

CHAPTER

■ GEOSCIENCE AUSTRALIA

Geoscience Australia

Outcome performance

Performance reporting structure

Outcome 1 – Enhanced potential for the Australian community to obtain economic, social and environmental benefits through the application of first class geoscientific research and information.

Outcome performance indicators

Exploration companies' behaviour influenced by Geoscience Australia's research and information products.

Geoscience Australia's information used by the Department of the Environment and Water Resources and other government agencies to determine candidates for Marine Protected Areas.

Organisations concerned with land use, regional development and the environment use Geoscience Australia's spatial information products.

Government agencies use Geoscience Australia's advice and information products to support national interest activities such as defence, border protection and emergency response.

Measures and targets

Evidence of exploration companies' decisions being influenced.

Level of satisfaction of agencies and other stakeholders with the information supplied.

Organisations integrate information from Geoscience Australia into portfolio business and decision making.

Geoscience Australia invited to forums on land use, regional development and the environment.

Feedback that shows Geoscience Australia meets defence requirements and meets standards when contributing to the national geographic information infrastructure that underpins management of the environment, natural resources and safety of Australians.

Research and information influences exploration

Oil and gas

Geoscience Australia provides pre-competitive geoscience information to attract petroleum exploration investment to Australian offshore basins in a competitive international market for exploration capital and human resources.

Geoscience Australia delivered the final outputs for the New Petroleum Program, a four-year Budget measure announced by the Australian Government in May 2003. This program focused on assessing and promoting frontier regions in offshore Australia, acquiring new data and preserving legacy seismic data.

The program's impact is evident from the uptake of frontier acreage in the Bremer Sub-basin (western Great Australian Bight). The results

of Geoscience Australia's Bremer Sub-basin study supported the release of two designated frontier blocks from the 2005 acreage release. The awarding of the Bremer permits to Plectrum Petroleum plc was announced in September 2006. Plectrum, a United Kingdom exploration company and new entrant to the Australian industry and work program, had an indicative value of \$80 million in their winning bid.

The study of the geology and petroleum prospectivity of the southwest margin (Vlaming Sub-basin and Mentelle Basin) continued in 2006–07. There are now three exploration permits in the Vlaming Sub-basin with indicative work programs totalling \$59 million.

Bidding for the Arafura acreage closed in May 2007 and awarding of the permits is pending. This bidding flowed from a survey conducted in the Arafura Sea in 2005. The Arafura science results were presented to industry at various geoscientific conferences and at company meetings.

A study of the petroleum geology of the eastern Bight Basin was expanded to reassess the potential of Australia's southern margin. A major marine geological and seepage sampling survey was undertaken in the Bight Basin in February–March 2007. Nine sites were visited, 37 dredges, 15 grab samples and 67 gravity cores taken, and 4600 kilometres of swath and 2400 kilometres of sub-bottom profiler data collected. Preliminary analysis of dredge material indicates the occurrence of some potential hydrocarbon source rocks in this frontier basin. Many collaborations with Australian and international researchers were established, progressing the understanding of the hydrocarbon prospectivity of the southern margin.

As a result of a 2006 sampling and seepage survey on the Central North West Shelf (offshore Canning and Roebuck basins), a frontier region between the proven hydrocarbon provinces of the Carnarvon and Browse basins, four frontier acreage release areas (offshore Canning Basin) were released in April 2007 and remain open for bidding until April 2008.

Geoscience Australia's study of the remote offshore frontier Capel, Faust and Fairway basins, located over 800 kilometres due east of Brisbane, continued in 2006–07. A major seismic survey in November–January collected 6000 kilometres of high quality 2-D seismic data, imaging, for the first time, significant new depocentres. Analysis of the seismic and other data is underway to assess the hydrocarbon potential of this remote frontier province.

In November 2006, Geoscience Australia promoted Australian offshore exploration investment opportunities at the American Association of Petroleum Geologists International Conference in Perth to over 2600 delegates from more than 60 different countries. Geoscience Australia gave 13 technical presentations and held a fully subscribed frontier basins workshop for 29 participants from 20 international and local exploration companies. Other promotional events included the North American Prospectors Expo in Houston (February 2007) the Australian Petroleum Production and Exploration Association Conference in Adelaide (April 2007) and local and international (Asian, European and North American) company visits.

As part of the New Petroleum Program, the final phase of the preservation of deteriorating seismic records in the national archive of petroleum industry data was completed and over 640,000 data records transcribed. The continued increase in industry data loans from the archive indicated strong exploration interest, which has translated into competitive work programs.

A record number and value of bids was received for the 2006 acreage release, with the announcement in April 2007 of work program commitments for 12 awarded permits totalling over \$1,000 million. The successful companies included several new entrants to the Australian exploration scene.

In August 2006, the Prime Minister, the Hon. John Howard MP, announced an additional \$76.4 million funding for Geoscience Australia's petroleum activities as part of a five-year Energy Security Initiative. A round of industry consultation was held, shaping the forward program of new data collection in frontier basins. A key component of the Energy Security Initiative, and an early outcome of the program, is the compilation of petroleum data packages of seismic and well data in workstation ready format, relevant to the 2007 acreage release areas. In the two months since the release, 28 data packages have been distributed. An Acreage Release Data Room within the Geoscience Australia premises was established. The data room allows industry to visit, review and work up data while gaining access to petroleum prospectivity expertise. The first industry visitors to the data room arrived in June 2007.

Onshore energy and minerals

Geoscience Australia continued to contribute to increased mineral exploration investment in Australia through innovative geoscience research and information, providing new insights into Australia's mineral potential. This pre-competitive geoscience program is conducted in partnership with the states and the Northern Territory under the National Geoscience Agreement. The work facilitates more targeted and cost-effective exploration strategies by industry.

Under the Energy Security Initiative, an additional \$58.9 million was provided for onshore energy security. Geoscience Australia began acquiring new geophysical data to attract investment in exploration for onshore petroleum, uranium, geothermal and thorium energy sources.

Geoscience Australia completed seismic data acquisition in the Mount Isa region in collaboration with the Geological Survey of Queensland, the predictive mineral discovery Cooperative Research Centre (of which Geoscience Australia is a partner) and an industry exploration company. Another seismic survey commenced in the Cloncurry-Georgetown-

Charters Towers region. Both surveys will help assess the potential of northwest Queensland for new uranium and geothermal energy resources. Other geophysical surveys underway or completed include a continent-wide airborne radiometric survey, an aeromagnetic survey of areas in the Canning Basin in northern Western Australia (where the focus is on petroleum), and a gravity survey of areas of the Cooper Basin in southwest Queensland to investigate the potential for geothermal energy. A map of granite heat production and adjacent and/or overlying sedimentary basins was produced to help predict areas of hot-rock geothermal potential.

