and services. The agency also makes itself available through state-wide demonstrations at field days, conferences, seminars, and workshops.

John Mignone, PIRSA's Education Officer, was presented with the award of 'Unsung Hero of South Australia, 1999'. Australian Science Communicators (SA) presents this annual award to a South Australian-based scientist whose unrecognised work benefits the community. John Mignone offers a free service to schools and community groups as a means of providing geoscientific information in an easy to understand manner.



John Mignone demonstrating aspects of geology to secondary school students. (Photo 46832)

The education service has been eagerly sought after, with 300 presentations given around the State during the year. These included workshops for students, teacher training and development, student work experience placements, CSIRO student research projects, and information booths at various events. Many schools on Eyre and Yorke Peninsulas requested presentations on TEISA airborne surveys in the first half of 1999.

PIRSA approved funding of \$267 000 to assist the ongoing operations of 12 Rural Financial Counselling Services and the State Association, with

the principal aim of providing financial counselling and information to primary producers.

OTHER

In August 1998, several significant areas of PIRSA (including staff of the Agricultural Industries Group and the former Mines and Energy Resources South Australia) were consolidated at 101 Grenfell Street.

Policy and strategic development

PIRSA reviewed and re-issued its corporate strategic plan during the year, which sets out the agency's directions, priorities, performance measures and key service areas for 1999–2001. The new plan is based on achieving five main outcomes for South Australia; the corporate objectives, which remain unchanged, are aligned to these and integration with outputs was improved. Work is under way on PIRSA's performance measurement framework.

During the strategic planning process, Executive identified the adoption of best business practices as a priority strategy. The consequent 'Improving PIRSA' initiative, for continuous improvement in the organisation, is aligned with the Australian Quality Council 1999 Business Excellence Framework, and will be incorporated in PIRSA's annual planning cycle. As part of this initiative PIRSA groups completed self assessments in June, for implementation in 1999–2000.

PIRSA continued to take a lead role in development of the Government Management Framework — a package of South Australian public sector administrative, planning and budgeting reforms. The agency was represented on whole-of-government development and review groups, and at national public sector reform conferences. Output specifications, performance measures and costs were presented for the first time in PIRSA's budget papers (1999–2000).

Legal Unit

A Legal Unit was established in mid-1998 in response to increasing demands for diverse and prompt legal advice and steady growth in the delivery of services by contractors. Governments are now under pressure to consider the many legal aspects of their actions and decisions. The clear benefit of in-house legal expertise to PIRSA is the prompt injection of appropriate rigour to the interpretation and use of the law, including contractual aspects. The unit consists of three solicitors from the Crown Solicitor's Office, the agency's senior legislation consultant and an administrative officer. Freedom of Information issues also are overseen by the unit.

Human resources

A total of 1437.9 full-time equivalent staff were employed by PIRSA at 30 June 1999. Workforce statistics are summarised in Appendix 3.

The position of Manager Human Resources Strategies was filled in October and a review of the role and function of the group commenced. The position was created to give greater emphasis to human resources management as a source of competitive advantage to PIRSA. A draft strategic plan was released in June; significant changes include re-positioning to a more strategic business support role, and strengthening of support to operating groups.

Principles for human resources management were formulated to support a consistent approach across PIRSA, and the development of a human resources policy framework.

The classification system is being reviewed to improve efficiency.

During 1998–99 the percentage training expenditure relative to total employee remuneration costs was 2%. The internal Advanced Management Workshop series for senior and middle managers was completed and a new strategy for leadership development is being employed to ensure that PIRSA has a comprehensive and relevant program.

Competency standards for fisheries compliance are being developed by PIRSA, as part of the national Fishing Industry Training Package, and will be implemented in 2000. These will lead to a national approach to recruitment, training and development.

The CONCEPT human resource management system was updated to version 8, which is year 2000 compliant. The database is being reconfigured to reflect the new organisational structure of PIRSA.

Line managers are responsible for monitoring and approving leave in their work areas and ensuring that leave liabilities are kept to manageable levels.

During 1998–99, the average level of sick leave taken for each full-time equivalent employee was 3.8 days. This compares with 4.16 days for last year.

At 30 June 1999, 11.4% of PIRSA employees were under 25, compared to 8.8% for the previous year. This is above the Government target of 9.5%.

The PIRSA Women's Development Group was formed in 1996 to enhance the potential contribution of women in the organisation. Six projects were endorsed by the Executive and involved more than 350 people from all areas of PIRSA. The projects were:

- a study of the issues for employees aspiring to management and decision making
- development of a mentor model
- encouragement of flexible employment practice
- a study of the aspirations and barriers to enhancing the careers of administrative employees

- a study of women as customers which identified a model for training staff to improve service delivery
- development of an intranet site for keeping in touch with the organisation

The final report on these projects and an implementation plan were released in March 1999. The strategies recommended are being addressed by the Human Resources Group and will be an important element of the group's work program in 1999–2000.

Both the development of a human resources policy and the work undertaken by the Women's Development Group are consistent with the equal opportunity program requirements of section 67 of the Public Sector Management Act.

Enterprise bargaining

The Government Enterprise Bargaining Wage Parity Agreement was ratified in June and will deliver wage increases of between 10 and 12% for PIRSA employees over the life of the agreement from June 1999 to October 2001.

Occupational health, safety and welfare

A new way of managing occupational health, safety and welfare (OHSW) was introduced in January. PIRSAFE, the injury reduction component, focuses on hazard management and management accountability for performance through reporting against performance measures and targets. Worksite managers are responsible for ensuring at the worksite level that hazards are being identified and control measures are put in place. A quality systems audit was conducted in May and improvements recommended. The OHSW Policy Statement was reviewed and the new policy widely distributed amongst staff. Further improvements to the OHSW performance system are expected as PIRSA continues to develop PIRSAFE to meet the new WorkCover Performance standards for self insurers. OHSW statistics are provided in Appendix 4.

A major achievement during the year was attainment of a Level 3 WorkCover Performance Standard rating for each of the assessed areas of prevention, rehabilitation and claims across PIRSA.

The number of lost time injuries during 1998–99 increased by 32%. However, the increased number was offset by less overall time lost and lower costs for medical expenses. The implementation of PIRSAFE should assist in the reduction of these work injuries.

Three long-term workers compensation lost-time cases were settled, significantly reducing long-term liability costs.

PIRSA's vast collection of geoscientific records are stored at the Document Storage Centre, Glenside. A number of reviews were carried out to identify possible hazards associated with working and

storage conditions at the site, a former jail built in 1886. The findings indicated that the building does not comply with safety legislation and, because of its heritage listing, suitable modifications are not possible. Planning and approval to relocate the centre were completed and a new site at Walkley Heights has been selected, with the move scheduled to be completed by January 2000.

Finance

The Corporate Finance Branches of the former Mines and Energy Resources South Australia and Primary Industries South Australia were merged during the year. The new structure was developed having regard to PIRSA's business requirements, directions with respect to financial management practices, and efficiency gains from the introduction of integrated financial systems.

A Financial Management Systems Project Team was established to implement an improved financial system in line with the Government Management Framework. A management philosophy, to ensure maximum user involvement, has resulted in high levels of ownership and user acceptance. By 1 March, the team had implemented:

- Common Chart of Accounts to satisfy business requirements including accrual accounting and output reporting
- five integrated Masterpiece modules (Accounts Payable, Accounts Receivable, Purchase Order, General Ledger, Asset Register)
- ORACLE reporting database
- Intranet Solution to allow users to access financial information from the desktop

In addition, an accounting and budgeting framework for the introduction of purchaser-provider relationships in 1999–2000 was developed. Accrual accounting and costing principles were established to be applied to the allocation of overheads to calculate the full cost of outputs.

Purchasing

PIRSA embraced the Government's Purchasing Strategically Policy, which came into effect on 1 July 1998. An Accredited Purchasing Unit was established and achieved a Level 1 (up to \$200 000) Procurement Accreditation for PIRSA. The coming year will see the emergence of a Procurement Development Strategy which will be the blue print to continually measure and enhance PIRSA's procurement practises and processes.

Risk management

PIRSA is undertaking a strategic Risk Management Assessment in accordance with better corporate governance practices. Key risks, including that of fraud control, were identified through a questionnaire and interview process with all PIRSA executives. Outcomes will include:

- recommendations for the improvement of risk treatment
- listing of key risk areas to be incorporated in future planning processes
- listing of key risk groups to enable better targeting of review resources
- forward audit work program

PIRSA recorded no instances of fraudulent behaviour in 1998–99.

Strategies to identify and manage risks associated with the impact of the Year 2000 on the agency continued to be implemented. The Project Board is satisfied that the Year 2000 will have minimal impact provided that the essential services of electricity, water, gas and fuel supplies are maintained. Refer to Appendix 7 for a description of the actions being taken.

Corporate information technology

PIRSA inherited a number of separate computing environments when it was formed by the amalgamation of four former agencies and part of another in October 1997. The Executive endorsed the principle of a desktop and network standard operating environment across the agency in November 1998, which will be achieved through several projects including:

- implementation of a new electronic message system (Microsoft Outlook/Exchange)
- implementation of an automated software and hardware inventory, and software distribution tool
- upgrade of the network operating system
- upgrade or replacement of Year 2000 noncompliant desktop PCs

New information technology infrastructure and computing services have been installed at 101 Grenfell Street to support the transfer of staff from the former agencies. All local area network servers were upgraded to current proven technology through the government contract with EDS for infrastructure services. Implementation of Microsoft Outlook/Exchange commenced across all PIRSA sites and is expected to be completed by late August 1999.

New applications were developed for financial reporting and diagnostic centre operations in web browser based technologies which will reduce the cost of future information technology systems.

A computer support system is being developed to assist the agency in managing projects and reporting against strategic objectives. The Project Management Information System (PMIS) will guide tasks such as generating a project proposal, seeking approval, financial and milestone monitoring, and project evaluation. A consultant is undertaking the design specifications for the system which is expected to be trialed in early 2000.



PIRSA site at the Lucindale Field Day, March 1999. (Photo 100937)

Public relations and communications

Public relations and communications initiatives introduced during the year included the establishment of a media management committee, development of a strategy outlining protocols for dealing with the media, and introduction of the internal *Prime Time* newsletter. Events and publicity campaigns coordinated during the year included the Royal Show, St Barbara's Day celebration during Resources Week, opening of the 101 Grenfell Street offices, launch of the *Seasons of Change* vineyard investment book, Fruit Fly Campaign, VIP Seed Scheme launch, Energy Safety Campaign launch, Meat Hygiene Unit accreditation, regional field days and the Virginia Expo.

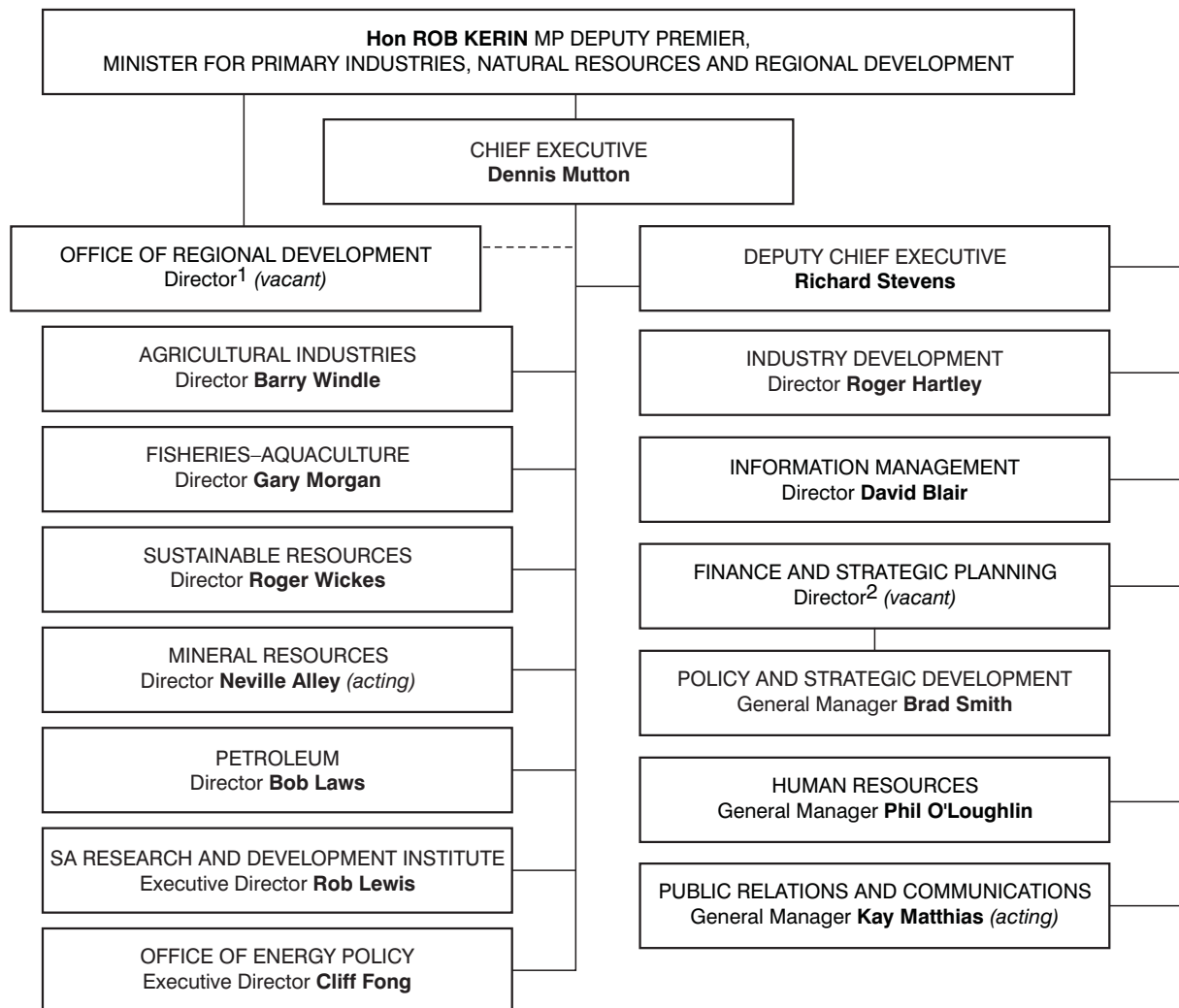


APPENDIXES

1. ORGANISATION

There were two significant organisational changes during the year. The South Australian Rural Communities Office, which reported to the Chief Executive, was incorporated into the new Office of Regional Development reporting directly to the Deputy Premier and Minister for Primary Industries, Natural Resources and Regional Development (refer to 'Performance review' for more detail). The Corporate Services Group was restructured as the

Finance and Strategic Planning Group, incorporating the former Policy and Strategic Development Group as a unit, and the human resources component was established as a separate group. Other changes include the renaming of Information Services Group to Information Management Group and the appointment of a Deputy Chief Executive and a Director of Information Management.



¹Wayne Morgan appointed September 1999
²Geoff Knight appointed August 1999

(at 30 June 1999)

2 MINISTERIAL RESPONSIBILITIES

Legislation

The principal legislation for which PIRSA has administrative responsibility for through the Minister for Primary Industries, Natural Resources and Regional Development is listed below. Many of these Acts are supported by Regulations, Notices and Indentures or Directions in some instances.

