Australian Government
Geoscience Australia

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Annual Report 2021–22

Earth sciences for Australia's future

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Department of Industry, Science and Resources
Minister for Resources and Minister for Northern Australia: the Hon Madeleine King MP
Secretary of the Department of Industry, Science and Resources: Meghan Quinn PSM

Geoscience Australia
Chief Executive Officer: Dr James Johnson FTSE
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About this report

This report provides information on the activities of Geoscience Australia during the 2021–22 financial year.

Reporting framework

This report addresses the annual reporting requirements of the *Public Governance, Performance and Accountability Act 2013* and the Public Governance, Performance and Accountability Rule 2014.

Contact officer

Questions or feedback on this report can be addressed to the listed contact officer.

Contact officer	Director, Governance
Phone number	1800 800 173
Postal address	GPO Box 378, Canberra ACT 2601
Email	clientservices@ga.gov.au
Entity website	ga.gov.au

Accessing this report

This report can be downloaded from the Geoscience Australia website at ga.gov.au/about/corporate-documents/annual-report.

Geoscience Australia acknowledges the Traditional Owners and Custodians of Country throughout Australia and acknowledges their continuing connection to land, waters and community. We pay our respects to the people, the cultures and the Elders past and present.

Australian Government
Geoscience Australia

Cnr Jerrabomberra Avenue
and Hindmarsh Drive,
Symonston ACT 2609

GPO Box 378,
Canberra ACT 2601
Australia

+61 2 6249 9111
www.ga.gov.au

ABN 80 091 799 039

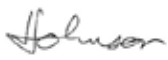
The Hon Madeleine King MP
Minister for Resources
Minister for Northern Australia
Parliament House
CANBERRA ACT 2600

Dear Minister

I present to you the 2021–22 Annual Report of Geoscience Australia for tabling before the Parliament, as required by section 46 of the *Public Governance, Performance and Accountability Act 2013*.

I certify that Geoscience Australia has prepared a fraud risk assessment and fraud control plan; has in place fraud prevention, detection, investigation and reporting mechanisms that meet its needs; and has taken all reasonable measures to appropriately deal with fraud.

Yours sincerely



Dr James Johnson FTSE
Chief Executive Officer
14 September 2022

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Overview

Chief Executive Officer's review

As one of the nation's trusted sources of information on Australia's Earth sciences, Geoscience Australia empowers decision-making by government, communities and industry. The breadth of our work covers the uniqueness of our island continent, our extensive marine jurisdictions and includes our frozen territories in the Antarctic.

Our work is guided by our 10-year strategy, *Strategy 2028*. As we are now 3 years into this strategy, during 2021–22 we reviewed our targets to ensure that they remain current. We made some updates to our targets and added some new ones where we have undertaken new and exciting work. We have also added an additional impact area to reflect the contributions of the corporate services that support our outcomes. As part of our work in updating the strategy, we also revised and updated our vision and mission statements:

> Our vision is to be a world-leading organisation informing evidence-based decisions through integrated Earth sciences to secure Australia's future.
>
> Our mission is that we are inclusive, innovative, respectful and collaborative in leading Earth sciences for government, communities and industry. This contributes to a strong economy, a resilient society and a sustainable environment.

Our impacts are assessed against 7 strategic priorities:

- Building Australia's resources wealth
- Supporting Australia's community safety
- Securing Australia's water resources
- Managing Australia's marine jurisdictions
- Creating a location-enabled Australia
- Enabling an informed Australia, and
- Trusted, sustainable and high performing.

In 2021–22, progress continued towards the decadal targets in each of these impact areas, notwithstanding continued disruption to our work from travel restrictions and lockdowns as a result of COVID-19.

Our key activities

Exploring for the Future

The value of precompetitive geoscience was clearly demonstrated by the only Tier 1 mineral discovery in the world in the past 5 years. Using our award-winning Mineral Potential Mapper, Chalice Mining Ltd identified the Julimar area near Perth as highly prospective. It contains the largest nickel sulphide discovery made in more than 2 decades and includes an estimated 10 million ounces of palladium, platinum and gold; 530,000 tonnes of nickel; 330,000 tonnes of copper; and 53,000 tonnes of cobalt.

Globally, only 15 Tier 1 and Tier 2 mineral discoveries have been made over the past 5 years, with 6 located in Australia. At least 5 of the 6 discoveries in Australia were supported by precompetitive geoscience data and knowledge through programs such as Exploring for the Future, a national program we lead. Government investment in precompetitive data and knowledge, which technically de-risks exploration – especially for underexplored regions – is central to Australia's advantage in a globally competitive resources sector.