Geoscience Australia worked with the states and Northern Territory, through a Team Australia approach, in conducting technical exhibitions and presentations at major national and international industry conferences throughout the year. This year's promotions included the annual Prospectors and Developers Association of Canada International Convention; the Trade Show and Investors Exchange (the world's largest mineral exploration event); China Mining in Beijing, a seminar in Beijing (in partnership with the states, the Northern Territory, Invest Australia and the Australian embassy in Beijing); and a seminar in Tokyo (in partnership with Invest Australia and the Australian embassy in Tokyo). These promotional activities aim to increase the level of investment in Australian mineral exploration and encourage discovery of new mineral deposits.

Technical advice and information on minerals, energy and related issues was provided to the Department and other agencies. This included a range of geoscientific products to underpin salinity management in the Murray-Darling Basin, the Ord Catchment in Western Australia and the Burdekin Catchment in Queensland, prepared in collaboration with the Cooperative Research Centre for Landscape Environments and Mineral Exploration.

In August 2006, the Minister for Industry, Tourism and Resources, the Hon. Ian Macfarlane MP, and the Minister for Education, Science and

Training, the Hon. Julie Bishop MP, launched the Australian Offshore Mineral Locations Map, the first of its type in the world. The map, a collaborative venture between Geoscience Australia, CSIRO's Wealth from Oceans Flagship, and the state and Northern Territory geological surveys, provides insight into marine mineral potential for strategic and long-term resource and conservation planning.

Geoscience Australia made submissions to the Uranium Industry Framework House of Representatives Standing Committee on Industry and Resources' case study into the strategic importance of Australia's uranium resources and the Prime Minister's *Uranium Mining, Processing and Nuclear Energy Review*. To assist the Uranium Industry Framework Implementation Group, and in collaboration with the Joint Ore Reserves Committee and uranium mining companies, Geoscience Australia prepared an information paper on resource estimates for in situ leach uranium deposits and reporting under the Joint Ore Reserves Committee Code that will help companies estimate in situ leach resources.

Work Geoscience Australia undertook, as part of the predictive mineral discovery Cooperative Research Centre, was taken up by industry, particularly the building of new 3-D geological maps, and acquisition of deep seismic data to provide constraints in construction of the 3-D maps. The 3-D maps provide a structural framework explaining the broad-scale distribution of mineral deposits in a region, as well as some of the local controls in major fault systems. In conjunction with state geological surveys and industry, Geoscience Australia was involved in acquiring, processing and interpreting deep seismic surveys in western New South Wales, central Victoria and the Mount Isa region in Queensland. Geoscience Australia continued to explore better ways to present its research, knowledge and products to clients. Advanced visualisation products, such as 3-D movies, models and animations, are being used as communication tools. The products were developed in a new 3-D visualisation facility at Geoscience Australia and delivered as digital and

Internet-based products. Geoscience Australia implemented a new 3-D 'work-room' to allow scientists to work more effectively with three-dimensional information.

Geoscience Australia delivered a national-scale integration of geological data on Proterozoic geological provinces, which was used to evaluate the geodynamic setting of these provinces. This information made it possible to revise interpretations of the prospectivity of a range of commodities in these areas.

The Paterson project conducts research into the geological and metallogenic framework of the Paterson region in northern Western Australia and has developed an improved understanding of the geological evolution of a significant portion of that area. The project also facilitated investigation of mineralisation in a mineral systems context for the first time.

Identifying marine protected areas in the marine and coastal environment

Geoscience Australia provides geoscience information to the Department of the Environment and Water Resources and other government environmental managers to help manage Australia's estuaries, coasts and open ocean areas.

As part of the Energy Security Initiative, Geoscience Australia has developed a new strategy for delivering integrated marine environmental information in the form of regional 'seascape' maps. This new mapping strategy was presented at the annual Australian Petroleum Production and Exploration Association conference and to the Department of the Environment and Water Resources.

Geoscience Australia continued developing the Australian Marine Spatial Information System, a web-based science delivery tool. This interactive mapping and decision support tool aims to improve access to integrated government and non-government information in the Australian Marine Jurisdiction, particularly on maritime boundaries, fisheries boundaries, shipping,

and petroleum leases. Geoscience Australia completed user evaluations of the system and responded to 183 requests for marine boundary advice from Australian Government agencies. Geoscience Australia prepared evidence and provided expert witnesses for court cases against illegal foreign fishing vessels.

Geoscience Australia provided technical advice and information to the Department as well as to the Department of the Environment and Water Resources to support regional marine planning and selection of a national representative system of marine protected areas. Geoscience Australia participated in Science Reference Panels for the Southwest and Northern planning regions providing advice and information to guide design of the marine protected area network around Australia, and reports on marine environment aspects to the Department of the Environment and Water Resources.

Geoscience Australia was a partner in two successful Commonwealth Environment Research Facility proposals to establish new program 'hubs' to understand marine biodiversity and the ecology of tropical river systems in northern Australia. These research initiatives will strengthen collaborative arrangements between Geoscience Australia and partners in CSIRO, the Department of the Environment and Water Resources, the Australian Institute of Marine Science and universities.

OzEstuaries, the national online estuary database, supports community and government decision makers in coastal zone, estuary and waterway management, and was expanded with outputs from the Coastal Cooperative Research Centre. *OzEstuaries* includes modules on environmental management and geology and geomorphology. There are also new fact sheets on climate change issues and indicators. Geoscience Australia completed its outputs for the Coastal Cooperative Research Centre with major reports and publications on the Fitzroy River estuary and Keppel Bay. Geoscience Australia also completed a major study on water quality in Bremer Bay jointly with the Western Australian Government.

Spatial information

Spatial information assists land use, community safety and the spatial information industry.

Fundamental spatial information

As part of the National Topographic Information Coordination Initiative, Geoscience Australia has been working with all states and territories to improve the quality of Australia's Spatial Data Infrastructure to meet the needs of mineral and petroleum explorers, natural resource managers, emergency managers, regional developers and the spatial information industry.

Under the Australian Government's spatial data access and pricing policy, Geoscience Australia provides the 1:250,000 topographic mapping of Australia free of charge to government, industry and the community through *MapConnect*, a state-of-the-art online mapping system.

As part of Geoscience Australia's response to the COAG Disaster Mitigation reforms, new large-scale mapping was completed over high priority areas in Queensland, New South Wales, Victoria, Western Australia and the Northern Territory. The new mapping, including buildings, key infrastructure, roads, water bodies and utilities, feeds directly into Emergency Management Atlases and other data and map products for the broader community. It also provides the basis for maintaining Geoscience Australia's national data and map products.