Agricultural industries

The Agricultural Holdings Act 1891
Apiaries Act 1931
Barley Marketing Act 1993
Biological Control Act 1986
Branding of Pigs Act 1964
Brands Act 1933
Cattle Compensation Act 1939
Citrus Industry Act 1991
Dairy Industry Act 1992
Deer Keepers Act 1987
Dried Fruits Act 1993
Fruit and Plant Protection Act 1992
Fruit and Vegetables (Grading) Act 1934
Garden Produce (Regulation of Delivery) Act 1967
Impounding Act 1920
Livestock Act 1997
Margarine Act 1939
Meat Hygiene Act 1994
Noxious Insects Act 1934
Phylloxera and Grape Industry Act 1995
Poultry Meat Industry Act 1969
Seeds Act 1979
South Australian Meat Corporation Act 1936
South Australian Meat Corporation (Sale of Assets) Act 1996
Swine Compensation Act 1936
Veterinary Surgeons Act 1985
Wheat Marketing Act 1989
Wine Grapes Industry Act 1991

Fisheries–aquaculture

Fisheries (Gulf St. Vincent Prawn Fishery Rationalisation) Act 1987
Fisheries (Southern Zone Rock Lobster Fishery Rationalisation) Act 1987
Fisheries Act 1982

Sustainable resources

Agricultural and Veterinary Chemicals (South Australia) Act 1994
Agricultural Chemicals Act 1955
Animal and Plant Control (Agricultural Protection and Other Purposes) Act 1986
Dog Fence Act 1946
Soil Conservation and Land Care Act 1989
South Eastern Water Conservation and Drainage Act 1992
Stock Foods Act 1941
Stock Medicines Act 1939

Mineral resources

Broken Hill Proprietary Company's Indenture Act 1937
Broken Hill Proprietary Company's Steel Works Indenture Act 1958
Mines and Works Inspection Act 1920
Mining Act 1971
Opal Mining Act 1995
Roxby Downs (Indenture Ratification) Act 1982

Petroleum

Cooper Basin (Ratification) Act 1975
Petroleum Act 1940
Petroleum (Submerged Lands) Act 1982
Santos Limited (Regulation of Shareholdings) Act 1989

Energy

Electrical Products Act 1988
Electricity Act 1996
Gas Act 1997
Natural Gas Authority Act 1967
Natural Gas (Interim Supply) Act 1985
Natural Gas Pipelines Access Act 1995
Petroleum Products Subsidy Act 1965
Stony Point (Liquids Project) Ratification Act 1981

Corporate services

Dairy Industry Assistance (Special Provisions) Act 1978
Marginal Dairy Farms (Agreement) Act 1971
Primary Industry Funding Schemes Act 1998
Primary Producers Emergency Assistance Act 1967
Rural Industry Adjustment and Development Act 1985
Rural Industry Adjustment (Ratification of Agreement) Act 1990
Rural Industry Assistance Act 1985
Rural Industry Assistance (Ratification of Agreement) Act 1985

Other Acts

In addition PIRSA has limited administrative functions under the following Acts that are committed to other Ministers.

Fisheries Act 1995 (Vic.)
Fisheries Management Act 1994 (NSW)
Harbours and Navigation Act 1993
Historic Shipwrecks Act 1976 (Cwlth)
Historic Shipwrecks Act 1981
National Parks and Wildlife Act 1972
Petroleum Products Regulation Act 1995
Petroleum (Submerged Lands) Act 1967 (Cwlth)

New or amended legislation

The Primary Industry Funding Schemes Act came into effect on 24 September 1998. Amendments were made to the Barley Marketing Act (p. 15), Wheat Marketing Act, Mining Act (p. 33) and Opal Mining Act.

Reviews of legislation

PIRSA continues to review many of the Acts, particularly with respect to national competition principles. These are discussed under 'Performance review'. A Bill has been drafted to repeal nine

moribund Acts, following the circulation of a discussion paper and industry support for such repeal. These are The Agricultural Holdings Act, Dairy Industry (Special Provisions) Act, Fruit and Vegetable (Grading) Act, Garden Produce (Regulation of Delivery) Act, Margarine Act, Marginal Dairy Farms (Agreement) Act, Rural Industry Adjustment (Ratification of Agreement) Act, Rural Industry Assistance Act and Rural Industry Assistance (Ratification of Agreement) Act.

Acts repealed

Bulk Handling of Grain Act 1955

Administered items

PIRSA administers but does not control the following funds on behalf of either the Federal Government or the Minister for Primary Industries, Natural Resources and Regional Development. These funds are not recorded in the agency's operating statement or statement of financial position as the agency does not have any discretion to deploy the resources for achievement of its own objectives.

Natural Gas Authority of South Australia

Following the sale of the Pipeline Authority of South Australia, the Natural Gas Authority of South Australia was formed to administer the contracts for buying gas from the producers in the Cooper Basin and on-selling it under the same conditions to Optima Energy and Boral Energy.

Fisheries Research and Development Fund

Established under the Fisheries Act, all fees and charges received under the Act are paid into the Fisheries Research and Development Fund. The components of the licence fee are set by the Minister in consultation with industry. PIRSA is the collecting agency for fishing licences which comprise:

- Aerial Surveillance
- Base Fee
- Contingency Fund
- Fisheries Research Development Corporation
- Fishing Management Committees
- South Australian Fishing Industry Council
- Special
- Structural Adjustment

Other

- Aquaculture Lease Rehabilitation Fund
- Barley Industry Levy
- Beekeeper's Compensation Fund
- Cattle Compensation Fund
- Dairy Industry Fund
- Deerkeeper's Compensation Fund
- Egg Industry Deregulation Fund
- Energy Management Task Force
- External Funds (Farm Chemicals Education and Extension: Anthracnose Compensation Fund; Seed Levies)
- Extractive Areas Rehabilitation Fund
- Gulf St Vincent Prawn Fishery Levy

- Minister's salary and allowances
- Natural Disaster Relief Fund
- Natural Heritage Trust Fund
- Payments to the South Eastern Water Conservation and Drainage Board — rural drainage operation
- SA Water — pricing subsidy for water and wastewater to country regions
- SAMCOR Funds administration
- Soil Conservation and Landcare Fund
- State — Local Government Reform Fund
- Swine Compensation Fund
- Wheat Industry Levy

Authorities

Statutory

Statutory authorities associated with primary industries and resources and within the Minister's area of responsibility are listed below. PIRSA provides relevant advice and assistance to these. Asterisks indicate those bodies (agencies) which have their own staff and other resources.

- Animal and Plant Control Boards* (43 throughout South Australia; 29 rural and 14 urban)
- Animal and Plant Control Commission
- Apiary Advisory Group (yet to be appointed)
- Australian Barley Board*
- Board of Examiners for Mine Managers
- Cattle Advisory Group
- Cattle Compensation Fund Advisory Committee (to be decommissioned)
- Citrus Board of South Australia*
- Dairy Authority of South Australia*
- Deer Advisory Group
- Deer Compensation Fund Advisory Committee (to be decommissioned)
- District Soil Conservation Boards (27 throughout South Australia)
- Dried Fruits Board*
- Fishery Management Committees (Abalone; Aquaculture; Blue Crab; Gulf St Vincent Prawn; Inland Waters; Marine Scalefish; Northern Zone Rock Lobster; Southern Zone Rock Lobster; Spencer Gulf and West Coast Prawn)
- Goat Advisory Group
- Meat Hygiene Advisory Council
- Phylloxera and Grape Industry Board*
- Pig Advisory Group
- Sheep Advisory Group
- Soil Conservation Appeal Tribunal
- Soil Conservation Council
- Swine Compensation Fund Advisory Committee (to be decommissioned)
- Veterinary Surgeons Board*

Other

There are many non-statutory authorities on which PIRSA is represented. Significant ones are discussed under 'Performance review' (e.g. Premier's Food for the Future Council and Industry Development Boards).

3 WORKFORCE STATISTICS

(at 18 June 1999)

Employee profile

STREAM	ONGOING			CONTRACT LONGER TERM			CONTRACT SHORTER TERM			CASUAL			TOTAL		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
ADMINISTRATIVE															
Administrative Services Officers															
ASO1	7	57	64	-	1	1	4	20	24	-	17	17	11	95	106
ASO2	9	61	70	-	2	2	1	22	23	1	1	2	11	86	97
ASO3	17	25	42	1	3	4	3	6	9	-	-	-	21	34	55
ASO4	16	13	29	1	6	7	6	5	11	-	1	1	23	25	48
ASO5	28	9	37	10	3	13	7	7	14	-	-	-	45	19	64
ASO6	19	6	25	4	1	5	6	4	10	-	-	-	29	11	40
ASO7	15	-	15	5	-	5	4	4	8	-	-	-	24	4	28
ASO8	4	-	4	3	-	3	-	-	-	-	-	-	7	-	7
Subtotal	115	171	286	24	16	40	31	68	99	1	19	20	171	274	445
Managers Administrative Services															
MAS2	3	-	3	-	-	-	-	-	-	-	-	-	3	-	3
MAS3	14	-	14	1	-	1	2	1	3	-	-	-	17	1	18
Subtotal	17	-	17	1	-	1	2	1	3	-	-	-	20	1	21
Total	132	171	303	25	16	41	33	69	102	1	19	20	191	275	466
OPERATIONAL															
OPS1	1	-	1	7	3	10	1	1	2	5	2	7	14	6	20
OPS2	22	4	26	15	7	22	3	5	8	3	1	4	43	17	60
OPS3	56	8	64	7	2	9	20	5	25	-	-	-	83	15	98
OPS4	21	1	22	3	-	3	2	-	2	-	-	-	26	1	27
OPS5	10	-	10	-	-	-	-	-	-	-	-	-	10	-	10
Total	110	13	123	32	12	44	26	11	37	8	3	11	176	39	215
PROFESSIONAL															
Professional Services Officers															
PSO1	12	20	32	27	20	47	12	18	30	2	1	3	53	59	112
PSO2	85	16	101	21	15	36	4	4	8	-	-	-	110	35	145
PSO3	79	10	89	13	3	16	4	1	5	-	-	-	96	14	110
PSO4	60	3	63	1	-	1	1	1	2	-	-	-	62	4	66
PSO5	18	-	18	6	-	6	-	-	-	-	-	-	24	-	24
Subtotal	254	49	303	68	38	106	21	24	45	2	1	3	345	112	457
Managers Professional Services															
MPS1	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1
MPS2	7	-	7	-	-	-	-	-	-	-	-	-	7	-	7
MPS3	8	-	8	-	-	-	-	-	-	-	-	-	8	-	8
Subtotal	16	-	16	-	-	-	-	-	-	-	-	-	16	-	16
Total	270	49	319	68	38	106	21	24	45	2	1	3	361	112	473
TECHNICAL															
TGO0	6	6	12	2	2	4	5	10	15	1	-	1	14	18	32
TGO1	14	10	24	7	13	20	6	6	12	2	-	2	29	29	58
TGO2	25	5	30	1	2	3	2	-	2	-	1	1	28	8	36
TGO3	15	2	17	1	-	1	-	-	-	-	-	-	16	2	18
TGO4	6	-	6	-	-	-	-	-	-	-	-	-	6	-	6
TGO5	2	-	2	1	-	1	-	-	-	-	-	-	3	-	3
Total	68	23	91	12	17	29	13	16	29	3	1	4	96	57	153
EXECUTIVE															
Executive Services															
EL1	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1
EL2	2	-	2	-	-	-	-	-	-	-	-	-	2	-	2
Level A	-	-	-	8	1	9	-	-	-	-	-	-	8	1	9
Level B	-	-	-	8	-	8	-	-	-	-	-	-	8	-	8
Level C	-	-	-	4	-	4	-	-	-	-	-	-	4	-	4
Level F	-	-	-	1	-	1	-	-	-	-	-	-	1	-	1
Total	3	-	3	21	1	22	-	-	-	-	-	-	24	1	25
OTHER EMPLOYEES															
Trainees															
Weekly Paid	62	9	71	-	-	-	18	4	22	86	57	143	166	70	236
Ministerial Officers	-	-	-	-	1	1	2	1	3	-	-	-	2	2	4
Total	62	9	71	-	1	1	29	17	46	86	57	143	177	84	261
GRAND TOTAL	645	265	910	158	85	243	122	137	259	100	81	181	1025	568	1593

Executive right to further employment

CLASSIFICATION	RIGHT TO FURTHER PUBLIC SECTOR EMPLOYMENT	
	Yes	No
EXL-1	1	–
EXL-2	2	–
Level A	4	5
Level B	5	3
Level C	2	2
Level F	–	1
Total	14	11

4 OCCUPATIONAL HEALTH, SAFETY AND WELFARE STATISTICS

	1998–99
Average number of full-time equivalent employees	1434
Hours worked by employees	2 867 256
Incidents which resulted in a workers compensation claim	109
Workers compensation claims that resulted in an incapacity for work of five or more working days	21
Budget allocation for workers compensation (\$)	373 000
Cost of workers compensation claims carried by the agency (\$)	523 692
Expenditure on occupational health, safety and welfare programs (\$)	174 438
Occupational health and safety and welfare representatives	38
Occupational health and safety and welfare committees	5
Default notices issued pursuant to s. 35 of the Act ¹	nil
Times work stopped pursuant to s. 36 of the Act ¹	nil
Improvement notices issued pursuant to s. 39 of the Act ¹	nil
Prohibition notices issued pursuant to s. 40 of the Act ¹	nil
Employees who participated in a rehabilitation program	26
Employees rehabilitated back to their original work	15
Employees rehabilitated and reassigned to alternative duties	nil
Employees still on rehabilitation programs	10
Employees whose claim have been finalised and have separated from the public sector	5

¹Occupational Health and Safety Act 1986

5 CONSULTANCIES

In 1998–99, 112 consultancies were engaged by PIRSA for a total expenditure of \$2 289 198.

CONSULTANT	PURPOSE	VALUE
Consultancy fees below \$10 000		
A total of 58 consultancies were engaged.		Subtotal \$238 122
Consultancy fees between \$10 000 and \$50 000		
<i>Mack Consulting</i>	Review the operations of the State Energy Research Advisory Committee.	\$10 000
<i>Pivotal Management Consultants</i>	Investigate alternative methods for the management of fisheries in South Australia.	\$10 711
<i>Geosurveys Australia Pty Ltd</i>	Prepare explanatory notes for the YARDEA geological map.	\$10 800
<i>National Safety Council of Australia</i>	Conduct quality safety and systems failure audits, develop OHSW plan and assist with a grant application to the Department of Premier and Cabinet for a project to improve OHSW in high risk groups.	\$11 045
<i>Alexander Symonds</i>	Survey drainage alignments, Upper South-East Dryland Salinity and Flood Mitigation Program	\$11 460
<i>Mark Sonter Consulting</i>	Review and audit PIRSA's radioactive material holdings.	\$12 527
<i>Whitehorse Geoscience Pty Ltd</i>	Work with AGSO to interpret Cooper Basin aeromagnetic data as a contribution to the National Geoscience Mapping Accord.	\$13 125
<i>PSM Group Pty Ltd</i>	Analyse aquaculture opportunity in the northern Spencer Gulf region.	\$13 530
<i>Instate Pty Ltd</i>	Convert the accumulator concept scoping study into a practical context and develop an export facilitation program.	\$14 000
<i>SA Centre for Economic Studies</i>	Review economic evaluation tools used by community groups.	\$14 000
<i>PC Ware Pty Ltd</i>	Merge the minerals tenement and tenent databases and modify.	\$14 220
<i>Hudson Howells Asia Pacific Consulting</i>	Assist with the development of a strategic plan for the Industry Development Board for Horticulture.	\$14 500
<i>The Landscape Company</i>	Review existing natural resource management plan and strategies and associated environmental works to determine environmental and natural resource priorities, themes and gaps within the Mount Lofty Ranges.	\$14 750
<i>American Geosciences Inc.</i>	Review the environmental impact statement for the Beverley uranium deposit.	\$15 000
<i>Econsearch Pty Ltd</i>	Undertake regional planning for the South-East Local Government Association.	\$15 000
<i>Jebsen and Company Ltd</i>	Undertake market research analysis for abalone.	\$15 000
<i>Ernst & Young</i>	Provide a range of services to assist PIRSA's business development and organisational change processes.	\$15 418
<i>Woods Bagot Pty Ltd</i>	Undertake facility planning study.	\$15 569
<i>Deloitte Touche Tohmatsu</i>	Undertake risk management assessment.	\$16 880
<i>Kinhill Pty Ltd</i>	Aquaculture offshore resource allocation and application review.	\$18 280
<i>Woodcock</i>	Establish the available and preferred technology to beneficiate low-grade iron ore to exportable high-grade concentrates.	\$19 228
<i>Ellis Farm</i>	Survey landholders to assess the likely scale and rate of adoption of farm forestry.	\$19 500
<i>Colandro Pty Ltd and Anderson Collins</i>	Undertake a mussel industry marketing strategy.	\$20 000
<i>Dames & Moore</i>	Undertake benefit cost analysis for on-ground works projects as part of NHT regional strategies.	\$20 730
<i>B. Jensen Schmidt Geophysical Consulting</i>	Evaluate seismic data in the Cooper Basin.	\$21 000
<i>Australian Quality Council</i>	Facilitate Australian Quality Council self-assessment.	\$21 118
<i>Instate Pty Ltd</i>	Develop value-adding opportunities for South Australian field crops.	\$22 200
<i>Decision Management Australia</i>	Facilitate development of three to five-year strategic plans for the various industry development boards.	\$22 500
<i>Arthur Andersen</i>	Review motor vehicle logbooks for Fringe Benefits Tax legislation.	\$22 562
<i>Maunsell-McIntyre</i>	Prepare a consultancy brief and undertake project management of stage 2 drainage works, Upper South-East Dryland Salinity and Flood Mitigation Program.	\$24 041
<i>T. Pietsch</i>	Review and implement financial systems.	\$24 766
<i>Coffey Geoscience</i>	Undertake geotechnical investigation of the Ballater Drain in the South-East.	\$26 240
<i>Geddes Management</i>	Attract commitment from external investors; develop appreciation of key issues in farm forestry and project management for the Mount Lofty Ranges Farm Forestry Group.	\$27 500
<i>Norman Waterhouse</i>	Review all Australian legislation dealing with vegetation clearance as part of the electricity safety and reform process.	\$28 000
<i>Anderson Collins</i>	Develop a marketing and communications strategy for the Eyre Peninsula Regional Strategy.	\$28 739