The first phase of the program, which ran from 2016 to 2020, focused on identifying minerals, energy and groundwater resource potential across northern Australia. It unlocked a new resource-rich region spanning from Tennant Creek in the Northern Territory to Mount Isa in Queensland, leading to explosive growth in industry exploration. Our activities also directly supported almost 300 jobs in data collection and other fieldwork in the mining equipment, technology and services sector. As of February 2022, around 30 companies have taken up 140,000 km² of new tenements for exploration across the Northern Territory as a result of the data coming out of this program.

The program's current phase (2020–24) shifts emphasis to the southern half of the continent and 2 potentially resource-rich north–south corridors that span the country. This phase has already underpinned new exploration activity in South Australia and western New South Wales and Victoria, and directly supported 317 jobs, with more expected over the remaining 2 years.

Data Discovery Portal

Data from a large airborne electromagnetic survey throughout parts of New South Wales, Victoria, Queensland and South Australia was released through the Exploring for the Future Data Discovery Portal in September 2021. This data provides an unprecedented snapshot of the geology of south-eastern Australia, a region that has potential to host a wide range of mineral deposits including copper, gold, lead and zinc, as well as critical minerals. This data can also potentially be used to reveal new aquifers, which will help improve water security for agricultural and pastoral communities across south-eastern Australia.

Delivering precompetitive data and knowledge will unlock more resource-rich regions that will provide economic and employment growth for local communities and the nation. This growth comes from medium-term industry exploration expenditure and long-term resource development, generating a pipeline of discoveries and developments that provide revenue streams and economic stability over many decades.

Critical minerals are becoming increasingly important given their role in low-emissions technologies and risks around supply chain interruptions. Exploring for the Future provides data and information that helps identify prospective areas for critical minerals. Geoscience Australia has also begun studying tailings as a potential source of these elements. We developed an Atlas of Australian Mine Waste in cooperation with the University of Queensland, RMIT University and the Geological Survey of Queensland. This atlas can be used to identify potential areas of secondary prospectivity.

Positioning Australia

Positioning data underpins applications in most sectors of our economy. Information from the Global Positioning System (GPS) and other satellite navigation systems is crucial to transformative technologies used in vehicle navigation, intelligent transport and cities, smartphone applications, the internet of things (IoT) and autonomous mine operations.

Our Positioning Australia program is building a world-leading capability that Australians can trust and rely on. Enhancing the accuracy and reliability of positioning in Australia, the program will enable innovative technologies across a range of industries and societal applications. This will deliver economic, social and environmental benefits – accelerated economic growth is expected to reap at least $6.2 billion for Australia over 30 years.

SouthPAN

The program will give Australians instant access to real-time location data that is accurate to within 3–5 cm in areas with mobile coverage and 10 cm everywhere else on land and sea, versus 5–10 m currently. This will be delivered via a satellite-based augmentation system (SBAS) known as the Southern Positioning Augmentation Network, or SouthPAN.

SouthPAN will be the first SBAS in the Southern Hemisphere, led by a partnership between Geoscience Australia and Land Information New Zealand (LINZ). Procurement for the operational phase of SouthPAN is nearing completion, with contracts expected to be signed early in the 2022–23 fiscal year.

By June 2023, the program will also deliver an extra 57 satellite reference stations nationally as part of our 700 plus reference station network. Partnering with industry and state governments, we are working to improve positioning accuracy across Australia and our country's maritime zone.

Ginan

Another initiative under the Positioning Australia program is Ginan, the first Australian-developed open-source software to provide real-time corrections to positioning signals for all global navigation satellite system (GNSS) constellations. This enables precise point positioning for Australian industry and users. The name Ginan comes from the Wardaman people of the region south-west of Katherine in the Northern Territory. Ginan is a Wardaman word for a red dillybag filled with songs of knowledge, and is also the fifth-brightest star in the Southern Cross.

Earth observations from space

Geoscience Australia is the nation's satellite land remote sensing organisation and ensures Australians have access to the satellite imagery of lands and coasts that they need. This data is a valuable resource for a wide range of land management applications. Geoscience Australia and other organisations use it to better understand environmental conditions such as soil and coastal erosion, impacts of land management practices, deforestation, urban development, and water quality and availability.

National Space Mission for Earth Observation

The establishment of Australia's first civilian satellite program – the National Space Mission for Earth Observation – was announced in March 2022. Geoscience Australia will play an important role in implementing the program. The Australian Space Agency is coordinating this whole-of-government effort; other partners are the Bureau of Meteorology, CSIRO and the Department of Defence.

Geoscience Australia's involvement in the program, built on our Earth observation heritage dating back to the 1970s, advances our already deep support for the Australian Civil Space Strategy. This support ensures that the benefits of space data are realised on Earth, for all Australians, and connecting the space and spatial sectors of our economy.

Geoscience Australia will play a vital role in the development of 4 Australian land imaging satellites as well as establishing new international partnerships. Through the program, Australia will partner with and support a range of foreign systems currently in space or due to be launched.