The large-scale mapping program for emergency management provided significant opportunities to coordinate other activities in support of natural resource management. Geoscience Australia coordinated procurement of high-resolution imagery with state agencies, regional natural resource management bodies and local government, and provided access to this information on a whole-of-government basis. Links were developed between data needed for both emergency management and land use mapping and planning. Data on water bodies, for example, supports numerous water security projects at Australian and state government levels.

Following completion of the new 1:1,000,000 scale World Aeronautical Charts in collaboration with Airservices Australia, an agreement for ongoing maintenance was signed on 22 May 2007. Geoscience Australia delivered 32 datasets and 29 new maps to the Defence Imagery and Geospatial Organisation, and scanned an additional 12,042 maps.

Geoscience Australia, the Department of the Environment and Water Resources (through the Australian Greenhouse Office) and ANZLIC – the Spatial Information Council initiated a major new initiative to improve the quality of Australia’s elevation data to support coastal vulnerability, climate change adaptation and emergency management. The new national elevation program will deliver a shared digital representation of Australia’s landforms and seabed at a range of scales to meet local, regional and national requirements.

Geoscience Australia continued to work closely with the United States Geological Survey in receiving data from the Landsat-5 and Landsat-7 satellites. Over 27,000 Landsat scenes of Australia were stored and over 1500 images were provided to users. Monitoring of land cover for carbon accounting and environmental protection continued to be the dominant use. Geoscience Australia continued preparing for the eventual end of Landsat-5 and Landsat-7, providing Australian input to the planned Landsat continuity mission and progressing contingency plans to access alternative satellites.

From December 2006, Geoscience Australia received data from the new Japanese Advanced Land Observing Satellite. Over 130,000 scenes are available to Australian Government users. Uses have included monitoring of internationally significant wetlands and mapping of flooding in the Hunter Valley. There are 58 established non-commercial users. Geoscience Australia also tested data received from the China–Brazil Earth Resource Satellite and the India Space Research Organisation, ResourceSat-1.

Geoscience Australia co-chaired the Interdepartmental Committee for Commercial Satellite Capabilities, which aims to improve the efficiency and effectiveness of commercial remote sensing across Australian Government agencies. The Interdepartmental Committee used industry briefings to inform participants of emerging commercial satellite systems such as Ausbird (Germany), Cosmo-SkyMed (Italy) and Radarsat-2 (Canada). A subcommittee was formed to manage installation of new remote sensing ground stations to support the Global Initiative on Forests and Climate.

Geoscience Australia continued to monitor international developments in satellite systems and influence those developments where possible. Two successful research proposals will give Geoscience Australia access to evaluation data from the TerraSAR-X satellite (Germany) and Radarsat-2.

Spatial information industry

Geoscience Australia worked closely with other federal agencies, and the states and territories on the spatial enablement of government. Geoscience Australia worked with government partners to implement the Online and Communications Ministerial Council’s decision on a National Address Management Framework. Geoscience Australia provided Australian leadership in spatial enablement through chairing the Permanent Committee on Geographic Information Systems Infrastructure for Asia and the Pacific.

Geoscience Australia worked with the Department, the Department of Immigration and Citizenship, and the Department of Families, Community Services and Indigenous Affairs to explore ways to improve performance and productivity through application of spatial technologies. Technologies such as web-based mapping and Geographic Information Systems, and address validation and geocoding have generated considerable interest. These actions leverage off the breadth of spatial capabilities in Geoscience Australia, provide potential new opportunities for the industry, and support the e-Government strategy and spatial enablement of government.

Through participation in the Cooperative Research Centre for Spatial Information, Geoscience Australia, in collaboration with government and industry, is developing new technologies and systems that will enhance its capabilities in the spatial information domain.

Accurate navigation and positioning

In collaboration with the national and international geodetic community, Geoscience Australia continued to provide the geodetic infrastructure underpinning all satellite navigation and positioning services in Australia. Geoscience Australia's satellite laser ranging site near Perth ranks as the world's best satellite laser ranging site for tracking the most satellite passes in a calendar year, with the recently rebuilt Mount Stromlo observatory near Canberra ranking second. These two stations collectively provide 25 per cent of the data volume from the global network of more than 40 stations.

Advice and information to support national interest

United Nations Commission on the Limits of the Continental Shelf

In conjunction with the Department of Foreign Affairs and Trade and the Attorney-General's Department, Geoscience Australia continued interactions with the Sub-commission of the United Nations Commission on the Limits of the Continental Shelf. The Sub-commission has completed its examination of Australia's submission and has passed its draft to the full Commission for consideration. A recommendation is expected in late 2007. International delegations visited Geoscience Australia during the year to draw upon Australia's experience in preparing its extended continental shelf submission.

Carbon dioxide capture and geological storage

Geoscience Australia continued providing advice to the Department on industry proposals to mitigate greenhouse gas emissions. Geoscience Australia also provided the Department with technical advice on amendments to the *Offshore Petroleum Act 2006* to incorporate geological storage of carbon dioxide. Geoscience Australia continued to support the Department in fostering many government-to-government international forums (including the Carbon Sequestration Leadership Forum).

Geoscience Australia continued contributing to the Cooperative Research Centre for Greenhouse Gas Technologies' regional geological studies.

Critical infrastructure protection

Geoscience Australia, in partnership with the Attorney-General's Department and CSIRO, completed the second full year developing the Critical Infrastructure Protection Modelling and Analysis program. The program focuses on three priority sectors: energy, communications, and banking and finance. Key achievements were development of a robust engineering program to evaluate critical infrastructure exposure and vulnerability. The capability has a major inventory of assets in the energy sector to assess repair and recovery costs in the event of a damaging event or system failure. The program developed its water sector capability from a series of national workshops to define user requirements for systems analysis.

Natural hazards risk assessment framework

Through Geoscience Australia's leadership in developing a national risk assessment framework, the Australian Emergency Management Committee endorsed formation of the National Risk Assessment Advisory Group and the Technical Risk Assessment Advisory Committee. These committees provide essential governance for further implementation of COAG

reforms on natural hazard risk and data through the Disaster Mitigation Australia Package.

Geoscience Australia delivered a preliminary national tsunami hazard map, which will help states and territories prioritise their tsunami preparedness in key coastal communities. In collaboration with Western Australia and Tasmania, Geoscience Australia developed tsunami impact scenarios for several priority communities. Geoscience Australia provided extensive support to Emergency Management Australia in delivering tsunami education programs for Queensland, New South Wales and Western Australia. These products and activities significantly increased Australia's capacity to manage tsunami threats.