CONSULTANT	PURPOSE	VALUE
<i>Austin Williams Public Relations</i>	Profile the rock lobster industry.	\$28 776
<i>Advanced Geomechanics</i>	Review proposals for mine tailings storage, Olympic Dam.	\$29 406
<i>Applied Economic Solutions</i>	Undertake farming to land capability case studies, series 1 and 2.	\$33 877
<i>Platinum Creative</i>	Produce videos and publications on the rock lobster industry.	\$35 063
<i>Gambit</i>	Develop a graphical user interface for the geoscientific databases SA_GEODATA and MINDEP.	\$35 125
<i>Intec Consulting Group</i>	Consolidate the Unix environment of the former MESA.	\$36 800
<i>Econsearch Pty Ltd</i>	Undertake an economic analysis of performance indicators for commercial fisheries in South Australia.	\$39 750
<i>Worldwide Project Management Services</i>	Evaluate the Eyre Peninsula Regional Strategy.	\$40 000
<i>Hassel Pty Ltd</i>	Undertake regional planning for the Mount Lofty Ranges.	\$40 000
<i>Mack Management</i>	Undertake a scoping study to investigate ways of combining efforts of production and processing industries to effectively market products internationally.	\$42 000
<i>BC Tonkin & Associates</i>	Undertake concept design of drains, Upper South-East Dryland Salinity and Flood Mitigation Program.	\$44 565
	Subtotal	<u>\$1 029 301</u>
Consultancy fees over \$50 000		
<i>P. McInnes and L. Carroll</i>	Review animal health resources and servicing in South Australia.	\$50 104
<i>Economic Consulting Services Pty Ltd</i>	Review wheat breeding services in South Australia.	\$51 400
<i>DBIS</i>	Produce training CDs on Aboriginal heritage.	\$68 534
<i>Questa Australia Pty Ltd</i>	Evaluate technical data in petroleum production licence applications.	\$73 125
<i>Bronwyn Halliday</i>	Develop the Market Chain Facilitation project for the Industry Development Board for Wool.	\$75 000
<i>Intec Consulting Group</i>	Develop a strategic plan for the Information Technology Branch.	\$100 504
<i>SWOOD Financial Solutions</i>	Review and implement financial systems.	\$182 628
<i>Intec Consulting Group</i>	Develop the NHT project management system.	\$420 480
	Subtotal	<u>\$1 021 775</u>
	Total	\$2 289 198

6 ACCOUNT PAYMENT PERFORMANCE AND CONTRACTUAL ARRANGEMENTS

Account payment performance

Particulars	Number of accounts paid	Percentage of accounts paid (by number)	Value in \$A of accounts paid	Percentage of accounts paid (by value)
Paid by the due date	80 906	78	440 887 375	92
Paid late and paid 30 days or less from the due date	18 381	15	30 982 846	6
Paid late and paid more than 30 days from the due date	3 730	7	7 080 600	2

The adjusted information reflects that 78% of transactions are paid by the due date, representing 92% of total transactions value. Further, 93% of transactions are paid within 30 days of the due date, representing 98% of total transactions value.

Contractual arrangements

PIRSA did not enter into any contractual arrangements (where the total value of the contract exceeds \$4 million and the contract extends beyond a single year) during the year.

7 YEAR 2000 COMPLIANCE

The PIRSA Year 2000 Project has made continual progress during the year towards ensuring that the impact on the agency of the Year 2000 date problem will be minimal. The Project Board consisting of the Corporate Services, Petroleum and Information Management Directors met monthly to provide direction and support to the Project Manager. The project team continued to raise awareness via a bimonthly newsletter, posters, information on the PIRSA Intranet and presentations. A program of assessment, correction and testing was undertaken for information technology (IT) hardware and software, buildings and embedded chip equipment and important suppliers of goods and services.

A separate Year 2000 local area network and associated Windows NT and Unix Servers were established to test systems for Year 2000 compliance. In addition, all new systems have to undergo testing in this environment to ensure compliance as part of the acceptance process.

System upgrades were completed for:

- Rural Finance Information System
- Financial Support Systems
- CONCEPT Human Resource and Payroll Systems
- Farm Chemicals inFINDER System
- replacement/upgrade of local area network servers

Projects nearing completion include:

- PC upgrades and replacement
- implementation of Microsoft Outlook e-mail system
- SARDI Catch and Effort System
- replacement/upgrade of Unix environments

Buildings and associated infrastructure are being reviewed and assessed jointly by PIRSA and the Department of Administrative and Information Services' Real Estate Management Group. The majority of buildings have been now been assessed and passed as low risk. Minor remedial action is required at the Plant Research Centre, Urrbrae.

Following the establishment of the embedded chip equipment inventory, manufacturers and suppliers were contacted to determine compliance. In most cases suppliers confirmed compliance. Noncompliant equipment has been upgraded or scheduled for upgrade in the near future.

The contingency planning phase of the project commenced with an expectation of completion by 30 September 1999.

In summary the Project Board is satisfied with the progress of the Year 2000 Project and considers that the transition from 1999 to 2000 will have minimal impact on this agency provided that the essential services of electricity, water, gas and fuel supplies are maintained.

Critical summary (at 30 June 1999)

Business function*	Inventory status %	Assessment %	Compliance plan %	Correction %	Testing %	Contingency %
IT	100%	100%	100%	80%	45%	10%
Non IT	100%	95%	95%	50%	50%	10%
Building	100%	85%	85%	25%	25%	10%
External	100%	95%	95%	not applicable	not applicable	10%

* IT-based systems, communications systems and data interfaces equipment with embedded processors controlling their operation (non IT) building and environmental control systems exposure to Year 2000 risks from a third party (external)

Major risks (at 30 June 1999)

Name of business unit/agency	Description of year 2000 major risks	Date remediated/to be remediated	Contingency plan completed/to be completed
PIRSA	No major risks identified.		

8 OVERSEAS TRAVEL

Overseas travel by PIRSA employees for the period 1 July 1998 to 30 June 1999 is summarised below and has been prepared in accordance with Direction No. 9 of the *Public Sector Management Act 1995*. In 1998–99, 68 overseas visits were made by PIRSA employees, for a total cost of \$302 010.

PIRSA's financial support for overseas visits varied from full payment (salary, fares and necessary living expenses) to nil. In the latter instance there are generally two categories. All costs, including salary, are either externally funded or the monies are recouped through charging consultancy fees.

PURPOSE	DESTINATION	EMPLOYEES	AGENCY COST ^{1, 2}
OFFICE OF THE CHIEF EXECUTIVE			
Participated in the HOFEX '99 Market Awareness Mission led by the Premier and coordinated by PIRSA, State Development and the Business Centre. (See also Agricultural Industries and Industry Development Groups.)	Hong Kong, Taiwan	1	\$10 500
			Subtotal \$10 500
AGRICULTURAL INDUSTRIES GROUP			
Participated in the Australian Fresh Fruit Company Pink Lady European Tour to identify improvements for PIRSA programs which provide support to horticulture exporters.	France, Germany, Switzerland, Italy, UK	2	\$16 600
Participated in the HOFEX '99 Market Awareness Mission, leading and assisting groups of growers, and assisting with visits to associated points of interest. (See also Office of the Chief Executive and Industry Development Group.)	Hong Kong	4	\$13 740
Investigated new technology transfer processes, techniques and equipment for the Australian Potato Industry; evaluated new service delivery opportunities.	USA	1	\$6 500
Attended the Food and Agriculture Organisation of the United Nations' Asia and Pacific Seed Association Meeting, Bangkok, to facilitate trade, training and consultancy possibilities and maintenance of a global policy perspective.	Thailand	1	\$970
Attended the Asia and Pacific Seed Association Meeting, Manila, to create trade links and international contacts in the seed sector.	Philippines	1	\$970
Undertook a SAGRIC consultancy, as part of an AusAID project, to train Ministry of Agriculture livestock staff in modern extension techniques for farmer groups.	Palestine	1	nil
			Subtotal \$38 780
FISHERIES–AQUACULTURE GROUP			
Presented two sessions, on South Australia's fisheries compliance programs, at a workshop in Capetown on enforcement of South Africa's <i>Marine Living Resources Act</i> .	South Africa	1	\$2 570
			Subtotal \$2 570
SOUTH AUSTRALIAN RESEARCH AND DEVELOPMENT INSTITUTE			
Aquatic sciences			
Attended the 2nd International Symposium on Fish Otolith Research and Application.	Norway	1	nil
Presented a paper at a workshop on rehabilitating overfished abalone stocks.	Canada	1	\$1 140
Undertook consultation regarding the model interface for a lobster fishery in New England.	USA	1	\$1 410
Initiated and commenced a collaborative research project on integrated aquaculture in the highland region of the Vinh Phuc Province.	Vietnam	3	\$2 800
Progressed the collaborative research project on integrated aquaculture in the highland region of the Vinh Phuc Province; enhanced the linkage between Australian and Vietnamese research in freshwater aquaculture; examined opportunities for further mutually beneficial projects.	Vietnam	2	\$900
Initiated collaborative research on wastewater treatment and aquaculture production as part of the Australian India New Horizons initiative.	India	1	\$2 000

¹ Includes salary component.

² Some overseas travel incurs no agency cost (see notes at start of table).

PURPOSE	DESTINATION	EMPLOYEES	AGENCY COST ^{1, 2}
Crops			
Presented papers at the International Wheat Genetics Symposium, Canada, and the International Congress of Plant Pathology, Scotland; visited two German laboratories to discuss molecular genetics of disease resistance.	Canada, UK, Germany	1	\$3 370
Presented a poster display and talk (<i>Rhizoctonia</i> Workshop) at the 7th International Congress of Plant Pathology; participated in a cereal pathology tour.	UK, Canada	1	\$2 930
Attended the 3rd European Association for Grain Legume Research Conference.	Spain, Canada	1	\$3 320
Collected rhizobium for a broad range of non-traditional pasture legumes under the National Annual Pasture Legume Improvement Program.	Morocco	1	nil
Worked within the wheat, barley and biotechnology programs for an extended period of time to strengthen the existing collaboration between the International Wheat and Maize Improvement Centre and the Waite Campus Institutes.	Mexico	1	\$14 300
Collected biological control agents for cutleaf mignonette.	Spain, France	1	\$1 640
Collected and imported seed-feeding beetles for biological control of cutleaf mignonette.	Turkey, France	1	\$3 290
Provided an overview of the insecticide resistance management strategy for Diamondback Moth in Australian brassica crops.	Switzerland	1	\$780
Negotiated with United States Department of Agriculture authorities over a quarantine problem that impedes the access of citrus trade to the USA; discussed the biology and integrated pest management of <i>Citrophilous</i> mealybug with Italian entomologists.	USA, Italy	1	\$2 730
Attended a Cooperative Research Centre for Molecular Plant Breeding Board meeting.	Mexico	1	\$4 720
Horticulture			
Technical problem solving, in association with Netafim agronomists and design engineers, for the adoption of the 'partial rootzone drying' irrigation management strategy; attended expert training in the use of new technologies in monitoring plant water stress.	Israel	1	\$1 920
Attended the Prunus Breeders Conference.	Mexico	1	\$1 520
Attended the Prunus Breeders Conference, Prosser.	USA	1	\$2 130
Presented a paper at an International Irrigation Symposium; attended the North West Chapter of the American Society of Enology and Viticulture Seminar and the World Vinifera Conference; made hosted visits to various sites.	USA, Canada	1	\$7 000
Presented a paper at an International Irrigation Conference; investigated current research work and practices of the use of urban and agricultural waste waters in irrigation.	USA	1	\$4 070
Met with directors and researchers at the Chinese National Respiratory for Apricots and Plums to further develop cooperative projects and programs in apricot breeding and sharing of genetic resources.	China	1	\$1 470
Assessed apricot cultivars at the Chinese National Germplasm Respiratory for Apricots and Plums; assisted in the establishment of routine assessment procedures and the development of a computerised cataloguing system.	China	1	\$2 760
Accompanied a group of stone fruit growers inspecting potential new varieties of apricot and peach germplasm, looking at management practices, and assessing the potential export market to China.	China	1	\$1 500
Inspected trial fruit to assess effectiveness of oil treatment and sanitation procedures on storage quality; undertook collaborative research at the University of California (Davis), Riverside, on post-harvest oil.	USA	1	nil
Attended the Potato Association of America Conference and the International Plant Pathology Congress; inspected the latest developments in disease diagnosis at various laboratories.	USA, UK	1	\$5 200
Attended the 1998 Brighton Conference on Pests and Diseases and the 9th Annual Cambridge Potato Conference; met with researchers at Rothamsted Institute of Arable Crops Research Centre to discuss potato pathogens.	UK	1	nil