We will grow new expertise, taking responsibility for the data these satellites will provide. We will also operate them once they're in orbit, and distribute the data to Australian users and international partners. The data will be unique, allowing us to compare it to, and combine it with, data from different satellite systems. This will reduce our dependence on any single data source and support the development of more powerful digital products and services for sectors such as agriculture and resources.

Landsat 9

Geoscience Australia has played a role in every Landsat mission since 1979. We were pleased to continue this support for the Landsat 9 launch in late 2021. Landsat 9 data is consistent with data from the previous Landsat satellites, providing an unbroken story of land changes through more than 40 years of Earth observation data.

Landsat 9 data will be fully incorporated into Digital Earth Australia (DEA), a Geoscience Australia service, by the end of 2022.

Digital Earth Australia

DEA also makes more than 30 years of landscape imagery and data from United States and European satellites freely available for Australians to see on interactive maps, download and access via web toolsand services. It provides access to satellite data and derived information products that support decision-making across government. Industry uses it to make investment-related decisions in sectors ranging from mining and agriculture to environmental and emergency management. DEA provides national-scale imagery that shows how our landscape has changed over time, right down to the paddock scale.

Digital Earth Africa

Digital Earth Africa – funded by the Australian Government and The Leona M. and Harry B. Helmsley Charitable Trust – is built on technology Geoscience Australia created and continues to use through the DEA program. A program management office for Digital Earth Africa was established within the South African National Space Agency (SANSA) in August 2021. Management of the program was handed over to SANSA in June 2022, making the program fully African owned and run.

National Earthquake Alerts Centre

On 22 September 2021, we recorded the largest earthquake in south-east Australia in the modern instrumental era. The magnitude 5.9 earthquake had its epicentre near Rawson, Victoria. Within 12 hours of the event, we received more than 40,000 felt reports from members of the public. Fortunately, the area is remote and no injuries were recorded but several buildings in Melbourne and surrounds suffered structural damage.

Geoscience Australia's National Earthquake Alerts Centre (NEAC) monitors earthquakes globally and alerts the Bureau of Meteorology of sub-sea earthquakes that could generate a tsunami. NEAC operates 24 hours a day, 7 days a week. It delivers authoritative, current and timely national data and advice on our built environment, the extent of hazards, and the exposure of our communities and assets during natural hazard events. This supports response and recovery, contributing to more resilient communities.

Science Strategy 2028

As part of ensuring that we provide high-quality science, we revised and published our *Science Strategy 2028*. We also undertook a round of evaluations in which panels of independent experts analysed our work. This process takes place every 5 years and leads to recommendations on how our science can have more impact, maximising its benefit to Australia and Australians.

Supporting STEM studies

We also actively promote the government's science, technology, engineering and maths (STEM) agenda, recognising that these are critical skills. Australia's National Science Statement sets a long-term approach to achieving a strong science system and has a vision for an Australian society engaged in and enriched by science. As part of supporting this, our Education Centre provides outreach to science students and educators, as well as curriculum-linked education programs designed to immerse students in hands-on geoscientific activities. Facilitated by experienced educators, general and custom-made programs are available to suit individual group needs, ensuring the best possible outcome for students. During this year, we welcomed our 150,000th student through the centre.

Our brand

Throughout the year, we strengthened the professional and trusted partnerships that enable Geoscience Australia to deliver benefits to government, industry and the community. We updated our organisational brand to better reflect our role and purpose so that our value is more visible and easily communicated to our stakeholders.

Diversity and Inclusion Strategy

Geoscience Australia continues to be a leader in fostering an inclusive and diverse culture. Attaining silver Science in Australia Gender Equity (SAGE) accreditation is a key component of our *Diversity and Inclusion Strategy*. We are committed to achieving all the objectives of this strategy and to being an employer of choice.

In May, we submitted our first silver SAGE Cygnet Award application under the inclusive culture theme. In November, I was thrilled to be the joint winner of the Australian HR Institute's CEO Diversity Champion Award! While this was nominally a personal award, it reflects the journey we as an

organisation have taken to progress diversity in the workplace. As a result of this award, I have been invited to present several talks that have given me an opportunity to describe our journey and to articulate the benefits we have seen.

We are committed to having a positive safety culture that is free from discrimination, harassment and bullying, while also nurturing a professional and supportive work environment. As part of this commitment, we have delivered a number of initiatives, including receiving accreditation as a Breastfeeding Friendly Workplace. We also launched a model of care that focuses on prevention, early intervention and targeted support for mental health and wellbeing services.

Digital Strategy

Our Digital Strategy continues to support our organisation to deliver fit-for-purpose and secure information and communications technology (ICT) capabilities. This includes a significant focus on our cyber resilience through the ongoing delivery of the Security Improvement Program.

Geoscience Australia continues to expand its influence and impact within the community and in government. We stand ready and able to continue to support the Australian Government in meeting its goals.