In support of COAG's report *Natural Disasters in Australia: Reforming mitigation, relief and recovery arrangements*, Geoscience Australia completed several products contributing to a sound knowledge base for managing natural disasters; in particular, Geoscience Australia progressed *Natural Hazards Online* (a fundamental tool for delivering Australian natural hazards information). Geoscience Australia released essential tools for earthquake and tsunami impact assessments as open source software products accessible globally. These products complement a national landslides database, demonstrating the power of combining disparate but interoperable data across jurisdictions into a seamless database. This demonstrator product enables nationally consistent datasets for use in disaster mitigation in Australia.

Geoscience Australia began a significant new initiative with AusAID to conduct a natural hazard risk assessment of the Australasian region and has been engaged by the Department of the Environment and Water Resources in a study of coastal vulnerabilities to climate change.

Seismic monitoring and alerts

The 2006–07 reporting period was the second year of a four-year program to strengthen the Australian National Seismograph Network, as part of the Australian Tsunami Warning System being developed jointly with the Bureau of Meteorology and Emergency Management Australia. Data collected from Geoscience Australia's seismograph network is now sent continuously to other agencies in New Zealand, Indonesia, Singapore, Malaysia, Japan, Germany, and the United States as well as to the Comprehensive Nuclear Test Ban Treaty Organization in Vienna.

Geoscience Australia increased the number of overseas seismograph stations to more than 100, from which it receives continuous data streams. This enhanced Geoscience Australia's ability to monitor earthquakes throughout the Asia-Pacific region. Geoscience Australia's earthquake monitoring centre began round-the-clock operations in November 2006. Geoscience Australia notified Emergency Management Australia of 27 earthquakes in the region. Emergency Management Australia forwarded this information to other Australian Government agencies, including the Department of Foreign Affairs and Trade, and AusAID. Of these earthquakes, 11 were potentially tsunamigenic and two generated tsunamis that affected Australia; run-ups reached eight metres above sea level at Steep Point on the Western Australian coastline on 17 July 2006 and on 2 April 2007 along the eastern coastline from an earthquake off the Solomon Islands. The Australian Bureau of Meteorology issued warnings.

Geoscience Australia detected 162 earthquakes within continental Australia, using the Australian National Seismograph Network. Five had a magnitude greater than four and were reported to Emergency Management Australia as being potentially damaging.

Australia, as a signatory to the Comprehensive Nuclear Test Ban Treaty, monitors nuclear explosions worldwide through Geoscience Australia. The monitoring is part of Australia's commitment to strengthening the global verification system. In addition to carrying out these roles on behalf of the Department of Foreign Affairs and Trade, Geoscience Australia provides related technical advice to key international stakeholders. Geoscience Australia provided Department of Foreign Affairs and Trade with details of a test North Korea conducted on 9 October 2006. On 10 October 2006, Geoscience Australia advised that a second North Korean test, as reported by Japan, was a false alarm.

AusAID continued to fund capacity building at the Rabaul Volcanological Observatory under the Rabaul Volcanological Observatory Twinning Program. Training was conducted for local staff on reliable operation of the equipment used in local and remote monitoring networks. The program provided emergency response funding and equipment to aid earthquake monitoring in the Sulu Range area of West New Britain Province in July 2006 (thought to be due to awakening volcanic activity).

Geoscience Australia uses networks of geodetic equipment to measure the shape of the Earth as a means of establishing spatial reference systems against which position on the surface of the Earth can be measured. The Australian Government announced \$15.8 million funding to enhance the national geodetic networks under the National Collaborative Research Infrastructure Strategy. Geoscience Australia will receive \$2.2 million of these funds over four years to enhance geodetic networks. Geoscience Australia will use an additional \$3.9 million of Australian Government funding, and \$3.7 million of funding from state governments, to construct approximately 84 Global Navigation Satellite System facilities across Australia as an extension to the Australian Regional Global Navigation Satellite Systems Network.

Spatial data infrastructure applied to underpin initiatives

The Sentinel bushfire hot-spot detection system operated smoothly through the extreme 2006–07 fire season, providing information to a record number of users—40,000 in December 2006. Sentinel uses data from the NOAA-17 and 18 satellites, which increases hotspot observations per day and builds redundancy in case of Moderate Resolution Imaging Spectrometer failure. Weather data from the Bureau of Meteorology was added to Sentinel, a development made possible through the National Service Improvement Framework.

Geoscience Australia deployed Elsys, the Energy Infrastructure information system (a spatial decision support tool), into the Department. Elsys helps develop national energy infrastructure plans and policies by providing on-screen maps and information.

National research priorities

Geoscience Australia's contribution to the Australian Government's national research priorities is detailed in the agency's national research priorities implementation plan. All activities identified for action were implemented.

Outputs

Output 1: Geoscientific information and knowledge

Quality

Geoscience Australia has a range of quality control measures ensuring products comply with government and industry standards. These measures include compliance with international quality standard ISO 9000-2001 for all national mapping products and projects. In addition, all scientific products are subject to internal and external peer review before publication.

Client satisfaction with Geoscience Australia's outputs is assessed through a number of mechanisms ranging from direct feedback to evaluation and national committee oversight. Geoscience Australia's projects have achieved high satisfaction feedback from:

- National Geoscience Agreement partners (all states and the Northern Territory)
- National Geoscience Agreement partner industry liaison committees and individual industry consultation
- national and international petroleum and mineral exploration industry companies through workshops and individual feedback
- the Department's Resources Division
- industry associations and representative bodies, such as the Australian Petroleum Production and Exploration Association, the Minerals Council of Australia and the Association of Mining and Exploration Companies
- state authorities
- a signed Collaborative Heads Agreement with both the Australian Greenhouse Office and the Bureau of Meteorology for provision of technical capability.

Quantity

Geoscience Australia undertook 80 projects in 2006–07. Of the 252 planned outputs, 246 were delivered.

Price

Administered expenses (including third party outputs) were \$20,000.

The total price for outputs was \$154.580 million (appropriation was \$125.398 million and revenue from other sources totalled \$29.182 million).

Management and accountability

Corporate governance

The structures and processes Geoscience Australia had in place during 2006–07 to implement the principles and objectives of corporate governance are described in this section.

Senior executives and their responsibilities

Geoscience Australia's Executive Board comprises the CEO, all Division Chiefs, the Chief Scientist, the General Manager Corporate Branch, the Chief Information Officer and the Chief Financial Officer.