PURPOSE	DESTINATION	EMPLOYEES	AGENCY COST ^{1, 2}
Attended the Triennial Conference of the European Association of Potato Research, Sorrento.	Italy	1	\$1 860
Reviewed international developments in vine improvement programs and germplasm management.	USA, Canada, Germany, France, Hungary, Italy	1	\$5 360
Participated in a study tour to observe cool chain handling systems and procedures; assessed the impact of these on produce quality; contacted various commercial and scientific personnel.	USA	1	\$7 750
Attended the International Course on the identification of Fungi of Agricultural and Environmental Significance at the Mycological Institute; visited diagnostic laboratories in York and Wolverhampton.	UK	1	nil
Visited research collaborators at four institutes for discussions and critical review of SARDI programs; attended the 4th International Symposium on Development of New Floriculture Crops; and investigated potential for commercialisation of improved <i>Ixodia</i> varieties in floriculture markets.	Greece, Germany, Netherlands, UK	1	\$4 950
Livestock systems			
Inspected and rated lucerne breeding trials in Argentina; inspected lucerne research programs of the Argentinian Government's agricultural research agency; attended the North American Alfalfa (Lucerne) Improvement Conference.	Argentina, USA	1	\$3 770
Collected pasture germplasm for introduction into Australia as part of the national plant improvement programs.	Greece	1	\$2 190
Attended the International Pig Veterinary Science Congress to reinforce SARDI's lead role in meat hygiene risk assessment.	UK	1	\$1 270
Presented two papers and a poster display, on research undertaken at the Pig and Poultry Production Institute, at the International Pig Veterinary Science Congress; visited various research institutes to present seminars and discuss research projects and outcomes.	UK, Ireland, France	1	\$2 510
Presented a paper at the Dust Control in Animal Production Facilities International Symposium; visited farms to present seminar on research work undertaken at the Pig and Poultry Production Institute; met with nominated residents at various universities.	Spain, Denmark, Netherlands	1	nil
Presented a paper at the 50th Anniversary Conference of the International Congress of Animal Reproduction.	Italy	1	\$880
Developed appropriate animal cloning skills at the Roslin Institute, Scotland.	UK	1	\$29 320
Inspected latest developments in cloning at the Roslin Institute, Scotland.	UK	1	nil
Presented a paper at the International Symposium of Trace Elements in Man and Animals.	France	1	\$1 450
Visited Irian Jaya and PNG as part of an Australian Centre for International Agricultural Research project for development of pig systems in Indonesia, PNG and Vietnam.	Indonesia, PNG	1	\$1 210
Attended symposiums on behalf of the Australian Quarantine and Inspection Service on pig reproduction and respiratory syndrome and Aujeszky's disease; visited various animal disease control authorities.	France, Denmark, Netherlands, Germany,	1	\$2 490
Presented a paper at the International Symposium on Arid Region Soils.	Turkey	1	\$530
Met with research leaders and scientific staff and inspected institutions and sites in four provinces of China to finalise details for an Australian Centre for International Agricultural Research proposal.	China	1	\$1 200
Other			
Provided advice to a SAGRIC Project Team on the establishment of the Biosaline Agriculture Centre, Dubai.	United Arab Emirates	1	nil
Continued involvement in a SAGRIC Project Team providing advice to the Islamic Development Bank on the establishment of a Biosaline Agriculture Centre, Dubai.	United Arab Emirates	1	nil
Spoke at the opening of the 13th International Workshop on Statistical Modelling, New Orleans; attended the 23rd European Meeting of Statisticians, Vilnius; visited Biomathematics and Statistics and other statistical groups in the UK.	USA, UK, Lithuania	1	\$2 300
Subtotal			\$141 940

PURPOSE	DESTINATION	EMPLOYEES	AGENCY COST ^{1, 2}
SUSTAINABLE RESOURCES GROUP			
Negotiated arrangements for involvement of Greek nurseries in the State Flora Australia Business; attended a symposium, Crete; discussed long-term marketing arrangements and the feasibility of setting up a nursery with Israel's agricultural export company.	Greece, Israel	1	\$5 430
Undertook a SAGRIC consultancy for KADCO, Egypt Irrigation Development, reviewing the appraisal study, assessing soil conditions and recommending timing for water take-offs.	Egypt	1	nil
Presented a paper at the International Atomic Energy Agency Water Resources Conference, Vienna; participated in an International Atomic Energy Agency subcommittee meeting on the Great Artesian Basin.	Italy	1	\$5 380
Presented a paper on aquifer storage and recovery at the 3rd International Symposium on Artificial Recharge of Groundwater, Amsterdam; met with colleagues at various research institutions and water supply companies to discuss developments in artificial recharge technology.	Netherlands, Israel	1	\$11 960
			Subtotal \$22 770
MINERAL RESOURCES GROUP			
Participated in a field trip organised by the Chinese Academy of Sciences to study the Neoproterozoic and Cambrian rocks in southern China and facilitate correlation with similar rocks in South Australia.	China	1	\$3 650
Attended the Gemmological Association of Australia Gemstone Conference and Excursion.	Thailand, Laos	2	\$2 000
			Subtotal \$5 650
PETROLEUM GROUP			
Promoted petroleum exploration and development opportunities, particularly in the Cooper Basin, at the North American Prospectors Expo '99, Houston.	USA	2	\$10 390
Promoted petroleum exploration and development opportunities, focussing on the Cooper, Bight and Duntroon Basins, at the American Association of Petroleum Geologists Conference, San Antonio, and at the Canadian Petroleum Prospect Exchange; presented two seminars in Houston and Calgary; visited various independent and major exploration companies.	USA, Canada	2	\$31 030
			Subtotal \$41 420
INDUSTRY DEVELOPMENT GROUP			
Planned the program of activities for the HOFEX '99 Market Awareness Mission.	Hong Kong	2	\$8 490
Implemented and managed 40 food industry participants in the HOFEX '99 Market Awareness Mission. (See also Office of the Chief Executive and Agricultural Industries Group.)	Hong Kong, China	1	\$7 160
Developed relations for trade and investment between Dubai and South Australia as part of a broad-based State Development Mission; investigated opportunities for the development of trade with and through Lebanon.	United Arab Emirates, Lebanon	1	\$9 400
Promoted mineral exploration and development opportunities at the All the Best from Australia Trade Mission.	Philippines	1	\$4 020
Investigated opportunities for supplying vegetables to the food processing and food service markets in Japan, as part of the Supermarket to Asia Mission; explored the development of an Australian vegetable export network with South Australia as a key player; visited FOODEX, Japan's food expo.	Japan	1	\$4 310
			Subtotal \$33 380
SOUTH AUSTRALIAN RURAL COMMUNITIES OFFICE			
Attended the 2nd International Women in Agriculture Conference, Washington DC.	USA	1	\$5 000
			Subtotal \$5 000
			TOTAL \$302 010

9 FREEDOM OF INFORMATION

The following information is published as a requirement of the *Freedom of Information Act 1991*, section 9.

Agency's structure and functions

These are set out elsewhere in this annual report.

Effect of agency's functions on members of the public

The agency has a major indirect effect on the general public by creating jobs and wealth through advice, encouragement and regulation of various primary industries and resources. The groups of the agency providing those services are:

- Agriculture Industries (field crops, horticulture, livestock, dairying and similar)
- Fisheries and Aquaculture
- South Australian Research and Development Institute
- Sustainable Resources
- Mineral Resources
- Petroleum
- Office of Energy Policy
- Industry Development
- Office of Regional Development

Arrangements for public participation in policy formulation

Officers from the agency are members of many committees (described elsewhere in this annual report) to which the public and/or industry has access.

Documents held by the agency

The agency's business is recorded in the following categories of documents:

- files on:
 - administration
 - human resources
 - the functions above
- policy documents and administrative instructions
- agency publications on a range of topics in the form of books, brochures, fact sheets, reports and maps (available for purchase in hard copy, microfiche and in some cases digital format; some are free of charge)
- registers to most tenements for primary industries and resources (available for inspection; fisheries excepted)
- photographs generated by the agency, including many historical images (available as copies at cost)

- geoscientific reports and data acquired through the activities of exploration companies under provisions of the Mining and Petroleum Acts; this material is confidential at source but is gradually released onto open file, and made available as copies at cost

Accessing documents

PIRSA is an information provider as the points above suggest. As a general rule the nearest office of the agency (listed in the Adelaide and various country White Pages) can assist with document acquisition. Note that privacy principles (Freedom of Information) apply to documents concerning third parties.

Amending personal records

Applications for access to, or amendment of, personal files held by the agency should be addressed to the Freedom of Information Coordinator as detailed below.

Point of contact

All Freedom of Information inquiries should be addressed to:

Freedom of Information Coordinator
Primary Industries and Resources South
Australia
GPO Box 1671
Adelaide SA 5001

10 FINANCIAL STATEMENTS

Primary Industries and Resources South Australia

Operating statement for the year ending 30 June 1999

	Note	1998-99 \$'000	1997-98 \$'000
OPERATING EXPENSES			
Employee costs	4	73 277	47 312
Supplies and services	6	63 209	43 107
Grants	5	18 110	12 041
Interest		2 930	2 852
Provision for doubtful debts	7	147	(1 607)
Depreciation and amortisation	8	4 905	3 963
Other	9	2 560	4 489
Total operating expenses		165 138	112 157
OPERATING REVENUES			
User charges, fees and rentals	10	24 315	18 738
Advances and grants	11	29 930	19 409
Interest	12	7 255	6 297
Sales of goods	13	3 832	3 287
Other	15	4 235	3 755
Total operating revenues		69 567	51 486
NET COST OF SERVICES		95 571	60 671
REVENUES FROM GOVERNMENT			
Pursuant to <i>Appropriation Act 1998</i>		104 229	56 224
INCREASE (DECREASE) IN NET ASSETS RESULTING FROM OPERATIONS	36	8 658	(4 447)
ACCUMULATED SURPLUS BROUGHT FORWARD			
Transfer from committed grants reserve	36	1 822	429
Transfer from interest equalisation fund		-	2 000
ACCUMULATED SURPLUS CARRIED FORWARD	36	154 351	143 871

Statement of financial position at 30 June 1999

	Note	1998-99 \$'000	1997-98 \$'000
CURRENT ASSETS			
Cash	2(h), 33	79 906	62 901
Receivables	16	4 527	4 715
Loans	18	2 010	2 777
Inventories	17	2 003	2 116
Other	20	51	16
Total current assets		88 497	72 525
NON-CURRENT ASSETS			
Loans	18	35 448	47 772
Property, plant and equipment	19	102 532	97 242
Inventories	17	125	107
Other	20	35	-
Total non-current assets		138 140	145 121
Total assets		226 637	217 646
CURRENT LIABILITIES			
Creditors and accruals	21	4 525	6 316
Borrowings	22	1 280	995
Accrued interest on borrowings		643	860
Provision for employee entitlements	23	5 909	6 083
Other		-	77
Total current liabilities		12 357	14 331
NON-CURRENT LIABILITIES			
Creditors and accruals	24	2 810	2 378
Borrowings	22	30 804	38 056
Provision for employee entitlements	23	15 254	13 498
Lease incentive	2(f)	3 607	-
Total non-current liabilities		52 475	53 932
Total liabilities		64 832	68 263
NET ASSETS			
EQUITY			
General reserve	25	2 000	2 000
Committed grants reserve	26	1 690	3 512
Asset revaluation reserve		3 764	-
Accumulated surplus		154 351	143 871
TOTAL EQUITY	36	161 805	149 383
Commitments	27		
Contingent liabilities	35		

Statement of cash flows for the year ending 30 June 1999

	Note	1998-99 Inflows (Outflows) \$'000	1997-98 Inflows (Outflows) \$'000
CASH FLOWS FROM OPERATING ACTIVITIES			
Payments to suppliers and employees		(136 390)	(86 250)
Grants paid		(18 075)	(12 041)
Receipts from customers		32 955	23 759
Grants received		29 884	19 409
Interest on loans to the rural sector		4 744	5 554
Interest paid on loans		(3 147)	(3 403)
Interest on cash balances		3 039	2 301
CASH FLOWS FROM GOVERNMENT			
Pursuant to Appropriation Act		104 229	56 224
Net cash provided by operating activities	33	17 239	5 553
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchase of property, plant and equipment		(6 815)	(4 595)
Proceeds from sale of property, plant and equipment		550	481
Loans advanced to the rural sector		(324)	(954)
Loans repaid by the rural sector		13 338	18 849
Net cash provided by investing activities		6 749	13 781
CASH FLOWS FROM FINANCING ACTIVITIES			
Borrowings from Treasury		45	625
Capital loss		-	(3 185)
Principal repaid to Treasury/SA Financing Authority		(7 028)	(19 258)
Net cash used in financing activities		(6 983)	(21 818)
NET INCREASE (DECREASE) IN CASH HELD		17 005	(2 484)
CASH AT 1 JULY		62 901	65 385
CASH AT 30 JUNE		79 906	62 901

Program schedule of administered expenses and revenues for the year ending 30 June 1999

	Barley Industry Levy	Wheat Industry Levy	Cattle Compensation	Gulf St Vincent Prawn Fishery	Soil Conservation	Swine Compensation	Fisheries Research and Development	Parafield Research Centre	Sale of land	Egg Industry Deregulation	Natural Heritage Trust	Natural Gas Authority	Energy Management Task Force	SA Water Corporation	Other	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
ADMINISTERED EXPENSES																
Payment to Cooper Basin Producers	-	-	-	-	-	-	-	-	-	-	-	187 046	-	-	-	187 046
Natural Heritage Trust Interest payment	-	-	-	535	-	-	-	-	-	-	22 637	-	-	-	-	22 637
Fisheries licences	-	-	-	-	-	-	8 841	-	-	-	-	-	-	-	-	8 841
Compensation payments	-	-	63	-	-	-	-	-	-	-	-	-	-	-	-	63
Commonwealth levies	130	617	-	-	-	-	-	-	-	-	-	-	-	-	121	868
Salaries costed to administered funds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	192	192
Supplies and services	-	-	222	-	10	28	-	-	-	-	4	-	752	-	38	1 054
Sitting fees	-	-	-	-	-	-	-	-	-	-	11	-	-	-	1	12
Grants	-	-	-	-	-	61	64	-	-	-	1	-	-	-	-	126
Subsidy	-	-	-	-	-	-	-	-	-	-	-	-	-	70 838	-	70 838
Other	-	-	-	-	-	-	75	1 220	3	-	-	-	-	-	18	1 316
Total expenses	130	617	285	535	10	89	8 980	1 220	3	22 653	187 046	752	70 838	370	293 528	
ADMINISTERED REVENUES																
Natural gas revenue	-	-	-	-	-	-	-	-	-	-	-	187 047	-	-	-	187 047
Natural Heritage Trust	-	-	-	-	-	-	-	-	-	-	23 885	-	-	-	-	23 885
Fisheries licences	-	-	-	916	-	-	8 288	-	-	-	-	-	-	-	4	9 208
Advances and grants	-	-	-	-	-	-	180	-	-	-	-	-	-	-	-	180
Commonwealth levies	284	461	-	-	-	-	-	-	-	-	-	-	-	-	148	893
Stamp duties	-	-	180	-	-	68	-	-	-	-	-	-	-	-	-	248
Interest on cash balances	4	1	134	7	1	53	-	-	-	-	-	-	-	-	11	211
Appropriation	-	-	-	-	-	-	-	-	-	-	-	-	-	70 838	1	70 839
Other	-	-	25	-	-	-	21	1 220	-	39	-	899	-	-	130	2 334
Total revenues	288	462	339	923	1	121	8 489	1 220	-	23 924	187 047	899	70 838	294	294 845	
ADMINISTERED REVENUES LESS EXPENSES	158	(155)	54	388	(9)	32	(491)	-	(3)	1 271	1	147	-	(76)	1 317	

Program schedule of administered expenses and revenues for the year ending 30 June 1998

	Barley Industry Levy	Wheat Industry Levy	Cattle Compensation	Gulf St Vincent Prawn Fishery	Soil Conservation	Swine Compensation	Fisheries Research and Development	Potato Industry Fund	Egg Industry Deregulation	Natural Heritage Trust	Natural Gas Authority	Energy Management Task Force	Other	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
ADMINISTERED EXPENSES														
Payment to Cooper Basin Producers	-	-	-	-	-	-	-	-	-	-	226 200	-	-	226 200
Natural Heritage Trust	-	-	-	-	-	-	-	-	-	18 382	-	-	-	18 382
Interest payment	-	-	-	201	-	-	-	-	-	-	-	-	-	201
Fisheries licences	-	-	-	-	-	-	9 403	-	-	-	-	-	-	9 403
Compensation payments	-	-	41	-	-	-	-	-	-	-	-	-	46	87
Commonwealth levies	190	316	-	-	-	-	-	-	-	-	-	-	78	584
Salaries costed to administered funds	-	-	9	-	8	-	-	-	-	-	-	-	-	17
Supplies and services	-	-	222	-	39	12	-	-	-	15	-	788	-	1 076
Sitting fees	-	-	-	-	-	1	-	-	-	32	-	-	-	33
Grants	-	-	3	-	-	47	-	-	-	-	-	-	-	50
Other	-	-	2	-	-	-	98	1 527	52	-	-	68	245	1 992
Total expenses	190	316	277	201	47	60	9 501	1 527	52	18 429	226 200	856	369	258 025
ADMINISTERED REVENUES														
Natural gas revenue	-	-	-	-	-	-	-	-	-	-	226 200	-	-	226 200
Natural Heritage Trust	-	-	-	-	-	-	-	-	-	18 677	-	-	-	18 677
Fisheries licences	-	-	-	200	-	-	11 052	-	-	-	-	-	-	11 252
Advances and grants	-	-	-	-	32	-	-	-	-	-	-	-	-	32
Commonwealth levies	189	314	-	-	-	-	-	-	-	-	-	-	90	593
Stamp duties	-	-	164	-	-	82	-	-	-	-	-	-	-	246
Interest on cash balances	-	3	147	1	1	51	-	6	-	-	-	68	10	287
Other	-	-	12	-	-	14	-	-	106	2	-	582	174	890
Total revenues	189	317	323	201	33	147	11 052	6	106	18 679	226 200	650	274	258 177
ADMINISTERED REVENUES LESS EXPENSES	(1)	1	46	-	(14)	87	1 551	(1 521)	54	250	-	(206)	(95)	152