Dr James Johnson FTSE
Chief Executive Officer
14 September 2022

Geoscience Australia overview

Purpose

Geoscience Australia is the national public sector geoscience organisation. Our purpose is to be the trusted source of information on Australia's geology and geography for government, industry and community decision-making, and contribute to a safer, more prosperous and well-informed Australia.

Geoscience Australia supports evidence-based decisions through information, advice and services for a strong economy, resilient society and sustainable environment.

Role and functions

Geoscience Australia is the nation's trusted source of information on Australia's Earth sciences, empowering decision-making by government, communities and industry. Our work spans Australia's island continent, extensive marine jurisdictions and Antarctic territories.

We are inclusive, innovative, respectful and collaborative in our work, contributing to a strong economy, a resilient society and a sustainable environment.

For more than 110 years, Australia's prosperity and safety have been shaped by our knowledge of the country's dynamic landscape. Commonwealth geoscience has played an important role since the formation of the Australian Survey Office in 1910. For example, the nation's first national topographic mapping program was driven by the need to defend Australia's people and develop our regional areas. In later years, systematic mapping of the nation's geology to understand our resource endowment and drive new discoveries has underpinned Australia's economic success.

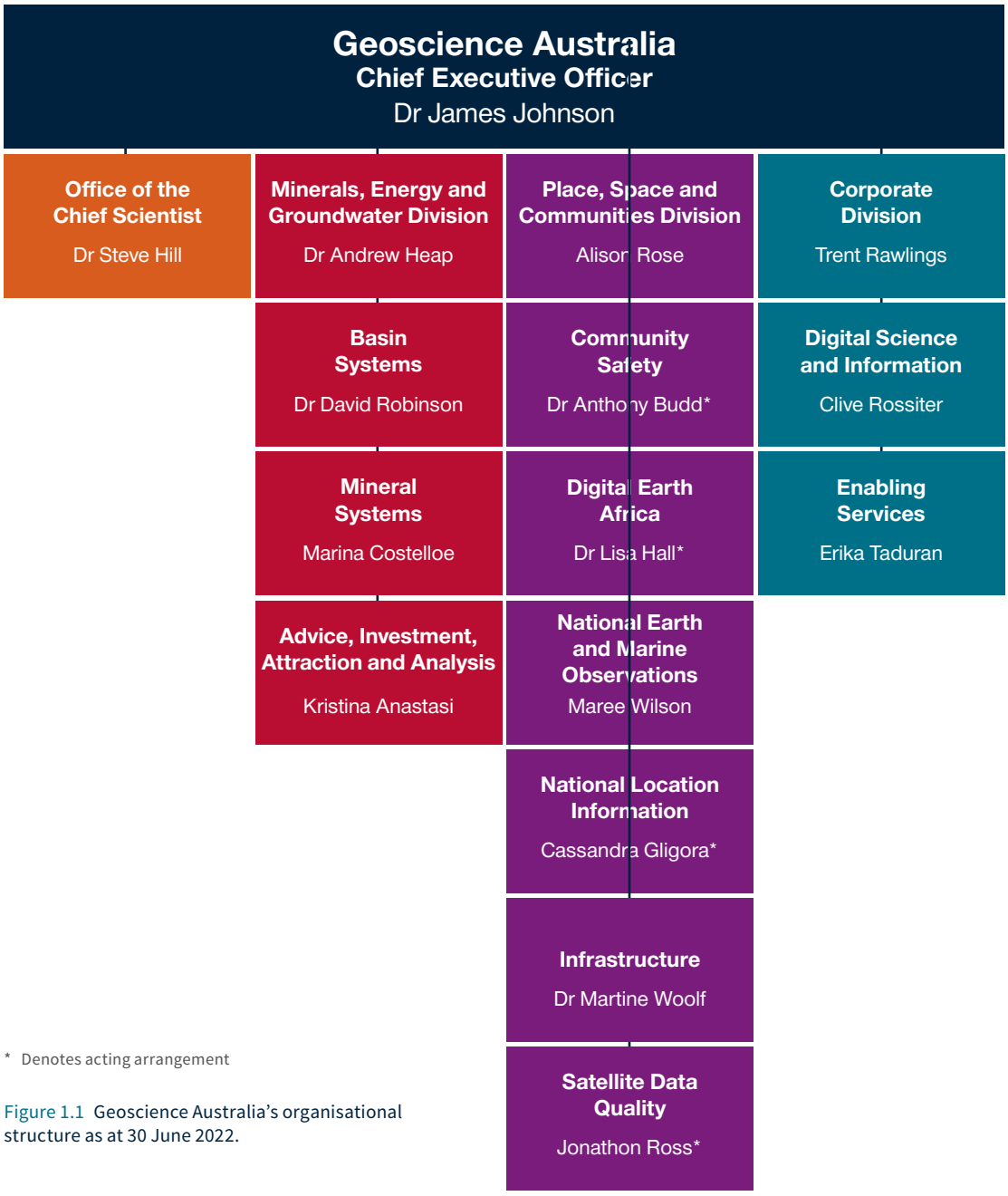
We continue to deliver data of enduring value, and advice that helps government, communities and industry to address challenges and enhance opportunities Australia faces, now and into the future. In doing so, we are committed to respectfully engaging and collaborating with First Nations Australians, acknowledging that they are Australia's original mappers, miners and navigators.