A range of committees support the Executive Board in the areas of audit and risk, security, human resources, occupational health and safety, diversity, and workplace relations.

Corporate and operational plans

Geoscience Australia's Strategic Plan 2003–08 flows through the agency's operational plans, work programs and individual performance agreements.

Geoscience Australia maintains an accountability framework in which budgeted resources are directed to specific programs with clearly

articulated objectives and expected outcomes. The 2006–07 Work Program showed how the agency identified, accounted for, and managed the resources needed to deliver its activities. The Executive Board formally reviewed the progress against this plan at regular intervals during the year.

Ethical standards

Geoscience Australia continued to encourage adherence to the ethical standards contained in the APS Values and Code of Conduct. The agency also maintained a comprehensive set of Chief Executive Instructions. All employees have ready access to these documents via the agency's intranet.

Senior executive remuneration

The nature and amount of remuneration paid to Geoscience Australia's SES and equivalent senior executives is determined under individual Australian Workplace Agreements. Details of this remuneration are included in Table 10.

Internal audit, fraud control and risk management

During 2006–07 Geoscience Australia's Audit and Risk Committee met five times. In addition to its normal audit activities, the Committee approved a new Fraud Control Plan for 2007–09 following the two-yearly Fraud Risk Assessment (in accordance with the Commonwealth *Fraud Control Guidelines 2002*), developed internal control procedures to provide assurance with the annual Certificate of Compliance process, reviewed actions against the strategic and divisional Risk Treatment Plans, and acknowledged development of a business continuity plan for an influenza pandemic.

External scrutiny

During the reporting period there were no judicial or administrative tribunal decisions relevant to Geoscience Australia, or any investigations into Geoscience Australia's operations by the Commonwealth Ombudsman or any parliamentary committee.

Purchasing and assets management

During 2006–07, Geoscience Australia undertook its procurement in accordance with the *Commonwealth Procurement Guidelines* and the requirements of its Chief Executive Instructions.

Geoscience Australia reported all purchases of \$10,000 and above in the *Australian Public Service Gazette*. Contracts valued at \$100,000 or more were published on the website at www.ga.gov.au thereby complying with the appropriate Senate Order for departmental and agency contracts.

Assets Geoscience Australia manages include office equipment, plant and related equipment, furniture and fittings, computer software and equipment. The agency continued to improve its assets management by implementing improved procedures, and ensuring an increased level of financial accountability on both an individual and organisational basis.

Consultants and competitive tendering and contracting

During 2006–07, Geoscience Australia entered into 33 new consultancy contracts involving total expenditure of \$997,733. In addition, five ongoing consultancy contracts were active during 2006–07, involving total expenditure of \$140,431.

Details of consultancies valued at \$10,000 or more are available on the Geoscience Australia website at www.ga.gov.au. Geoscience Australia did not undertake any market testing activities during the reporting period.

Purchaser–provider relationships

Under a Ministerial agreement with the Department of Defence, Geoscience Australia manages contracts producing onshore defence topographic maps and data and defence air charts. External funding for 2006–07 totalled \$4.09 million.

Service charter

Geoscience Australia has a customer service charter available on its website at www.ga.gov.au. All commitments given in the charter in 2006–07 were met.

Legal services expenditure

The *Legal Services Directions 2005* require that by 30 October of each year, agencies must publicise their total expenditure on legal services for the previous financial year. Geoscience Australia's total expenditure on legal services during 2006–07 was \$374,643 (GST inclusive).

Managing human resources

Workforce planning, staff retention and turnover

Workforce data highlights Geoscience Australia's ageing workforce, with 16.2 per cent aged 55 and over, 30.4 per cent aged 50 and over, and 45.9 per cent aged 45 and over. Only 15.7 per cent of staff are aged under 30. Turnover of ongoing staff was 12 per cent, slightly lower than previous years, with resignations the largest proportion of this turnover.

The gender profile of the agency has remained stable with a predominantly male workforce (currently 72%). Women represented one-third of commencements during the reporting year.

Workforce planning processes continued from the previous year, with divisions identifying and addressing workforce risks in consultation with Human Resources. Considerable work was done on 'intention to stay' and identifying the succession talent bench. Recruitment played a part in addressing workforce risks, focusing on highlighting to potential candidates the benefits of working at Geoscience Australia.

Geoscience Australia initiated a Cadetship Program in 2007 with an initial intake of five cadets, all of whom are enrolled in the Bachelor of Global and Ocean Sciences at The Australian National University. The program provides income and work placement opportunities for cadets in the university teaching breaks, reinforcement of their academic learning, and an opportunity to experience first-hand what is involved in a career in the geosciences.

The graduate recruitment program continued with six new graduates in 2007. The program continues to include work placements in different areas of the agency, participation in the Australian Public Service Commission Graduate Development Seminar Series and internal development programs, senior level mentors, and regular meetings with managers and the Chief Scientist. Geoscience Australia has engaged, on an ongoing basis, 38 graduates recruited since 2001. Twenty-eight are still employed by Geoscience Australia.

Certified Agreement and Australian Workplace Agreements

At 30 June 2007, Geoscience Australia had 680 staff, 638 of whom were employed under the terms of the agency's Certified Agreement, and 42 under Australian Workplace Agreements comprising 11 SES and equivalents and 31 non-SES.

In addition to base salary, Australian Workplace Agreements may include access to performance pay, motor vehicle allowance and a range of other conditions by agreement.

Non-salary benefits for employees

Flexible remuneration packaging is available to employees covered by the Certified Agreement on a salary-sacrifice basis. Under flexible remuneration packaging, employees may choose to sacrifice up to 100 per cent of their pre-tax salary in return for a range of non-cash benefits.

The agency also has access to flexible work arrangements, home-based work, an employee assistance program and a range of leave entitlements.

Learning and development

Geoscience Australia delivered a range of learning and development activities, which aligned with the agency's Strategic Plan, Performance Indicators and Work Level Standards.

The key learning and development priorities in 2006–07 aimed to build scientific, technical, leadership, management and communication capabilities. Geoscience Australia provided a broad range of activities to build capability, including on-the-job training, participation in special projects, attendance at conferences and seminars and formal training (including in-house training, undergraduate and postgraduate study, and attendance at workshops).

The third program of *GeoPlus*, an innovative 12-month development program aimed at building leadership capability at the executive level, was concluded in 2006–07. A fourth program is currently underway.

The *GeoEssentials* program continued to build management capability at the APS 6 and EL 1 levels. This six-month program is designed for new or existing managers to develop a broader understanding of their roles and responsibilities within Geoscience Australia. The third program has been completed with the fourth program due to start in July 2007.