Program schedule of administered assets and liabilities at 30 June 1999

	Barley Industry Levy \$'000	Wheat Industry Levy \$'000	Cattle Compensation \$'000	Gulf St Vincent Prawn Fishery \$'000	Soil Conservation \$'000	Swine Compensation \$'000	Fisheries Research and Development \$'000	Parafield Research Centre \$'000	Sale of land \$'000	Egg Industry Deregulation \$'000	Natural Heritage Trust \$'000	Natural Gas Authority \$'000	Energy Management Task Force \$'000	SA Water Corporation \$'000	Other \$'000	Total \$'000
ADMINISTERED ASSETS																
Current assets																
Receivables	-	-	-	-	-	-	-	-	-	-	-	-	18	-	41	59
Cash	158	(152)	2 776	387	21	1 017	1 455	-	467	1 773	399	1 320	-	457	10 078	
Total	158	(152)	2 776	387	21	1 017	1 455	-	467	1 773	399	1 338	-	498	10 137	
ADMINISTERED LIABILITIES																
Current liabilities																
Creditors and accruals	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	13
Total	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	13
Non-current liabilities																
Borrowings	-	-	-	2 655	-	-	-	-	-	-	-	398	-	-	153	3 206
Total liabilities	-	-	-	2 655	-	-	-	-	-	-	-	398	13	-	153	3 219
NET ASSETS	158	(152)	2 776	(2 268)	21	1 017	1 455	-	467	1 773	1	1 325	-	345	6 918	
EQUITY																
Accumulated surplus (deficit)	158	(152)	2 776	(2 268)	21	1 017	1 455	-	467	1 773	1	1 325	-	345	6 918	

Program schedule of administered assets and liabilities at 30 June 1998

	Barley Industry Levy \$'000	Wheat Industry Levy \$'000	Cattle Compensation \$'000	Gulf St Vincent Prawn Fishery \$'000	Soil Conservation \$'000	Swine Compensation \$'000	Fisheries Research and Development \$'000	Potato Industry Fund ¹ \$'000	Egg Industry Deregulation \$'000	Natural Heritage Trust \$'000	Natural Gas Authority \$'000	Energy Management Task Force \$'000	Other \$'000	Total \$'000
ADMINISTERED ASSETS														
Current assets														
Receivables	–	1	11	–	–	4	226	–	–	–	19 547	–	–	19 789
Cash	–	2	2 722	–	24	985	1 946	–	469	571	403	1 173	336	8 631
Total	–	3	2 733	–	24	989	2 172	–	469	571	19 950	1 173	336	28 420
ADMINISTERED LIABILITIES														
Current liabilities														
Creditors and accruals	–	–	1	–	1	–	–	–	–	–	19 552	–	–	19 554
Provision for employee entitlements	–	–	10	–	6	–	–	–	–	–	–	–	–	16
Total	–	–	11	–	7	–	–	–	–	–	19 552	–	–	19 570
Non-current liabilities														
Borrowings	–	–	–	2 915	–	–	–	–	–	–	398	–	–	3 313
Total liabilities	–	–	11	2 915	7	–	–	–	–	–	19 950	–	–	22 883
NET ASSETS	–	3	2 722	(2 915)	17	989	2 172	–	469	571	–	1 173	336	5 537
EQUITY														
Accumulated surplus (deficit)	–	3	2 722	(2 915)	17	989	2 172	–	469	571	–	1 173	336	5 537

¹ Legislative changes have resulted in this account being closed and the funds transferred to a fund administered by industry.

Output schedule of expenses and revenues at 30 June 1999

	Information services	State resource regulation services	Support services to Government	Facilitation services	Total
	\$'000	\$'000	\$'000	\$'000	\$'000
EXPENSES					
Supplies and services	31 278	13 052	11 284	7 595	63 209
Employee costs	40 103	13 166	11 012	8 996	73 277
Grants	3 043	562	11 634	2 871	18 110
Depreciation/amortisation	2 730	856	734	585	4 905
Interest	2	–	2 928	–	2 930
Provision for doubtful debts	–	–	147	–	147
Other	2 443	–	117	–	2 560
Total expenses	79 599	27 636	37 856	20 047	165 138
REVENUES					
User charges, fees and rentals	10 149	12 089	1 213	864	24 315
Advances and grants	14 216	1 404	8 364	5 946	29 930
Sales	2 443	29	12	1 348	3 832
Interest	341	341	5 004	1 569	7 255
Other	1 839	358	1 481	557	4 235
Total revenues	28 988	14 221	16 074	10 284	69 567
NET COST OF SERVICES	50 611	13 415	21 782	9 763	95 571
GOVERNMENT REVENUES					
Pursuant to Appropriation Act	52 452	13 818	27 865	10 094	104 229
INCREASE IN NET ASSETS RESULTING FROM OPERATIONS	1 841	403	6 083	331	8 658

Notes to and forming part of the financial statements

1. Department purpose and funding

PIRSA is a key agency for economic development, focused on delivering services which increase the prosperity of South Australians, improve their quality of life and ensure the sustainable development of the State's resource base for future generations. PIRSA's major customer and stakeholder is the Government of South Australia but PIRSA works with and delivers a wide range of services to the agriculture, aquaculture, natural resources, fisheries, minerals and petroleum, research and development and energy sectors, regional communities and Government through 58 locations around South Australia.

The principle source of funds for PIRSA programs consists of monies appropriated by Parliament, research grants from industry research corporations, licence receipts, federal grants and trading operations.

2. Summary of significant accounting policies

(a) Basis of accounting

The 'Financial statements' present the operations of PIRSA for the period 1 July 1998 to 30 June 1999.

The accounts have been prepared in accordance with applicable Australian accounting standards, Statements of Accounting Concepts and Treasurer's instructions promulgated under the provisions of the *Public Finance and Audit Act 1987*.

The accounts have been prepared on the accrual basis of accounting. Except for certain assets which are at current cost valuation, the accounts have been prepared in accordance with the historical cost convention.

(b) The reporting entity

All funds through which the agency controls resources to carry on its functions have been included in these financial statements.

In the process of reporting on the agency as a single unit, all internal transactions have been eliminated in full.

Administered resources. PIRSA administers but does not control certain resources on behalf of the South Australian Government, the Federal Government, private sector organisations and other State Government agencies. PIRSA is accountable for the transactions involving those administered resources, but does not have the discretion to deploy the resources for achievement of the agency's objectives. The agency acts only

on behalf of the aforementioned bodies. The accrual basis of accounting has been used in accounting for administered resources.

Transactions and balances relating to these administered resources are not recognised as agency revenues, expenses, assets or liabilities but are disclosed in the applicable program schedules.

Trust funds. PIRSA has received monies in a trustee capacity for trusts as set out in Note 30. As the agency performs only a custodial role in respect of these monies, and because the monies cannot be used for achievement of the agency's objectives, they are not brought to account in the financial statements, but are shown in Note 30.

(c) User charges, fees and rentals

User charges, fees and rentals controlled by PIRSA are recognised as revenues. User charges, fees and rentals are controlled by the agency where they can be deployed for achievement of PIRSA's objectives.

User charges, fees and rentals collected by PIRSA, but not controlled by it, are not recognised as revenues: they are reported as administered revenues in the 'Program schedule of administered expenses and revenues'.

(d) Appropriations, grants and other contributions

All appropriations, grants and other contributions are recognised as revenues when the agency obtains control over the assets: this would normally be upon receipt.

Amounts appropriated to the agency for transfer to eligible beneficiaries in accordance with legislation or other authoritative requirements, are not controlled by PIRSA and therefore not recognised as revenues: they are reported as administered revenues in the 'Program schedule of administered expenses and revenues'. Similarly, the amounts transferred are not recognised as expenses, but are reported as administered expenses in the 'Program schedule of administered expenses and revenues'.

(e) Royalties

PIRSA receives royalties, levied on minerals and petroleum production, on behalf of the State Government. The royalties received are deposited into the Consolidated Account. As PIRSA has no control over these monies and is unable to use the monies to achieve its own objectives, royalties received are not recognised in the financial statements, but are disclosed in Note 14.

(f) Non-current assets

Items of property, plant and equipment are recorded in the 'Statement of financial position' as detailed below unless otherwise indicated:

(i) Land and buildings. PIRSA has adopted the requirements of the Department of Treasury and Finance Accounting Policy Statement APS 3 'Revaluation of non-current assets' and Accounting Policy Statement APS 6 'Land and improvements'.

The majority of land and buildings have been independently valued by Valcorp Pty Ltd for all assets held at 30 June 1999, on the basis of deprival value being written-down current cost or current market buying price. Some land is brought to account at valuations by the South Australian Valuer-General. Buildings include infrastructure which represents roads, fencing, signage etc. Updated valuations are obtained every three years.

(ii) Plant and equipment. Plant and equipment are brought to account at cost. Items of \$2000 and greater are capitalised and amounts less than \$2000 are expensed in the period incurred.

(iii) Depreciation. All buildings, plant and equipment having a limited useful life are systematically depreciated over their useful lives in a manner which reflects the consumption of their service potential.

Depreciation is provided on a straight line basis which is reviewed annually. The major depreciation periods are:

Buildings	60-70 years
Plant and equipment	3-20 years
Infrastructure	2-32 years

(iv) Leasehold improvements. Leasehold improvements are amortised over the shorter of either the unexpired period of the lease or the estimated useful lives of the improvements.

(v) Lease incentives under non-cancellable operating leases. On 1 August 1998, PIRSA, through the Department for Administrative and Information Services, entered into a 10-year, non-cancellable operating lease over part of a property located at 101 Grenfell Street, Adelaide.

The fit-out costs for this leased property were met by the lessor. In accordance with Urgent Issues Group Abstract 3, this fit-out has been treated as a lease incentive giving rise to both an asset and a liability being the cost of the fit-out. Both the asset and liability are amortised over the period of the lease.

(g) Employee entitlements

(i) Salaries and wages and annual leave. Liabilities for salaries and wages and annual leave are recognised, and are measured as the amount unpaid at the reporting date at current pay rates in respect of employees' services up to that date. Expenses consequential to employment, but which are not employee entitlements, for example payroll tax and superannuation on-costs, have been recognised as non-employee entitlement liabilities where the entitlement to which they relate has been recognised as a liability.

(ii) Long service leave. A liability for long service leave is recognised, and is measured as the current value of payments to be made in respect of employees with eight or more years service up to the reporting date. This base provides a reasonable approximate of the present value of the estimated future cash outflows to be made for these entitlements. Expenses consequential to employment but which are not employee entitlements, for example payroll tax and superannuation on-costs, have been recognised as non-employee entitlement liabilities where the entitlement to which they relate has been recognised as a liability.

(iii) Superannuation. PIRSA does not record a liability for the value of superannuation payments to be made to employees at preservation age, this liability is recorded by the SA Superannuation Board. The agency records a liability for any outstanding employer superannuation contributions payable to the SA Superannuation Board. PIRSA also recognises a non-employee entitlement liability for the superannuation on-cost on long service leave, annual leave and accrued salaries and wages (Refer Note 4).

During the period PIRSA paid \$6.9 million to the Department of Treasury and Finance towards the accruing government liability for superannuation in respect of its employees.

(iv) Workers compensation. The workers compensation provision is an actuarial estimate of the outstanding liability at 30 June 1999 provided by a consulting actuary engaged through the Government Occupational Health and Injury Management Branch of the Department of the Premier and Cabinet. This actuarial estimate provides for the estimated cost of ongoing payments to employees as required under current legislation.

(h) Cash

For the purposes of the 'Statement of cash flows', cash includes cash deposits which are readily convertible to cash on hand and which are used in the cash management function on a day-to-day basis.

The agency's 1998–99 appropriation from the Department of Treasury and Finance included an accrual component of \$3.5 million. In accordance with a directive from the Department of Treasury and Finance this accrual appropriation has been classified as a deposit at call.

(i) Inventory

Inventories are measured at the lower of cost and net realisable value on an item by item basis, as illustrated in Note 17. Where the net market value of an inventory item is less than cost, provision is made for the anticipated loss on realisation.

PIRSA controlled the following types of assets at the reporting date meeting the definition of self-generating and regenerating assets as defined by Australian Accounting Standard AAS 35 'Self-generating and regenerating assets'. Livestock has been brought to account at net market value in the Statement of Financial Position. Crops, orchards and vineyards are grown primarily for research purposes but also have a commercial element. As these items are not considered to be material in terms of total asset value and are difficult to measure reliably, they have been excluded from the 'Statement of financial position'.

(j) Comparative figures for prior periods

The comparative figures shown in the notes for 1997–98 cover the period 23 October 1997 to 30 June 1998. Comparative figures have been where appropriate reclassified so as to be comparable with the figures presented for the current financial year.

(k) Provisions for doubtful debts

The collectibility of trade debts is assessed at balance date and provision is made for any doubtful accounts.

In 1997–98 the Rural Finance and Development Steering Committee adopted the policy of calculating the general doubtful debt provision as five per cent of the balance of the loan portfolio. This approach has been retained for 1998–99 and will be reviewed in 1999–2000.

3. Outputs of the agency

(a) General

Information about the agency's output classes is set out in the 'Output class summary'.

Output class reporting was adopted by PIRSA during the 1997–98 financial year, but had not previously been included in the financial statements as it had not been possible to accurately allocate all activities to

appropriate output classes in 1997–98. Because of this, there are no comparative figures shown in the output schedule.

(b) Output class summary

Output class 1: information services. The focus for this class of service delivery is on services for generation, synthesis and dissemination of information and technology.

Output class 2: State resource regulation services. The focus is on services that are required to regulate the use of and protect the State’s natural and productive resources. These services are the responsibility of PIRSA through either legislation or government policy.

Output class 3: support services to Government. The focus is on policy advice, decision support, legislation development and review and portfolio project management which covers all primary industry and resource sectors and other services to Government.

Output class 4: facilitation services. This class of outputs includes facilitation services that establish strategic alliances and strategies in the areas of wealth, health, welfare, safety, sustainability or self-reliance of industries, enterprises or communities.

4. Employee costs¹

	1998–99 \$'000	1997–98 \$'000
Salaries and wages	60 344	39 229
Superannuation	6 923	4 218
Payroll tax	4 312	2 571
Annual and long service leave expenses ²	1 698	1 294
	73 277	47 312

1 1998–99 figures include costs of \$1.2 million for adverse events and \$143 000 for the South-Eastern Water Conservation Drainage Board. Supply and service costs associated with these activities are disclosed in Note 6.

2 Annual leave and long service leave expenses only include changes in the provision assessed at balance date. In service and lump sum payments are classified as salary expenses.