Geoscience Australia's work aligns with the Australian Government's Science and Research Priorities, and supports global and domestic initiatives. In achieving our purpose, our work has an impact on 6 key areas of national interest and is supported by a seventh area that focuses on the organisation's support and enabling functions:

- Building Australia's resources wealth – to maximise benefits from our mineral and energy resources, now and into the future
- Supporting Australia's community safety – to strengthen our resilience to the impact of hazards
- Securing Australia's water resources – to optimise and sustain the use of our water resources
- Managing Australia's marine jurisdictions – to support sustainable use of our marine environment
- Creating a location-enabled Australia – to use detailed and fundamental geographic location information to develop the nation
- Enabling an informed Australia – to equip government, industry and community with geoscience data and information to make informed decisions for our nation
- Trusted, sustainable and high performing – to support and share our work globally to ensure Geoscience Australia's value is known, accessible and used.

Geoscience Australia's organisational structure

Figure 1.1 shows Geoscience Australia's organisational structure as at 30 June 2022. The accountable authority of Geoscience Australia is the Chief Executive Officer, Dr James Johnson, who occupied that position throughout 2021–22.



* Denotes acting arrangement

Figure 1.1 Geoscience Australia's organisational structure as at 30 June 2022.

Outcome and program structure

Geoscience Australia has one outcome and one program, as shown in Figure 1.2.

Program 1 contributes to Outcome 1 by providing trusted information and advice on Australia's geology and geography to support faster and smarter decision-making. Through this program, Geoscience Australia develops innovative applications and solutions in response to Australia's most important challenges by bringing together observations, data and knowledge from across the geoscience disciplines.

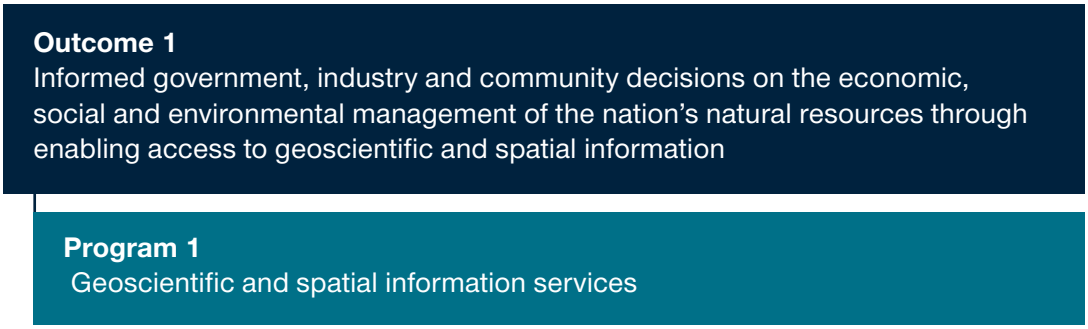


Figure 1.2 Geoscience Australia's outcome and program structure, 2021–22.

Report on performance

Introductory statement

As the accountable authority of Geoscience Australia, I am pleased to present the Annual Performance Statements of Geoscience Australia for 2021–22, as required under section 39(1)(a) of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act). It is my opinion that the Annual Performance Statements accurately reflect the performance of Geoscience Australia and comply with section 39(2) of the PGPA Act.

Dr James Johnson FTSE
Chief Executive Officer

14 September 2022

Performance reporting structure

The 2021–22 Annual Performance Statements report performance against the outcomes, performance measures and targets published in the 2021–22 Portfolio Budget Statements and the 2021–22 Corporate Plan.

Performance is assessed at the entity level against the suite of performance measures relevant to the 7 strategic priority areas. Table 2.1 illustrates alignment of Geoscience Australia's purpose with entity-level performance and the strategic priorities to be reported in these Annual Performance Statements.

Table 2.1 Geoscience Australia's alignment of purpose, entity performance, strategic priorities and outcomes in the 2021–22 Annual Performance Statements.