Geoscience Australia's orientation program, *GeoStart*, includes orientation to the work area, a one-day induction and a series of Australian Public Service and agency-specific programs.

The *GeoNext* program, introduced in early 2006, continued with tailored development and coaching for a group of potential leaders who are considered to be candidates for Group Leader and Chief of Division positions in Geoscience Australia within five years.

Employee statistics

At 30 June 2007, Geoscience Australia had 680 staff members (573 ongoing, 107 non-ongoing; see Table 12). Of the 680 staff members, one was based in Perth and two in Alice Springs, and the remainder were based in Canberra. During the year, there were 128 commencements (46 ongoing, 82 non-ongoing) and 93 cessations (68 ongoing, 25 non-ongoing). At 30 June 2007, there were 193 female and 487 male staff. Of the 680 staff members, 629 were employed on a full-time basis (474 male, 155 female) and 51 part-time (13 male, 38 female).

During the year 29 staff employed under Australian Workplace Agreements were paid performance-based pay.

Table 10: Performance payments 1 July 2006–30 June 2007 (Geoscience Australia)

APS classification	No. of recipients	Aggregate (\$)	Average (\$)	Bonus payments minimum (\$)	Bonus payments maximum (\$)
GA Band 3	20	\$160,793.15	\$8,039.66	\$2,878.53	\$13,406.40
SES equivalent	9	\$130,957.80	\$14,550.87	\$5,952.40	\$27,300.00
Total	29	\$291,750.95	\$10,060.38		

Note: Geoscience Australia Band 3 is equivalent to EL 1–2 (includes AWA Bands). All Geoscience Australia's actual SES officer performance pay is reported in Table 9.

Table 11: Certified Agreement and Australian Workplace Agreement coverage by classification, 30 June 2007 (Geoscience Australia)

APS classification	CA coverage	AWA coverage	Salary range (\$)	
			Min	Max
GA Band 1 Level 1	8	0	\$31,052	\$41,448 ^a
GA Band 1 Level 2	72	0	\$41,469	\$54,350
GA Band 2 Level 3	103	0	\$54,350	\$60,494
GA Band 2 Level 4	204	1	\$60,548 ^b	\$73,875
GA Band 3 Level 5	143	3	\$71,087 ^b	\$83,100
GA Band 3 Level 6	85	6	\$83,154 ^b	\$99,549 ^c
GA Band 3 Level 7	22	8	\$101,103	\$118,227
GA Band 3 Level 8	1	13	\$118,277	\$133,145
Band 1 SES or equivalent	0	5	\$122,000	\$145,000
Band 2 SES or equivalent	0	5	\$146,000	\$170,000
Band 3 SES or equivalent	0	1	\$187,000	\$210,000
Total	638	42		

Notes: Geoscience Australia's SES staff are also reported in Table 9

^a Non-reduction allowance of \$2,872 pa included

^b Non-reduction allowance of \$54 pa included

^c Non-reduction allowance of \$2,334 pa included

Table 12: Ongoing and non-ongoing employees by classification level and location
30 June 2006 and 30 June 2007 (Geoscience Australia)

APS classification	ACT		Vic.		SA		WA		NT		Total	
	June 06	June 07	June 06	June 07	June 06	June 07	June 06	June 07	June 06	June 07	June 06	June 07
Cadets	0	5	0	0	0	0	0	0	0	0	0	5
GA Level 1	9	3	0	0	0	0	0	0	0	0	9	3
GA Level 2	80	72	0	0	0	0	0	0	0	0	80	72
GA Level 3	116	102	0	0	0	0	0	0	1	1	117	103
GA Level 4	189	204	1	0	0	0	2	1	0	0	192	205
GA Level 5	129	145	0	0	0	0	1	0	1	1	131	146
GA Level 6	92	91	0	0	1	0	0	0	0	0	93	91
GA Level 7	26	30	0	0	0	0	0	0	0	0	26	30
GA Level 8	11	14	0	0	0	0	0	0	0	0	11	14
Band 1 SES or equivalent	5	5	0	0	0	0	0	0	0	0	5	5
Band 2 SES or equivalent	5	5	0	0	0	0	0	0	0	0	5	5
Band 3 SES or equivalent	1	1	0	0	0	0	0	0	0	0	1	1
Total	663	677	1	0	1	0	3	1	2	2	670	680

Note: GA = Geoscience Australia; SES = Senior Executive Service

Table 13: Ongoing employees by classification and gender,
30 June 2006 and 30 June 2007 (AWA Bands included) (Geoscience Australia)

APS classification	Female		Male		Total	
	June 06	June 07	June 06	June 07	June 06	June 07
Level 1	1	0	1	1	2	1
Level 2	23	26	16	18	39	44
Level 3	36	32	51	49	87	81
Level 4	51	59	124	118	175	177
Level 5	29	27	85	102	114	129
Level 6	10	14	80	72	90	86
Level 7	1	1	24	29	25	30
Level 8	2	2	9	12	11	14
SES or SES Equiv	0	0	11	11	11	11
Total	153	161	401	412	554	573

Note: includes inoperative employees

Table 14: Non-ongoing employees by classification and gender, 30 June 2006 and 30 June 2007 (AWA Bands included) (Geoscience Australia)

APS classification	Female		Male		Total	
	June 06	June 07	June 06	June 07	June 06	June 07
Cadets	n/a	2	n/a	3	n/a	5
Level 1	1	0	6	2	7	2
Level 2	20	10	21	18	41	28
Level 3	13	11	17	11	30	22
Level 4	6	4	10	24	16	28
Level 5	4	5	14	12	18	17
Level 6	0	0	3	5	3	5
Level 7	0	0	1	0	1	0
Level 8	0	0	0	0	0	0
SES or SES Equiv	0	0	0	0	0	0
Total	44	32	72	75	116	107

Table 15: Number of full-time and part-time employees by classification, 30 June 2006 and 30 June 2007 (AWA Bands included) (Geoscience Australia)

APS classification	Full-time		Part-time		Total	
	June 06	June 07	June 06	June 07	June 06	June 07
Cadets	n/a	5	n/a	0	n/a	5
Level 1	8	2	1	1	9	3
Level 2	68	56	12	16	80	72
Level 3	99	90	18	13	117	103
Level 4	185	192	7	13	192	205
Level 5	126	141	5	5	131	146
Level 6	90	88	3	3	93	91
Level 7	26	30	0	0	26	30
Level 8	11	14	0	0	11	14
Band 1 SES or Equiv	5	5	0	0	5	5
Band 2 SES or Equiv	5	5	0	0	5	5
Band 3 SES or Equiv	1	1	0	0	1	1
Total	624	629	46	51	670	680