5. Grants paid

	1998–99 \$'000	1997–98 \$'000
Rural Finance and Development		
Rural Adjustment Scheme	1 463	2 351
Eyre Peninsula Regional Strategy	2 271	1 043
Young Farmers Scheme	666	731
FarmBis	39	–
Project funding	191	236
Riverland Rural Partnership Program	20	–
	4 650	4 361
Other government agencies		
Animal and Plant Control Commission	3 615	1 851
University of Adelaide	592	492
Roxby Downs Council	74	362
Dog Fence Board	300	305
Other	456	268
	5 037	3 278
Private sector		
Remote Areas Energy Scheme	2 927	1 624
Collaborative payments	3 460	1 321
SA Food and Beverage Exporters Association	300	–
Rural counselling	–	171
Papaya Fruit Fly Program	190	–
Ovine Johne’s disease	105	–
Other	1 441	1 286
	8 423	4 402
Total grants paid	18 110	12 041

6. Supplies and services¹

	1998-99 \$'000	1997-98 \$'000
Professional services	16 074	-
Operational and administrative costs	13 879	-
Utility and property costs	8 030	-
Computing costs	3 398	-
Travel	6 539	-
Vehicle and equipment operating costs	1 919	-
Adverse events ²	4 029	-
South-Eastern Water Conservation Drainage Board ³	3 496	-
Telephone calls and rental	1 949	-
Loxton Irrigation Scheme ⁴	1 772	-
Staff training and development	1 434	-
Other	690	-
	63 209	43 107

- 1 PIRSA implemented a new chart of accounts during 1998-99 and adopted different disclosure categories for supplies and service costs. Due to the difficulty of restating 1997-98 figures for comparative purposes, the agency has elected not to disclose comparative figures.
- 2 Expenditure on ad-hoc emergencies that affect the agricultural and fisheries sectors (e.g. fruit fly and locusts). Employee costs associated with adverse events are disclosed in Note 4.
- 3 The drainage component of the Upper South East Dryland Salinity and Flood Management Plan will be constructed over six years. The project is funded on the basis of the State and Federal Government each contributing 37.5 per cent and the local community 25 per cent of the cost. The estimated total project cost is \$24 million. Infrastructure works ownership will be transferred to the South-Eastern Water Conservation Drainage Board, upon completion of each stage. Employee costs associated with the South-Eastern Water Conservation Drainage Board are disclosed in Note 4.
- 4 Represents a continuing program of refurbishment of the irrigation distribution infrastructure and upgrading of the pumps for the existing district and including areas for new development outside the current boundaries of the Loxton Irrigation District. The total cost of the program is estimated to be around \$40 million with the State's share being \$16 million spread over the projected construction period of six years.

7. Provision for doubtful debts

Movements in the provision for doubtful debts (refer Note 2 (k)) during the period were:

	1998-99 \$'000	1997-98 \$'000
Balance at 1 July	2 810	4 485
Less: write-offs for year	66	68
	2 744	4 417
Add: amount provided in year	147	(1 607)
Balance at 30 June	2 891	2 810

8. Depreciation and amortisation expenses

	1998-99 \$'000	1997-98 \$'000
Depreciation		
Plant and equipment	3 351	2 925
Building and improvements	1 418	941
Borehole Network	120	80
	4 889	3 946
Amortisation		
Buildings and improvements	16	17
	4 905	3 963

9. Other expenses

	1998-99 \$'000	1997-98 \$'000
Capital loss on early repayment of debt to SA Treasury and Finance	29	3 185
Guarantee fees	89	-
Loss on revaluation of the Borehole Network	263	-
Transfer of additional rental income to SA Treasury and Finance	-	621
Loss on Egg Board land and building	-	456
Prior period adjustments	2 179	-
Other	-	227
	2 560	4 489

10. User charges, fees and rentals

	1998-99 \$'000	1997-98 \$'000
Fishing licences ¹	8 384	5 370
Mining and petroleum application fees	381	294
Gas and electricity licence fees	2 631	1 001
Remote Areas Energy Scheme electricity sales	784	595
Mining and petroleum rentals	4 843	3 758
Consultancy and service	4 802	4 540
Other licences	353	1 199
Seed analysis and certification	1 196	669
Inspection and registration	866	662
Other	75	650
	24 315	18 738

1 Represents allocation of licence fees from the Fisheries Research and Development Fund.

11. Advances and grants

PIRSA received contributions from various funding sources as detailed below, expressly for the purpose of undertaking specific projects. At 30 June 1999 \$6.6 million of those contributions, which have been recognised as revenue in the 'Operating statement', are yet to be spent in the manner specified by the contributors.

	1998-99			1997-98		
	Grants received \$'000	Expenditure \$'000	Unexpended grants \$'000	Grants received \$'000	Expenditure \$'000	Unexpended grants \$'000
Commonwealth grants						
Rural Adjustment Scheme	1 204	1 204	-	2 688	2 554	134
Eyre Peninsula Regional Strategy	2 121	2 121	-	759	748	11
Riverland Rural Partnership Program	179	19	160	-	-	-
FarmBis	91	33	58	-	-	-
Loxton Irrigation Scheme	1 200	1 200	-	-	-	-
National Landcare Program ¹	-	-	-	3 119	1 781	1 338
Natural Heritage Trust	10 097	6 089	4 008	4 138	1 547	2 591
Murray Darling Basin Commission	287	283	4	374	374	-
Great Artesian Basin ¹	-	-	-	152	152	-
Other	-	-	-	418	224	194
Total Commonwealth grants	15 179	10 949	4 230	11 648	7 380	4 268

	Grants received \$'000	1998-99 Expenditure \$'000	Unexpended grants \$'000	Grants received \$'000	1997-98 Expenditure \$'000	Unexpended grants \$'000
State grants						
Upper South-East Dryland Salinity and Flood Management	-	-	-	400	400	-
Natural Heritage Trust	1 102	474	628	-	-	-
Fire blight	167	73	94	-	-	-
Online food development	113	82	31	-	-	-
Natural Gas Pipelines Authority Committee	376	-	376	-	-	-
Aquaculture industry and regional development	154	141	13	-	-	-
Other	448	448	-	598	598	-
Total State grants	2 360	1 218	1 142	998	998	-
Industry grants²						
Fisheries RDC	943	943	-	332	332	-
Fisheries RDC Pro-active Grant	101	101	-	296	234	62
Grains RDC	5 809	5 238	571	2 990	2 970	20
Horticultural RDC	1 183	1 022	161	900	628	272
Pig RDC	681	600	81	263	263	-
Rural Industries RDC	285	227	58	225	132	93
Meat RDC	246	207	39	-	-	-
Dried Fruits RDC	71	71	-	70	70	-
International Wool Secretariat	281	281	-	132	84	48
SA Grains Industry Trust Fund	711	624	87	266	244	22
Co-operative RDC	239	235	4	195	53	142
Grape and Wine RDC	137	118	19	-	-	-
Other	1 704	1 527	177	1 094	903	191
Total industry grants	12 391	11 194	1 197	6 763	5 913	850
Total grants received	29 930	23 361	6 569	19 409	14 291	5 118

1 These activities are a component of the Natural Heritage Trust.

2 RDC — Research and Development Corporation.

12. Interest revenue

	1998-99 \$'000	1997-98 \$'000
Loans to the rural sector	4 213	4 063
Deposits lodged with Treasury	3 042	2 234
	7 255	6 297

13. Sales of goods and services

	1998-99 \$'000	1997-98 \$'000
Plants	1 225	466
Livestock	485	438
Publications, books and maps	553	577
Milk	425	237
Soil test kits	188	146
Fruit and vegetables	245	131
Cereals	234	112
Wool and skins	213	97
Other	264	1 083
	3 832	3 287

14. Royalties

The following royalties were received and deposited into the Consolidated Account (refer Note 2(e)):

	1998-99 \$'000	1997-98 \$'000
Licences		
Gas licences	7 851	10 321
	7 851	10 321
Based on production		
Natural gas/liquids	41 214	41 679
Minerals	15 991	15 280
Coal	1 476	1 787
	58 681	58 746
Total royalties	66 532	69 067

15. Other revenue

	1998-99 \$'000	1997-98 \$'000
South-Eastern Water Conservation Drainage Board	1 067	936
Seed royalties	290	-
Rent and lease	181	432
Workers compensation recoveries	70	-
Government Employment Scheme recoups	191	169
Project research services and supply of data	398	-
National quality evaluation for Australian pulses	247	-
Information services	116	-
National Registration Authority	52	-
National Land and Water Authority	73	-
National residues survey	54	-
Other	1 496	2 218
	4 235	3 755

16. Current asset – receivables

	1998-99 \$'000	1997-98 \$'000
Trade accounts receivable	3 208	2 782
Less: provision for doubtful debts	242	156
	2 966	2 626
Accrued interest on loans and deposits	1 561	2 089
	4 527	4 715

17. Inventories

	1998-99 \$'000	1997-98 \$'000
Current		
Livestock (net realisable value)	1 152	1 135
Plants and related items (at cost)	559	496
Finished goods (at cost)	59	195
Raw materials and stores (at cost)	117	129
Other (at cost)	116	161
	2 003	2 116
Non-current		
Publications and maps (net realisable value)	125	107

18. Loans

	1998-99		1997-98	
	\$'000	\$'000	\$'000	\$'000
(i) Rural sector – Rural Finance and Development				
Balance at 1 July		53 107		71 086
Advances during the year	324		954	
Interest capitalised	4 744		5 554	
		<u>5 068</u>		<u>6 508</u>
		58 175		77 594
Less: principal repayments	18 082		24 411	
loans converted to grants	-		8	
principal written off	66		68	
		<u>18 148</u>		<u>24 487</u>
Balance 30 June		<u>40 027</u>		<u>53 107</u>
Other loans				
Balance 1 July		96		112
Less: amortisation of loan		16		16
Balance 30 June		<u>80</u>		<u>96</u>
Total loan balance 30 June		<u>40 107</u>		<u>53 203</u>
(ii) Balance of loans outstanding comprises				
Principal not yet due for repayment		39 745		52 209
Principal due but not yet paid		362		994
Total principal outstanding		<u>40 107</u>		<u>53 203</u>
(iii) Balance of loans classification				
Current assets		<u>2 010</u>		<u>2 777</u>
Non-current assets		38 097		50 426
Less: provision for doubtful debts		2 649		2 654
		<u>35 448</u>		<u>47 772</u>
		<u>37 458</u>		<u>50 549</u>

19. Property, plant and equipment

	1998-99	1997-98
	\$'000	\$'000
Land		
Land at independent valuation (30 June 1999)	9 789	12 835
Land at cost	1 009	120
	<u>10 798</u>	<u>12 955</u>
Buildings and improvements		
Buildings at independent valuation (30 June 1999)	93 059	87 406
Buildings at cost	2 211	546
Leasehold improvement	3 607	-
	<u>98 877</u>	<u>87 952</u>
Less: accumulated depreciation and amortisation	26 362	21 286
	<u>72 515</u>	<u>66 666</u>
Plant and equipment		
Plant and equipment at cost	55 343	52 279
Less: accumulated depreciation	36 124	34 658
	<u>19 219</u>	<u>17 621</u>
Total property, plant and equipment	<u>102 532</u>	<u>97 242</u>

20. Other assets

	1998-99	1997-98
	\$'000	\$'000
Current		
Amdel loan	16	16
Workers compensation recoveries	35	-
	<u>51</u>	<u>16</u>

	1998–99 \$'000	1997–98 \$'000
Non-current		
Workers compensation recoveries	35	–

21. Current liabilities — creditors and accruals

	1998–99 \$'000	1997–98 \$'000
Employee related	927	873
Creditors and accruals	3 088	4 955
Workers compensation	497	441
Commonwealth excise funding	13	47
	4 525	6 316

22. Borrowings

	1998–99 \$'000	1997–98 \$'000
(i) Indebtedness to SA Department of Treasury and Finance	5 782	34 060
Indebtedness to SA Financing Authority	26 188	4 866
Indebtedness to Department of Industry and Trade	114	125
Total borrowings	32 084	39 051
(ii) Balance of borrowings outstanding classifications		
Current	1 280	995
Non-current	30 804	38 056
	32 084	39 051

23. Provision for employee entitlements

	1998–99 \$'000	1997–98 \$'000
Current		
Accrued salaries and wages	1 906	1 749
Annual leave	3 603	3 070
Long service leave	400	1 121
Other	–	143
	5 909	6 083
Non-current		
Other	–	265
Long service leave	15 254	13 233
	15 254	13 498

24. Non-current liabilities — creditors and accruals

	1998–99 \$'000	1997–98 \$'000
Employee related	1 755	1 343
Workers compensation	1 055	1 035
	2 810	2 378

25. General Reserve

The General Reserve for PIRSA Rural Finance and Development was previously established to cover unforeseen losses which may arise from the loan portfolio. The need to maintain this General Reserve will be reviewed in 1999–2000.

26. Committed Grants Reserve

The Committed Grants Reserve for PIRSA Rural Finance and Development was established to provide for grant commitments which at 30 June 1999 were committed but not advanced.

27. Commitments for expenditure

	1998-99 \$'000	1997-98 \$'000
Operating leases		
Commitments under non-cancellable operating leases at the reporting date are payable as follows:		
Not later than one year	3 715	2 513
Later than one year and not later than two years	1 869	2 535
Later than two years and not later than five years	5 101	4 346
Later than five years	6 878	7 243
	17 563	16 637

28. Targeted voluntary separation packages

In accordance with government policy to reduce the public sector workforce, 12 employees of the agency were paid targeted voluntary separation packages (TVSPs) during the period.

These payments were met by the agency and have been recovered from the Department of the Premier and Cabinet.

At 30 June 1999 payments amounted to \$705 000 and \$705 000 has been recovered. In addition to this, \$323 000 was paid in accrued annual leave and long service leave entitlements to those employees who received a TVSP.

29. Consultants costs

During the reporting period the agency incurred expenses of \$2.3 million on consultants (1997-98: \$2.3 million).

30. Trust funds

PIRSA administers but does not control the following trust funds:

Pleuro Pneumonia Fund. This fund consists of monies belonging to all State Governments and the Federal Government. The Fund is controlled by the Standing Committee of Agriculture and all expenditure is subject to the approval of the Chairman. Funds are to be used principally for publication of the history of the Pleuro Pneumonia Eradication Campaign and are held in a Section 21 Deposit Account.

Unclaimed Salaries Fund. This fund is used to retain unclaimed monies for which no claim has been made against PIRSA by the owner. Monies are retained for six years by PIRSA and then transferred to the Department of Treasury and Finance.

Extractive Areas Rehabilitation Fund. This fund is credited amounts by way of royalty on extractive minerals and is used for the rehabilitation of land disturbed by mining operations. The funds collected are used to limit damage to any aspect of the environment by such mining operations, in addition to the promotion of research into methods of mining engineering and practice by which environmental damage might be reduced.

Fisheries Research and Development Corporation Pro-active Grant Fund. This fund consists of monies belonging to the Fisheries Research and Development Corporation (FRDC) which were distributed to the South Australian Government in 1992. The fund is controlled by the FRDC with all project expenditure subject to its written approval. The monies, which are held in an interest bearing Section 21 Deposit Account, are used to promote collaboration between the fishing industry, fisheries managers, researchers and other stakeholders through the South Australian Fisheries Research Advisory Body.

Aggregate details of the transactions and balances relating to these Trust Funds for the year ended 30 June 1999 are as follows:

	Pleuro Pneumonia Fund \$'000	Unclaimed Salaries Fund \$'000	Extractive Areas Rehabilitation Fund \$'000	FRDC Pro-active Grant Fund \$'000	1999 total \$'000	1998 total \$'000
Operations						
Receipts	5	-	887	8	900	1 045
Less: expenditure	2	-	885	133	1 020	1 114
Excess of receipts (expenditure)	3	-	2	(125)	(120)	(69)

	Pleuro Pneumonia Fund	Unclaimed Salaries Fund	Extractive Areas Rehabilitation Fund	FRDC Pro-active Grant Fund	1999 total	1998 total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Funds						
Balance of funds 1 July	103	1	5 146	208	5 458	5 527
Add: surplus (deficit) for year	3	–	2	(125)	(120)	(69)
Fund balance at 30 June	106	1	5 148	83	5 338	5 458
Less: commitments	–	–	1 378	–	1 378	1 378
Balance of funds available	106	1	3 770	83	3 960	4 080

As the agency performs only a custodial role in respect of these monies and because the monies cannot be used for the achievement of PIRSA's objectives, they are not brought to account in the financial statements, but are shown here for information purposes.