Purpose To be the trusted source of information on Australia's geology and geography for government, industry and community decision-making, and contribute to a safer, more prosperous and well-informed Australia	
Entity-level performance	Geoscience Australia's products and services are underpinned by quality science, are fit for purpose and meet stakeholder needs
Strategic priority	Building Australia's resources wealth to maximise benefits from our mineral and energy resources, now and into the future
Outcome	**1.1** Australia continues to be an attractive destination for investment in the resources sector
	1.2 Precompetitive geoscience data and information support new discoveries of a more diverse suite of energy and mineral resources
	1.3 The Exploring for the Future program improves the integration of minerals, energy and groundwater resource assessments to support industry and government decisions
Strategic priority	Supporting Australia's community safety to strengthen our resilience to the impact of hazards
Outcome	**2.1** Data on hazard, exposure and vulnerability for all decision-makers that is discoverable, accessible, interoperable, trustworthy and nationally consistent
	2.2 Stronger cross-sector capability development to leverage data for disaster risk management
	2.3 Modern operations-grade systems supported to inform time-critical decision-making and actions

Strategic priority	Securing Australia's water resources to optimise and sustain the use of our water resources	
Outcome	**3.1**	Australia's water systems are characterised and mapped in a nationally consistent way
	3.2	Enable productive and sustainable water management decisions and practices for government and businesses
Strategic priority	Managing Australia's marine jurisdictions to support sustainable use of our marine environment	
Outcome	**4.1**	Data describing Australia's maritime boundaries, the sea floor, and the coastal zone is discoverable, accessible, interoperable, and nationally consistent
	4.2	Develop marine-related capabilities to enable businesses to be more productive and profitable, and governments to make informed decisions
Strategic priority	Creating a location-enabled Australia to use detailed and fundamental geographic location information to develop the nation	
Outcome	**5.1**	Discoverable, accessible, interoperable, reusable and nationally consistent datasets that describe Australia's geography and support Australia's national interests
	5.2	Infrastructure enabling timely access to national spatial data and information for improved decision-making
	5.3	Develop location-enabled capabilities to enable businesses to be more productive and profitable, and governments to make informed decisions
Strategic priority	Enabling an informed Australia to equip government, industry and community with geoscience data and information to make informed decisions for our nation	
Outcome	**6.1**	Deliver high-quality, transparent, reproducible data, information and science that is relevant to users
	6.2	Support infrastructure to measure and monitor the environment
	6.3	Management of offshore petroleum data and samples for effective regulation of the industry
	6.4	Develop and maintain Earth science resources and programs for teachers
	6.5	Provide research support in the delivery of open-source geoscientific information
	6.6	Fit-for-purpose and sustainable digital science, solutions, platforms and tools to support better-practice science data management and delivery

Strategic priority	Trusted, sustainable and high performing to support and share our work globally to ensure Geoscience Australia's value is known, accessible and used	
Outcome	**7.1**	Sustainable organisational leadership, capability, culture and performance
	7.2	Deliberate and fit-for-purpose strategies, architectures, frameworks and processes
	7.3	Demonstrating our organisation's value through increasing our profile and reputation
	7.4	Maintain our reputation as the nation's trusted geoscience advisor in accessing land, air and marine environments
	7.5	Building capability and capacity to deliver science excellence

Summary of performance results

Against the suite of performance measures designed to demonstrate how Geoscience Australia has achieved its purpose, 35 of the 50 targets set in the 2021–22 Corporate Plan were reached or exceeded. Contributions to a more prosperous and informed Australia are exemplified by the discovery of the largest nickel sulphide discovery at Julimar near Perth using Geoscience Australia's Mineral Potential Mapper and the interrogation of data via the Data Discovery Portal and positioning data. Industry, government and communities were enabled by Geoscience Australia's tools, publications, research and strong advocacy for STEM. In turn, Geoscience Australia partnered diverse stakeholders to enable informed decision-making, innovation and discovery. Table 2.2 summarises the achievements of Geoscience Australia against the strategic priorities and in keeping with *Strategy 2028*.

Table 2.2 Summary of performance results.

Entity-level performance	No. of targets	2021–22 result summary[1]
Geoscience Australia's products and services are underpinned by quality science, are fit for purpose and meet stakeholder needs	1	Achieved

Strategic priority	No. of targets	2021–22 result summary[1]
Building Australia's resources wealth	9	8 targets achieved 1 target partially achieved
Supporting Australia's community safety	6	All targets achieved
Securing Australia's water resources	4	All targets partially achieved
Managing Australia's marine jurisdictions	4	All targets achieved
Creating a location-enabled Australia	6	4 targets achieved 2 targets partially achieved
Enabling an informed Australia	11	8 targets achieved 2 targets partially achieved 1 target not achieved
Trusted, sustainable and high performing	10	5 targets achieved 5 targets partially achieved
Total	**50**	**35 targets achieved** **14 targets partially achieved** **1 target not achieved**

1 Result summary definition:
Achieved: target requirements met or delivered
Partially achieved: significant or material progress towards target or requirements partially delivered
Not achieved: target requirements not met or not delivered.