Note: includes inoperative employees

Table 16: Number of full-time and part-time employees by gender 30 June 2006 and 30 June 2007 (Geoscience Australia)

Gender	Full-time		Part-time		Total	
	June 06	June 07	June 06	June 07	June 06	June 07
Male	461	474	12	13	473	487
Female	163	155	34	38	197	193
Total	624	629	46	51	670	680

Note: includes inoperative employees

Appendices— Geoscience Australia

Outcome resource table

Table 17: Geoscience Australia's total resources for Outcome 1

	(1) Budget ^a 2006–07 \$'000	(2) Actual 2006–07 \$'000	Variation Column (2) – (1)	Budget ^b 2007–08 \$'000
Administered expenses (including third party outputs)	20	20	–	20
Total administered expenses	20	20	–	20
Price of Geoscience Australia Outputs				
Output 1: Geoscientific research and information which meets Australia's geoscientific needs	125,398	125,398	–	144,596
Revenue from Government (appropriation)	125,398	125,398	–	144,596
Revenue from other sources	31,311	29,182	(2,129)	22,822
Total price for Output	156,709	154,580	(2,129)	167,418
Total for Outcome 1 (Total price of output and administered expenses)	156,729	154,600	(2,129)	167,438
			2006–07	2007–08
Average staffing level			670	680

Notes:

^a Full-year budget, including 2006–07 additional estimates

^b Budget before 2007–08 additional estimates

Occupational health and safety

The OH&S Committee met six times during the year to discuss and monitor health and safety issues and endorse policies and procedures within Geoscience Australia.

Geoscience Australia's safety record continued in a positive light during the year with journey and lunchtime sporting accidents comprising the majority of incidents reported.

All first aid officers completed their Hepatitis B vaccinations and updated training in cardiopulmonary resuscitation (CPR) protocols, emergency procedure refresher training for all fire wardens and general staff was conducted, and all

new starters received OH&S induction training. A successful trial emergency evacuation was conducted in November 2006. The ACT Fire Brigade updated breathing apparatus sets in May 2007.

Planning for a possible pandemic and its health implications continued during the year. OH&S and compensation legislative changes came into effect in April 2007. These changes were conveyed to staff.

Several OH&S policies were reviewed and ratified by the Executive Board. No directions were given under section 45 of the *Occupational Health and Safety (Commonwealth Employment) Act 1991* and Comcare issued no notices under sections 30, 46 and 47.

Freedom of information

Access to information

Applications for access to Geoscience Australia documents must be in writing, include the applicant's Australian address and contact details, and be accompanied by a \$30 application fee. Enquiries about the process should be directed to the Freedom of Information (FOI) Coordinator at the following address:

FOI coordinator

Legal and Procurement Branch
 Department of Industry, Tourism and Resources
 GPO Box 9839
 Canberra ACT 2601

Telephone: +61 2 6213 7742

Facsimile: +61 2 6213 7367

Functions, powers and organisation

The role, functions and organisational structure of Geoscience Australia is described in the portfolio overview (Chapter 2). Geoscience Australia employees exercise powers under legislation applying generally to the Australian Public Service, including the *Financial Management and Accountability Act 1997* and the *Freedom of Information Act 1982* (FOI Act).

Categories of documents

Each year Geoscience Australia produces many publications that are available to the public through its website and sales centre. Publications include maps, reports, newsletters and educational materials, some of which are free of charge.

Geoscience Australia holds data lodged with the Government under the *Petroleum (Submerged Lands) Act 1967*. This data is available upon payment of a fee. The categories of documents Geoscience Australia holds, some of which may be exempt from disclosure under the FOI Act, include:

- files dealing with policy advice on many topics, including briefing papers, analysis and advice by Geoscience Australia officers, reports, correspondence, submissions and other documents (an indexed list of files is available on Geoscience Australia's website)
- documents on internal administration, including personnel records, organisational and staffing records, financial and expenditure records, internal operating procedures, instructions and circulars
- databases containing information on organisational functions and activities
- agreements, including formal agreements about performance of Geoscience Australia's functions.

Consultative mechanisms and arrangements

Geoscience Australia consults regularly with its clients and key stakeholders on its planned outcomes and outputs and how they can best be delivered. This consultation takes place at regular meetings between Geoscience Australia senior management and client/stakeholder representatives and informally at conferences and seminars throughout the year.

FOI statistics

During 2006–07 Geoscience Australia received no requests under the FOI Act.

Advertising and market research

Table 18 sets out payments Geoscience Australia made to external organisations for advertising, market research and direct mail services in 2006–07. Payments of less than \$10,300 value (inclusive of GST) are not reported. No payments of more than \$1500 were made to advertising agencies and direct mail organisations.

Table 18: Advertising and market research payments (Geoscience Australia)

Recipient	Service	Amount (\$ GST inclusive)
Market research or polling organisations		
ClientWise Pty Ltd	Internal 2007 surveys of Geoscience Australia staff regarding performance of Corporate Branch	14,300
<i>Sub-total</i>		<i>14,300</i>
Media advertising organisations		
ASF Limited	Website banner ASF Limited 2007 Australian Science Festival	1,750
ASF Limited	Australian Science Festival program and promotion of Geoscience Australia's 2007 open day	3,600
Australian Science Teachers Association	Advertisement in the Australian Science Teachers Association's resource book, <i>Our Dry Continent</i> , to promote Geoscience Australia's educational activities and website	1,500
National Capital Education	One-page advertisement in 2008 National Excursion Planner and CD-ROM for school excursion visits	1,545
Palamedia	Advertisement in the Energy, Minerals & Mining showcase publication of China–Australia Business 2007	13,145
National Mailing	Preparation, marketing and distribution of Geo Logi short film competition	4,987
Executive Media	Advertising NATMAP Raster digital maps product in <i>Caravanning Australia</i> magazine Spring edition	1,586
South Pacific Science Press	Advertising GEODATA products in <i>Position</i> magazine October/November 2006 and April/May 2007 editions	3,660
Petroleum Exploration Society	Advertisements to promote acreage release for 2006 and 2007 and Geoscience Australia products	7,270
<i>Sub-total</i>		<i>39,043</i>
Total		53,343

Ecologically sustainable development

Many of Geoscience Australia's programs contribute to improving understanding about the health of the natural environment and the extent of Australia's physical and other resources base. In 2006–07, the agency contributed to ecologically sustainable development by:

- contributing information and advice to enhance understanding of groundwater flows and the extent and causes of salinity in the Murray–Darling Basin, including the Murray River Corridor, with contributions to the Murray–Darling Basin Commission, the Bureau of Rural Sciences, Catchment Management Authorities and the National Action Plan for Salinity and Water Quality
- consulting with all significant mines in the Murray–Darling Basin to provide:
 - a greater understanding of the region's use and reliance on surface and groundwater on a site-by-site basis
 - input to formulation of government policy on sustainable use of water by the mining industry in the Murray–Darling Basin
- providing maps and satellite imagery to state and local government authorities, farmers and others involved in catchment and marine management, environmental monitoring, resource conservation and related activities

- providing topographic data, maps and imagery to the Department of Agriculture, Fisheries and Forestry in relation to developing the National Agricultural Monitoring System, Natural Heritage Trust and National Action Plan for Salinity and Water Quality programs
- providing the Murray–Darling Basin Commission with new mapping of farm dams and water bodies in relation to water security
- working collaboratively with the states, regional bodies and local governments to coordinate procurement of high resolution satellite imagery and capture of fundamental spatial data to support Natural Resource Management and Emergency Management programs
- initiating development of a new whole-of-government national elevation program that will develop an integrated representation of Australia’s landforms and seabed to support scientific, policy and operational issues associated with coastal vulnerability and natural resource management
- providing the Department of Defence with spatial data and information over major training grounds in support of training and sustainable management
- developing, in collaboration with key stakeholders, a draft national risk assessment framework for risk assessment models, methods and databases
- developing engineering damage models for flood, earthquake and wind, and initial reports on national assessments of risks from major sudden-onset natural hazards
- providing advice on Australia’s mineral and energy resources to help the Australian Government develop policies for efficient and sustainable use of these resources
- providing advice and information to support government decisions on land use and land management on Christmas and Cocos Islands
- providing advice on petroleum exploration permits and environmental legislation relating to petroleum title areas
- providing information, including data from marine surveys acquired under *Environment Protection and Biodiversity Conservation Act 1999* approval, to help the Australian Government attract international exploration investment in the search for petroleum and thus sustaining Australia’s future indigenous oil supply
- improving the decision process on conservation, natural resource and environmental management of the coastal zone whilst maintaining national interests in the declaration of Marine Protected Areas of Australia’s Exclusive Economic Zone
- providing, through the Cooperative Research Centre for Greenhouse Gas Technologies, the geological research necessary for geological storage of carbon dioxide
- contributing to Regional Marine Planning, and management regimes of Commonwealth Marine Reserves, Parks and Protected Areas
- assessing estuarine and waterway health, and mapping the shape and composition of the seabed around Australia, to help environmental managers conserve the diversity of marine life, and select regions as candidates for marine protected areas
- enhancing Australia’s influence in protecting the Antarctic environment by coordinating research, supporting the Antarctic Treaty System and highlighting Antarctica’s role on the global climate system
- studying the relationships between oceanographic processes, marine geology, sea floor habitats and the ocean environment
- contributing scientific advice to the United Nations Environment Program Group of Experts on the Global Regional Assessments of the Marine Environment
- helping develop a regulatory regime to underpin carbon dioxide capture and storage projects in Australia

- engaging in international carbon dioxide capture and storage collaboration activities through government-to-government mechanisms such as the Carbon Sequestration Leadership Forum and through country-to-country activities such as the Asia-Pacific Partnership on Clean Development and Climate.

Other ecologically sustainable development initiatives

The Geoscience Australia building features a significant number of ecologically sustainable development principles including a geothermal airconditioning system, double-glazing, north-south facing axis, large building footprint and a Building Control Management System.

Management practices contributing to ongoing ecologically sustainable development performance included:

- A continual improvement program within the outsourced Facilities Management Contract to promote and implement responsible environmental management in the operation of the facilities. Ecologically sustainable development principles are applied in areas of energy management, consumables use, recycling, efficient building operation, cleaning, chemical usage, pest control, care of site flora and fauna and ongoing development.
- Monitoring of energy usage is conducted 24 hours a day at the Geoscience Australia building. Energy audits (Level 3 standard AS/NZS 3498:2000) are conducted every two years.
- An Environmental Management System, which systematically enables the agency to identify, modify and control its impact on the environment. The system provides a structured approach to planning and implementing environmentally friendly initiatives to improve waste management, recycling, chemical disposal and monitoring of water and energy usage.

- Geoscience Australia's Green Team is a voluntary committee comprising interested staff who are leading the way to ensure more environmentally friendly workplaces. The Green Team's initiatives link to the Environmental Management System targets and initiatives.

Through the Environmental Management System and Green Team, a number of environmentally friendly procedures and/or practices have been initiated, they include:

- providing awareness training for all staff
- providing Environmental Management System information to all new employees and contractors
- monitoring of already established green initiatives to ensure procedures and processes are still being followed
- installing the 'Desert Cube Waterless Urinal System' in the building in September 2006, estimated to decrease the amount of water used in urinals by 98 per cent, saving up to 151,000 litres of water per urinal per year
- investigating ways to reduce landfill waste, including recycling all paper hand towels from bathrooms, food scraps and ways to increase the amount of paper recycling
- installing a light reflector system in various areas of the building to reduce the amount of energy consumed.

Commonwealth Disability Strategy

Employer

Information on positions vacant is available to potential applicants electronically on Geoscience Australia's website at www.ga.gov.au and in the *Australian Public Service Gazette*. Geoscience Australia aims to comply with the World Wide Web Consortium's *Web Content Accessibility Guidelines 1.0*. For those who are not able to

access the Internet, position details can be faxed or posted. Arrangements are made for any applicant who has special requirements for an interview.

Geoscience Australia engaged two new staff members who declared a disability. While neither of those employees required special equipment, discussions took place with the OH&S Manager on accommodating their needs in the event of an evacuation.

Divisional OH&S representatives are trained to undertake workplace assessments. Training and development programs are monitored to ensure the needs of staff with disabilities are considered and that information on disability issues is incorporated. A number of channels are available for staff to lodge complaints or grievances on disability issues. None were reported in 2006–07.

Purchaser

Geoscience Australia ran 39 tenders during 2006–07. All were advertised electronically through AusTender. There were no requests to obtain information by non-electronic means.

None of the purchases were assessed as having a direct impact on people with disabilities. All contracts offered for the purchase of services specifically stated that the contractor would need to comply with the provisions contained in the *Disability Discrimination Act 1992*.

Geoscience Australia did not make available any reports on the performance of its service providers.

Provider

Geoscience Australia's Service Charter is available at www.ga.gov.au and offers a number of ways in which customers can contact the agency. The Service Charter outlines a number of strategies the agency employs to improve its products and services, as well as monitor its performance.