31. Employee remuneration packages

The number of employees whose total remuneration package was \$100 000 or more in relation to the reporting period was as follows:

Remuneration level	Number of employees	
	1998–99	1997–98
\$100 000 – 109 999	5	4
\$110 000 – 119 999	4 ¹	5
\$120 000 – 129 999	2 ²	–
\$130 000 – 139 999	2	2
\$140 000 – 149 999	2 ²	1
\$150 000 – 159 999	1	–
\$170 000 – 179 999	1 ²	1
\$210 000 – 219 999	1	1

1 Includes separation packages paid to two persons in this band.

2 Includes separation packages paid to one person in each of these bands.

Total remuneration received by the above employees was \$2.2 million (1997–98: \$1.8 million).

32. Audit fees

These accounts include \$217 000 (1997–98: \$164 800) in audit fees paid to the Auditor-General's Department during the period.

33. (i) Cash

	1998–99 \$'000	1997–98 \$'000
Cash at the end of the financial year as shown in the 'Statement of cash flows' is reconciled to the related items in the 'Statement of financial position' as follows:		
Cash	76 370	62 901
Deposits at call	3 536	–
	79 906	62 901

(ii) Reconciliation of net cost of services to net cash provided by operating activities

	1998–99 \$'000	1997–98 \$'000
Net cost of services	(95 571)	(60 671)
Cash flows from Government	104 229	56 224
Depreciation and amortisation	4 905	3 963
Increase (decrease) in provision for doubtful debts	147	(1 607)
Increase in provision for employee entitlements	1 582	1 050
Loss on sale of property, plant and equipment	1 001	456
Increase in receivables	(425)	(1 257)
Increase in workers compensation recoveries	(70)	–
Decrease in inventories	95	170

	1998-99 \$'000	1997-98 \$'000
Decrease in prepaid expenses	-	226
Decrease in accrued interest receivable	528	1 618
Prior period adjustments	2 179	-
SA Financing Authority borrowings — Loans converted to grants	-	(8)
— Grants converted to loans	-	25
SA Financing Authority capital loss	29	3 185
Loss on revaluation of Borehole Network	263	-
Decrease in accrued interest payable on loans	(217)	(569)
Loans converted to grants	-	8
(Decrease) increase in creditors and accruals	(1 359)	3 778
Decrease in unearned revenue	(77)	(1 038)
Net cash provided by operating activities	17 239	5 553

34. Additional financial instruments disclosure

(a) Interest rate risk

PIRSA's exposure to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in market interest rates and the effective weighted average interest rate on those financial assets and financial liabilities, is as follows:

	Floating interest rate \$'000	1 year or less \$'000	Over 1 to 5 years \$'000	More than 5 years \$'000	Non- interest bearing \$'000	Total \$'000
1998-99						
Financial assets						
Cash	79 906	-	-	-	-	79 906
Receivables	-	-	-	-	4 527	4 527
Loans to rural sector	-	13 986	17 443	8 598	-	40 027
Loans other	-	-	-	-	80	80
Total	79 906	13 986	17 443	8 598	4 607	124 540
Weighted average interest rate	4.88%	7.99%	8.65%	8.74%	-	-
Financial liabilities						
Borrowings Rural Finance and Development	-	13 915	13 673	2 563	-	30 151
Borrowings Office of Energy Policy	1 841	-	-	-	-	1 841
Borrowings other	-	-	-	-	92	92
Payables	-	-	-	-	3 088	3 088
Total	1 841	13 915	13 673	2 563	3 180	35 172
Weighted average interest rate	8.83%	6.16%	6.53%	8.00%	-	-
1997-98						
Financial assets	62 901	17 826	19 972	15 309	4 811	120 819
Weighted average interest rate	5.22%	8.5%	9.29%	9.56%	-	-
Financial liabilities	2 081	17 682	15 465	3 731	5 047	44 006
Weighted average interest rate	9.50%	6.70%	7.01%	7.85%	-	-

(b) Net fair value

The carrying amounts of financial assets and liabilities at the reporting date all approximate their net fair values.

(c) Credit risk

The maximum exposure to credit risk, excluding the value of any collateral or other security, at balance date to recognised financial assets is the carrying amount, net of any provisions for doubtful debts, as disclosed in the balance sheet and notes to the financial statements.

35. Contingent liabilities

The Government through PIRSA assumes a role of addressing the environmental liabilities of past mining activities where there is no longer an active licence. For new activities, it is a lease condition that rehabilitation be undertaken by the leaseholder before a lease is surrendered. PIRSA's responsibility is to ensure that a lease is not surrendered before appropriate rehabilitation has occurred, thus minimising the likelihood of future environmental risks to Government. Work is progressing to determine any liabilities that may be associated with this role. At this time, the financial impact cannot be reliably estimated.

Since mining ceased at Brukunga in 1972, the residual sulphides in the quarry, two waste rock dumps and tailings storage have been actively oxidising and generating acid water via natural process. SA Water has operated a neutralisation plant at the site to minimise the environmental impact. In February 1998 PIRSA assumed responsibility for the Brukunga mine site from SA Water Corporation. The consequences of this will be the transfer of a significant environmental risk from SA Water Corporation to PIRSA. The ongoing cost to operate the water treatment plant is in the order of \$750 000 per annum. The value of the property will be brought to account by PIRSA when ownership formally transfers in 1999–2000.

36. Equity

Equity represents the residual interest in PIRSA's net assets. The South Australian Government holds the equity interest in PIRSA on behalf of the community.

	Accumulated Surplus	Committed Grants Reserve	General Reserve	Asset Revaluation Reserve	Total
	\$'000	\$'000	\$'000	\$'000	\$'000
Balance at 1 July 1998	143 871	3 512	2 000	–	149 383
Change in net assets resulting from operations	8 658	–	–	–	8 658
Transfers to (from) Reserves	1 822	(1 822)	–	3 764	3 764
Balance at 30 June 1999	154 351	1 690	2 000	3 764	161 805

37. Year 2000 reporting

PIRSA is investigating to what extent the date change from 1999 to 2000 may affect its business. The agency has established a program to ensure that the impact of the change on its operations is minimised.

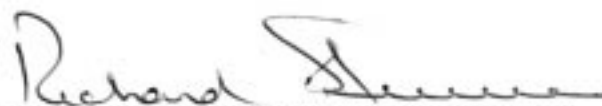
PIRSA's program of Year 2000 readiness has involved the establishment of a project team in early 1998 to determine the potential impacts of the Year 2000 'Millennium Bug' on the organisation. A Project Board was established and a project manager was appointed who reports to the Board on a monthly basis. The program of Year 2000 readiness has involved the phases of inventory, assessment, compliance, correction and testing. Regular reporting is provided to the PIRSA Executive and monthly progress reports are provided to the South Australian Government Office of Year 2000 Compliance with regard to meeting certain Cabinet approved timeframes.

While PIRSA does not provide critical services to the community, the organisation has identified and tested a number of systems which are important to the ongoing business of the organisation. Most of these systems have, where necessary, been upgraded or replaced. The remainder are awaiting user testing or delivery of upgraded versions. A contingency planning process has commenced and will be completed at the end of September 1999 in accordance with government guidelines. Some Year 2000 risk is also present in reliance on third parties dealing with PIRSA.

The Year 2000 Project Board is satisfied with the progress of the project and that the Year 2000 will have minimal impact on this organisation, however there can be no absolute assurance that the Year 2000 readiness program will be completely successful.

Declaration

The accompanying financial statements and notes present fairly the financial position, results of operations and cash flows in accordance with Statements of Accounting Concepts and Australian Accounting Standards. Internal controls over financial reporting have been effective throughout the reporting period.



Richard Stevens
Acting Chief Executive



Ian Hartmann
Manager, Corporate Finance



Ian Carrapiett
Accountant, Financial Reporting



Auditor-General's Department

INDEPENDENT AUDIT REPORT

TO THE CHIEF EXECUTIVE
DEPARTMENT OF PRIMARY INDUSTRIES AND RESOURCES

SCOPE

As required by section 31 of the *Public Finance and Audit Act 1987*, I have audited the financial report of the Department of Primary Industries and Resources for the year ended 30 June 1999. The financial report comprises:

- An Operating Statement;
- A Statement of Financial Position;
- A Statement of Cash Flows;
- A Schedule of Administered Expenses and Revenues;
- A Schedule of Administered Assets and Liabilities;
- An Outputs Schedule of Departmental Expenses and Revenues;
- Notes to and forming part of the Financial Statements;
- Certificate by the Acting Chief Executive of the Department of Primary Industries and Resources, the Manager, Corporate Finance and the Accountant, Financial Reporting.

The Acting Chief Executive of the Department of Primary Industries and Resources, the Manager, Corporate Finance and the Accountant, Financial Reporting are responsible for the financial report. I have conducted an independent audit of the financial report in order to express an opinion on it to the Chief Executive.

The audit has been conducted in accordance with the requirements of the *Public Finance and Audit Act 1987* and Australian Auditing Standards to provide reasonable assurance that the financial report is free of material misstatement.

Audit procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial report, and the evaluation of accounting policies and significant accounting estimates. These procedures were undertaken to form an opinion whether, in all material respects, the financial report is presented fairly in accordance with Treasurer's Instructions promulgated under the provisions of the *Public Finance and Audit Act 1987*, Australian Accounting Standards and other mandatory professional reporting requirements (Urgent Issues Group Consensus Views) so as to present a view which is consistent with my understanding of the Department of Primary Industries and Resources' financial position, the results of its operations and its cash flows.

The audit opinion expressed in this report has been formed on the above basis.

AUDIT OPINION

In my opinion the financial report presents fairly in accordance with the Treasurer's Instructions promulgated under the provisions of the *Public Finance and Audit Act 1987*, applicable Australian Accounting Standards and other mandatory professional reporting requirements, the financial position of the Department of Primary Industries and Resources as at 30 June 1999, the results of its operations and its cash flows for the year then ended.

EMPHASIS OF MATTER

Note 37 to the financial statements describes the progress in respect of ensuring that significant/core computer hardware, software and/or systems are Year 2000 compliant.

As explained in the note, while the Department of Primary Industries and Resources is taking action to mitigate its risks in relation to the date change from 1999 to 2000, there can be and is no audit assurance that the date changeover will not affect its ongoing operations, including financial results.

24 September 1999

K I MacPHERSON
AUDITOR-GENERAL

Rural Industry Adjustment and Development Fund

Operating statement for the year ending 30 June 1999

	Note	1998-99 \$'000	1997-98 \$'000
INCOME			
Interest	2	1 228	1 342
Other		127	1
Total income		1 355	1 343
EXPENDITURE			
Grants			
Young Farmers Scheme	3	666	1 329
Project funding	4	1 111	1 238
		1 777	
Provision for doubtful debts	5	628	(809)
Administration		73	132
Total expenditure		2 478	1 890
OPERATING DEFICIT BEFORE ABNORMAL ITEMS		(1 123)	(547)
ABNORMAL ITEMS		-	-
OPERATING DEFICIT AFTER ABNORMAL ITEMS		(1 123)	(547)
RETAINED SURPLUS BROUGHT FORWARD		17 980	15 716
TRANSFER (TO) FROM COMMITTED GRANTS RESERVE	6	589	1 411
TRANSFER OF RURAL INDUSTRY ADJUSTMENT SURPLUSES	7		1 400
TOTAL AVAILABLE FOR APPROPRIATION		17 446	17 980
RETAINED SURPLUS CARRIED FORWARD		17 446	17 980

Statement of financial position for the year ending 30 June 1999

	Note	1998-99		1997-98
		\$'000	\$'000	\$'000
FUNDS EMPLOYED				
General reserve			2 000	2 000
Committed grants reserve	6		1 117	1 706
Retained surplus			17 446	17 980
TOTAL FUNDS EMPLOYED			20 563	21 686
ASSETS				
Current assets				
Deposits lodged with Treasurer			15 738	15 790
Loans to rural sector	9	318		351
Less: provision for doubtful debts	5	53	265	17
				334
Accrued interest on	10			
Loans		303		336
Deposits lodged with Treasurer		44	347	45
Total current assets			16 350	16 505
Non-current assets				
Loans to rural sector	9	5 207		5 600
Less: provision for doubtful debts	5	872	4 335	280
Total non-current assets			4 335	5 320
Total assets			20 685	21 825
LIABILITIES				
Current liabilities				
Provisions and accruals	8		1	4
Total current liabilities			1	4
Non-current liabilities				
Borrowings			114	125
Provisions	8		7	10
Total non-current liabilities			121	135
Total liabilities			122	139
NET ASSETS			20 563	21 686

Statement of cash flows for the year ending 30 June 1999

	Note	1998-99 Inflows (Outflows) \$'000	1997-98 Inflows (Outflows) \$'000
CASH FLOWS FROM OPERATING ACTIVITIES			
Interest received on loans to the rural sector		486	1 100
Interest received on deposits lodged with Treasurer		776	648
Grants			
Project funding		(1 111)	(1 238)
Young Farmers Scheme		(666)	(1 329)
Administration expenses paid		(79)	(120)
Other		127	1
Net cash used in operating activities	11	(467)	(938)
CASH FLOWS FROM INVESTING ACTIVITIES			
Loans advanced to rural sector		(251)	(490)
Loans repaid by rural sector		677	5 602
Net cash used in investing activities		426	5 112
CASH FLOWS FROM FINANCING ACTIVITIES			
Borrowings from Treasury		-	125
Principal repayments		(11)	-
Net cash used in financing activities		(11)	125
NET INCREASE (DECREASE) IN CASH HELD		(52)	4 299
CASH AT 1 JULY		15 790	10 091
TRANSFER OF RURAL INDUSTRY ADJUSTMENT SURPLUSES		-	1 400
CASH AT 30 JUNE		15 738	15 790

Notes to and forming part of the financial statements

1. Statement of accounting policies

The Rural Industry Adjustment and Development Fund is established under the *Rural Industry Adjustment and Development Act 1985*. The primary purpose of the fund is to provide loans and grants, at Ministerial discretion, to develop a farm, make adjustments to farming methods or to undertake a project or research for the benefit of farmers.

The 'Financial statements' are in accordance with Statements of Accounting Concepts, applicable Australian accounting standards and with Treasurer's instructions issued pursuant to the Public Finance and Audit Act. The statements have been prepared in accordance with the historical cost convention using the accrual method of accounting.

Rural Industry Adjustment and Development Fund

Section 5(1) of the Rural Industry Adjustment and Development Act requires that a fund, entitled the Rural Industry Adjustment and Development Fund, be established and maintained at Treasury.

Long service leave and annual leave

The provisions represent all outstanding liabilities for annual leave due but not yet paid and long service leave for employees with eight or more years of service at 30 June 1999.

Provision for doubtful debts

A provision is raised for any doubtful debts on a review of all outstanding amounts at year end. This is calculated at 5 per cent of the total loans to the rural sector. The balance of the loans outstanding has been adjusted for the specific provision on the loans to Kangaroo Island Abattoirs.

2. Interest comprises interest received on

	1998-99 \$'000	1997-98 \$'000
Loans to the rural sector	430	682
Deposits lodged with the Treasurer	798	660
	1 228	1 342

3. Young Farmers Scheme

The scheme has been set up to encourage farmers 30 years of age or under, to either stay on the land or have the opportunity to purchase, lease or sharefarm land, thus starting a career on the land. Support under this scheme is by way of Interest Rate Subsidy to either assist with rural land purchase or assist with leasing rural land/share farming.