Entity-level performance

Table 2.3 Entity-level performance.

Performance measure[2] Geoscience Australia's products and services are underpinned by quality science, are fit for purpose and meet stakeholder needs	
2021–22 target	Products and services adhere to Geoscience Australia's science principles, and stakeholders are satisfied with the information, data, products and services delivered
2021–22 result	Achieved Geoscience Australia continued to work to achieve the impacts and outcomes identified in its decadal strategy, *Strategy 2028.* We were guided by our Science Principles as we conducted our work. In 2021–22, Geoscience Australia commenced a comprehensive evaluation of the quality, relevance and impact of its science. Independent, external panels chaired by the Chief Scientist conducted science evaluations for 5 of the entity's 6 science impact areas. The final evaluation was conducted in July 2022. A preliminary thematic analysis of the first 5 evaluations indicated that Geoscience Australia is conducting excellent quality science that creates national benefit and impact. The final outcomes of the science evaluations will be reported next year. They will provide recommendations for guiding our science over the next 5 years to ensure our products and services continue to be fit for purpose, meet stakeholder needs and are underpinned by quality science.

2 Source: Portfolio Budget Statements 2021–22.

Building Australia's resources wealth

Performance against this strategic priority is reported in Table 2.4. The outcomes, performance measures and targets are sourced from the *Geoscience Australia Corporate Plan 2021–22 to 2024–25*.

Table 2.4 Strategic priority: Building Australia's resources wealth – performance.

Outcome 1
Australia continues to be an attractive destination for investment in the resources sector

Performance measure	Geoscience Australia's promotional products support industry exploration investment
2021–22 target	At least 5 tenements are taken up by industry in areas supported by Geoscience Australia's precompetitive programs per year, covering a total mineral endowment worth at least $70 billion Note: The $70 billion target spans the 7 years from the start of the decadal strategic plan in 2018 to the end of the 4-year targets in the 2021–22 Corporate Plan.
2021–22 result	Achieved Geoscience Australia sources data on tenement uptake from reputable state and territory databases and web mapping tools, company announcements, and through direct contact with industry representatives. More than 20 companies have taken up new tenements or reinvigorated their investment in tenements in the Northern Territory, Queensland, New South Wales, South Australia and Western Australia, covering more than 40,000 km^2, based on published Geoscience Australia data and reports. In November 2021, Chalice Mining Ltd announced the new Gonneville deposit within the Julimar nickel-copper-platinum group elements project near Perth, Western Australia, as the largest nickel sulphide discovery in more than 2 decades.
2021–22 target	*Australia's Identified Mineral Resources* and *Australia's Energy Commodity Resources* reports containing the national resource endowment are published annually
2021–22 result	Achieved Geoscience Australia released *Australia's Identified Mineral Resources 2021* report in February 2022 and published the assessment data for *Australia's Energy Commodity Resources* report in July 2022.

Performance measure	Authoritative information and technical advice on Australia's resource potential and the sector's activities are provided in accordance with Australian Government policy frameworks and within legislative timeframes
2021–22 target	Advice informing *Environment Protection and Biodiversity Conservation Act 1999* and Foreign Investment Review Board assessments are completed within legislative timeframes in 95% of cases
2021–22 result	Achieved A total of 106 Environment Protection and Biodiversity Conservation Act referrals were completed, with 96% within legislative timeframes. A total of 192 Foreign Investment Review Board referrals were also completed in keeping with agreed timeframes. Technical advice was provided in accordance with Australian Government policy frameworks for 4 Northern Australia Infrastructure Facility projects and 5 referrals from the Major Projects Facilitation Agency.

Outcome 2

Precompetitive geoscience data and information support new discoveries of a more diverse suite of energy and mineral resources

Performance measure	Australia's energy resource potential is progressively characterised and mapped
2021–22 target	Publication of methodology to assess Australia's residual oil resource potential utilising enhanced oil recovery techniques
2021–22 result	Achieved Geoscience Australia, in collaboration with CSIRO, published a carbon dioxide-enhanced oil recovery storage methodology for residual oil zones, which was tested and applied in the Cooper Basin, Central Australia. This culminated in industry support, with companies providing access to their data and samples for a more detailed future assessment.
2021–22 target	Publication of geological studies of the energy resource potential for 6 highly prospective onshore basins and 1 highly prospective offshore basin
2021–22 result	Partially achieved Significant progress was made toward this multi-year target, due for completion by June 2025. In 2021–22, Geoscience Australia published geological studies of the energy resource potential of 4 onshore basins and 2 offshore basins, including: • 3 scientific papers and 4 datasets on the frontier deep-water offshore Otway Basin, improving understanding of petroleum prospectivity and basin evolution. These were presented at the Australian Petroleum Production & Exploration Association (APPEA) conference • 2 precompetitive datasets from oil and gas samples taken from the Bedout Sub-basin in offshore Western Australia. Analysis of these samples has increased understanding of the complex petroleum system in this highly prospective basin • 2 reports on the Exploring for the Future program's Barkly region (Northern Territory) and Canning Basin (Western Australia), and seismic surveys and information about onshore basin geology and resource potential, to assist companies to target areas for future exploration • an extended abstract on trusted environmental and geological information for the Adavale Basin in Queensland. This was accepted and presented at the 2022 APPEA conference • a paper on applying carbon capture, use and storage to enhance hydrocarbon recovery in residual oil zones in the Eromanga Basin, which covers regions in South Australia, the Northern Territory, Queensland and New South Wales. This paper was presented at the 2022 APPEA conference. These reports improve understanding of prospectivity and encourage industry by reducing investment risk in the regions studied.