4. Project funding comprises payments for the following activities

	1998-99 \$'000	1997-98 \$'000
Primary industries — marketing and development	500	500
Industry Development Board for Wool	190	-
Industry Development Board for Wool	97	-
Kaholi olive research and development	101	85
Primary industries — Rural Counselling Trust Fund	-	250
Virginia Horticulture Centre	-	50
Riverland Highland Irrigation Development	-	75
Other	223	278
	1 111	1 238

5. Provision for doubtful debts

Movements in the provision for doubtful debts during the year were:

	1998-99 \$'000
Balance 1 July	297
Less: write-offs during year	-
	297
Add: amount provided in year	628
Balance 30 June	925

6. Transfer to Committed Grants Reserve

The Committed Grants Reserve was established to provide for grant commitments which at 30 June 1999 had not been advanced.

7. Transfer of Rural Industry Adjustment surpluses

Pursuant to section 6 of the Rural Industry Adjustment and Development Act, identified surpluses totalling \$1.4 million from the Rural Industry Assistance Fund and the Rural Industry Adjustment Fund were transferred into the Rural Industry Adjustment and Development Fund during 1997–98.

8. Provisions

	1998–99 \$'000	1997–98 \$'000
Employee entitlements — current	1	4
Employee entitlements — non-current	7	10
	8	14

9. Loans to rural sector

	1998–99 \$'000	1997–98 \$'000
Balance 1 July	5 951	11 063
Add: advances during year	251	490
interest capitalised	486	1 100
	6 688	12 653
Less: principal repayments	1 163	
principal written off	—	—
	1 163	6 702
Balance 30 June	5 525	5 951
Current	318	351
Less provision for doubtful debts	53	17
Net current	265	334
Non-current	5 207	5 600
Less provision for doubtful debts	872	280
Net non-current	4 335	5 320

10. Accrued interest


Represents interest accrued to 30 June 1999 but not receivable until 1999–2000.

11. Reconciliation of operating deficit to net cash used in operating activities

	1998–99 \$'000	1997–98 \$'000
Operating deficit	(1 123)	(547)
Decrease in accrued interest receivable on loans	33	418
Decrease in accrued interest receivable on deposits with Treasurer	1	(12)
Provision for doubtful debts	628	(809)
Decrease in provisions	(6)	12
Net cash used in operating activities	(467)	(938)

Declaration

The accompanying financial statements and notes present fairly the financial position, results of operations and cash flows in accordance with Statements of Accounting Concepts and Australian Accounting Standards.



.....

Dennis Mutton
Chief Executive



.....

Geoff Knight
Director, Finance & Strategic Planning



.....

Maria Aloisi
Finance Officer



Auditor-General's Department

INDEPENDENT AUDIT REPORT

TO THE CHIEF EXECUTIVE DEPARTMENT OF PRIMARY INDUSTRIES AND RESOURCES

SCOPE

As required by section 31 of the *Public Finance and Audit Act 1987*, and section 14 of the *Rural Industry Adjustment and Development Act 1985*, I have audited the financial report of the Department of Primary Industries and Resources - Rural Industry Adjustment and Development Fund for the year ended 30 June 1999. The financial report comprises:

- An Operating Statement;
- A Statement of Financial Position;
- A Statement of Cash Flows;
- Notes to and forming part of the Financial Statements;
- Certificate by the Chief Executive of the Department of Primary Industries and Resources, the Director, Finance & Strategic Planning and the Finance Officer.

The Chief Executive of the Department of Primary Industries and Resources, the Director, Finance & Strategic Planning and the Finance Officer are responsible for the financial report. I have conducted an independent audit of the financial report in order to express an opinion on it to the Chief Executive.

The audit has been conducted in accordance with the requirements of the *Public Finance and Audit Act 1987* and Australian Auditing Standards to provide reasonable assurance that the financial report is free of material misstatement.

Audit procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial report, and the evaluation of accounting policies and significant accounting estimates. These procedures were undertaken to form an opinion whether, in all material respects, the financial report is presented fairly in accordance with Treasurer's Instructions promulgated under the provisions of the *Public Finance and Audit Act 1987*, Australian Accounting Standards and other mandatory professional reporting requirements (Urgent Issues Group Consensus Views) so as to present a view which is consistent with my understanding of the Department of Primary Industries and Resources - Rural Industry Adjustment and Development Fund's financial position, the results of its operations and its cash flows.

The audit opinion expressed in this report has been formed on the above basis.

AUDIT OPINION

In my opinion the financial report presents fairly in accordance with the Treasurer's Instructions promulgated under the provisions of the *Public Finance and Audit Act 1987*, applicable Australian Accounting Standards and other mandatory professional reporting requirements, the financial position of the Department of Primary Industries and Resources - Rural Industry Adjustment and Development Fund as at 30 June 1999, the results of its operations and its cash flows for the year then ended.

15 October 1999


S O'NEILL
DEPUTY AUDITOR-GENERAL

11 ABBREVIATIONS

AAA	Agriculture — Advancing Australia	SAIIR	South Australian Independent Industry Regulator
AAPG	American Association of Petroleum Geologists	SARDI	South Australian Research and Development Institute
ABA	Advisory Board of Agriculture	SASE	South Australian Steel and Energy
AGSO	Australian Geological Survey Organisation	SCARM	Standing Committee on Agriculture and Resource Management
ANZMEC	Australian and New Zealand Minerals and Energy Council	SENRAC	State Energy Research Advisory Committee
APPEA	Australian Petroleum Production and Exploration Association Ltd	TEISA	Targeted Exploration Initiative South Australia
ARMCANZ	Agricultural and Resource Management Council of Australia and New Zealand		
ASEG	Australian Society of Exploration Geophysicists		
ASR	aquifer storage and recovery		
BHEI	Broken Hill Exploration Initiative		
BJD	bovine Johne's disease		
CSIRO	Commonwealth Scientific and Industrial Research Organisation		
EARF	Extractive Areas Rehabilitation Fund		
EIC	Energy Information Centre		
EMTF	Energy Management Task Force		
FRDC	Fisheries Research and Development Corporation		
GRDC	Grain Research and Development Corporation		
HACCP	hazard analysis critical control point		
ISO	International Organisation for Standardisation		
MHU	Meat Hygiene Unit		
MSA	Meat Standards Australia		
MTA	Motor Trade Association		
NGSA	Natural Gas Authority of South Australia		
NHT	Natural Heritage Trust		
OHSW	occupational health, safety and welfare		
OJD	ovine Johne's disease		
PEL	petroleum exploration licence		
PESA	Petroleum Exploration Society of Australia		
PIRSA	Primary Industries and Resources South Australia		
RAS	Rural Adjustment Scheme		
RDC	Research and Development Corporation.		

INDEX

This index includes entries for all statutory requirements, PIRSA outputs and groups. Other items are only indexed where they are a significant feature. Bold page numbers indicate principal references.

absenteeism **50**

accommodation **50, 52**

account payment performance **59**

administered items **55**

agency support **5, 47–52**

Agricultural Industries Group **4, 10–17, 61**

aquaculture *see* Fisheries and Aquaculture Group

audit reports **88, 95**

awards (PIRSA)

Australian Water and Waste Water Association

Environment Merit Award **3, 4, 25**

Government Technology Productivity Awards (SA Food Online) **5, 44**

South Australian Nursery and Landscape Industry Association, Award of Merit (Ann Frodsham) **28**

Unsung Hero of South Australia (John Mignone) **49**

BHEI **30–31**

boards **55** *see also* individual entries e.g. Industry Development Boards

Broken Hill Exploration Initiative *see* BHEI

business (corporate) *inside front cover*

Centre for Minerals and Petroleum **47–48**

committees **55** *see also* individual entries e.g. Fishery Management Committees

consultancies (engaged by PIRSA) **58–59**

contractual arrangements **59**

Cooper Basin **3, 5, 6, 29, 35, 36, 37, 38, 39**

Corporate Services Group **47, 53**

employees *see* workforce statistics

energy *see* Office of Energy Policy **5, 40–43**

enterprise bargaining **51**

equal employment opportunities **51**

Executive employment *see* workforce statistics

Extractive Areas Rehabilitation Fund **32**

FarmBis **5, 7, 17, 49**

Farmed Seafood Initiative **2, 6**

finance **51**

Finance and Strategic Planning Group **47, 53**

financial statements

PIRSA **66–88**

Rural Industry Adjustment and Development Fund **89–95**

Fisheries and Aquaculture Group **4, 18–20, 61**

Fisheries Research and Development Fund **55**

Fishery Management Committees **19, 55**

Food for the Future **3, 5, 7, 44**

fraud **51–52**

Freedom of Information Statement **67**

functions *see* business and vision

Government Management Framework **10, 47, 50, 51**

groundwater *see* Sustainable Resources Group

HOFEX '99 Market Awareness Mission **5, 15, 45, 61, 64**

human resources **50–51**

Human Resources Group **47, 53**

Industry Development Group **5, 44–45, 64**

Industry Development Boards **2, 26, 44**

Field Crops **6**

Horticulture **14**

Meat **6, 14**

Wool **15, 17**

Information Management Group **47, 53**

information technology **52, 60**

leave management **50**

Legal Unit **50**

legislation **54–55** *see also* output 3.2

Mineral Resources Group **4–5, 29–34, 64**

Ministerial responsibilities **54–55**

National Competition Policy *see* output 3.2

Natural Gas Authority of South Australia **40, 42**

native title **32, 33, 34, 36, 37, 39**

Natural Heritage Trust *see* NHT

NHT **4, 7, 16, 25, 26, 27, 28**

objectives *see* outcomes

occupational health, safety and welfare **51, 57**

Office of Energy Policy **5, 40–43**

Office of Regional Development **3, 46, 53**

office relocation *see* accommodation

operations and initiatives *see* performance review

organisation **53**

relationship to Minister's other agencies **55**

see also restructuring

outcomes (corporate) *inside front cover, 8, 9*

outputs **8–9**

1.1: data and information products and services **10–11, 18, 21–22, 25, 29, 35–36, 40, 44, 46, 47–48**

1.2: research and scientific services **11–12, 18, 22–24, 25–26, 29–31, 36**

2.1: resource regulation services **12, 18, 26, 31–32, 36–37, 40–41**

2.2: licensing services **12–13, 18–19, 32, 37, 41**

2.3: compliance services **13, 19, 32–33, 37–38, 41**

2.4: incident response services **13–14, 19, 38–39, 41, 48**

3.1: policy advice and support services **14–15, 19, 24, 26–27, 33, 39, 41–42, 44, 46, 48–49**

3.2: legislation development and review services **15, 19, 27, 33–34, 39, 42, 49**

3.3: portfolio program management services **19–20, 27, 42, 49**

3.4: infrastructure project services **27, 34**

4.1: facilitation planning services **15, 24, 28, 34, 39, 42–43, 44–45, 46**

4.2: trade and market services **15–16, 20, 28, 39, 45**

4.3: training and education services **16–17, 20, 28, 46, 49–50**

overseas travel **61–64**

Petroleum Group 5, **35–39**, 64
 PIRSA Rural Solutions 2, 10, 11
 policy and strategic development 47, **50**
 public relations and communications 47, **52**
 purchasing **51**

Regional Development Task Force 3, **46**
 research and development 2
 SARDI 4, **21–24**, 61–63
 Resources Week 4, **29**, 47
 Resources Task Force 2, **44**, 45
 restructuring **53**
 risk management **51–52**
 Rural Adjustment Scheme **49**, **89–95**
 rural communities
 South Australian Rural Communities Office 3, 5, **46**, 53, 64
 see also PIRSA Rural Solutions
 rural finance and development 47, **49**
 Ruralink 3, 7, **46**

SA Food Online 5, **44**
 SA_GEOLOGY 30
 SARDI 4, **21–24**, 61–63
 SASE *see* South Australian Steel and Energy Project
 sick leave *see* absenteeism
 skill development **50**
 Soil Conservation Boards 27, 28, 55
 South Australian Rural Communities Office 3, 5, **46**, 53, 64
 South Australian Steel and Energy Project 2, 5, **34**
 strategic planning **50**
 links to government objectives **9**
 Sustainable Resources Group 4, **25–28**, 64

Targeted Exploration Initiative South Australia
 see TEISA
 TEISA 2, 4, 6, **29**, **30**, 31, 34, **35**, **36**, 49
 training *see* skill development
 trusts **55**

values *inside front cover*
 vision *inside front cover*

Women's Development Group 3, **50–51**
 WorkCover 5, **51**
 workforce statistics 50, **56–57**

Year 2000 compliance 52, **60**

PIRSA CONTACTS

Primary Industries and Resources South Australia
 17th floor, Grenfell Centre
 25 Grenfell St, Adelaide
 GPO Box 1671, Adelaide SA 5001
 DX 667
 Phone (08) 8226 0222
 Fax (08) 8226 0476
 Web site <http://www.pir.sa.gov.au>

PIRSA has over 50 offices distributed across the State and Adelaide metropolitan area and these are listed in the Adelaide and various country White Pages.

INQUIRY	CONTACT	PHONE, FAX AND LOCATION
Deputy Premier and Minister for Primary Industries, Natural Resources and Regional Development	Rob Kerin MP	phone (08) 8226 0023 fax (08) 8226 0316 17th floor, Grenfell Centre, 25 Grenfell Street, Adelaide
Chief Executive	Dennis Mutton	phone (08) 8226 0168 fax (08) 8226 0320 17th floor, Grenfell Centre, 25 Grenfell Street, Adelaide
Deputy Chief Executive	Richard Stevens	phone (08) 8226 0350 fax (08) 8226 0320 17th floor, Grenfell Centre, 25 Grenfell Street, Adelaide
Agricultural Industries	Barry Windle Director	phone (08) 8226 0310 fax (08) 8463 3363 9th floor, 101 Grenfell Street, Adelaide
Fisheries–Aquaculture	Gary Morgan Director	phone (08) 8226 2316 fax (08) 8226 0434 16th floor, Grenfell Centre, 25 Grenfell Street, Adelaide
South Australian Research and Development Institute	Rob Lewis Executive Director	phone (08) 8303 9401 fax (08) 8303 9403 Plant Research Centre, Gate 2B, Hartley Grove, Urrbrae
Sustainable Resources	Roger Wickes Director	phone (08) 8303 9522 fax (08) 8303 9555 Soil and Water Environs Centre, Gate 4, Hartley Grove, Urrbrae
Mineral Resources	Neville Alley Director (<i>acting</i>)	phone (08) 8463 3032 fax (08) 8463 3031 4th floor, 101 Grenfell Street, Adelaide
Petroleum	Bob Laws Director	phone (08) 8463 3201 fax (08) 8463 3202 7th floor, 101 Grenfell Street, Adelaide
Office of Energy Policy	Cliff Fong Executive Director	phone (08) 8226 5544 fax (08) 8226 5541 Level 19, Wakefield House, 30 Wakefield Street, Adelaide
Industry Development	Roger Hartley Director	phone (08) 8226 0307 fax (08) 8226 0221 17th floor, Grenfell Centre, 25 Grenfell Street, Adelaide
Information Management	David Blair Director	phone (08) 8226 0374 fax (08) 8226 0328 3rd floor, 101 Grenfell Street, Adelaide
Finance and Strategic Planning	Geoff Knight Director	phone (08) 8226 3368 fax (08) 8226 0299 15th floor, Grenfell Centre, 25 Grenfell Street, Adelaide
Human Resources	Phil O'Loughlin General Manager	phone (08) 8226 0231 fax (08) 8226 0476 14th floor, Grenfell Centre, 25 Grenfell Street, Adelaide
Public Relations and Communications	Kay Matthias General Manager (<i>acting</i>)	phone (08) 8226 0338 fax (08) 8226 0027 17th floor, Grenfell Centre, 25 Grenfell Street, Adelaide
Office of Regional Development	Wayne Morgan Director	to be determined