2021–22 target	Annual case study demonstrating industry uptake of precompetitive energy products and data to inform new investment activities
2021–22 result	Achieved **Case study:** Carrara Sub-basin **Description:** Release of geochemistry analysis and data from the Carrara 1 drill hole to inform new investment activities. **Success measures:** Industry incorporates Geoscience Australia's analysis and data into decision-making, resulting in the uptake of at least 1 tenement in the Carrara Sub-basin region. **Outcome:** Multiple companies acknowledged Geoscience Australia's data as supporting their decisions to apply for exploration tenements in the Carrara Sub-basin region. Most recently, in an Australian Securities Exchange announcement, Encounter Resources Ltd, which has entered a joint venture with South32, attributed exploration activities to precompetitive data published by Geoscience Australia. An Australian Research Council Linkage Program project has been established with industry, academia and the NT Government to build on the Carrara Sub-basin studies, focusing on basin-hosted energy and mineral resources.
Performance measure	New assessments of 4 strategically important mineral systems covering areas of unknown resource potential, including under cover
2021–22 target	Sediment-hosted base metals published
2021–22 result	Achieved Geoscience Australia published key national-scale data and information about sediment-hosted base metals, to support exploration, including: • 3 new estimates of geological and geophysical 3D surfaces, including a new depth-to-basement model • a national compilation database of geological setting, age and endowment of major sediment-hosted mineral deposits • Mt Isa-type lead-zinc mineral systems classification criteria • data-driven prospectivity modelling of sediment-hosted lead-zinc mineral systems and their critical raw materials • a national integrated resource assessment of Australian sediment-hosted base metals and associated critical minerals, in collaboration with the Geological Survey of Canada and the United States Geological Survey.

Performance measure	National-scale assessment of Australia's potential for hydrogen production, and geological storage of hydrogen and CO_2
2021–22 target	Publication of 3 national-scale maps of hydrogen production, and geological hydrogen and CO_2 storage potential
2021–22 result	Achieved This is a multi-year target. Geoscience Australia released the updated Hydrogen Economic Fairways Tool and published national-scale hydrogen production potential maps for wind, solar, hybrid wind and solar, and gas with carbon capture and storage. Geoscience Australia published a web service and an updated map of national geological storage suitability for CO_2 and hydrogen storage for the former Australian Government's Low Emissions Technology Statement and Long-Term Emissions Reduction Plan.

Outcome 3

The Exploring for the Future program improves the integration of minerals, energy and groundwater resource assessments to support industry and government decisions

Performance measure	New regional-scale geological studies of integrated minerals, energy and groundwater resource potential
2021–22 target	Publication of integrated resource assessments for 3 regions over 3 years (2021–2024)
2021–22 result	Achieved Geoscience Australia released more than 80 datasets and science products that were integrated into the Data Discovery Portal. These focused on the Darling–Curnamona–Delamerian, Barkly–Isa–Georgetown and Officer–Musgrave regions. They included an in-depth assessment of the resource potential of the Barkly–Isa–Georgetown region.

Summary and analysis

Throughout 2021–22, Geoscience Australia's precompetitive resource program continued to underpin major decisions made by industry and government.

Based on Geoscience Australia's data and science products, the pipeline of new mineral and energy (renewable and non-renewable) projects continued to grow, with increased resource exploration investment in under-explored regions, contributing to the ongoing growth of the sector.

New data and information from the Exploring for the Future program aided private sector investment for new exploration tenements across northern and southern Australia. For example, a major Australian energy company has committed to a multimillion-dollar exploration program in the South Nicholson region in the Northern Territory, and in New South Wales more than 20 new mineral exploration tenements have been issued to companies in regions where we have undertaken work.

Commercial development of a new resource can take many years. Through the Exploring for the Future program, Geoscience Australia continues to lay the foundation for further discoveries like Chalice Mining Ltd's significant deposit at Gonneville in the Julimar project about 70 km north-east of Perth. Announced this year, this is the first Tier 1 discovery globally for nickel, copper and platinum group elements in the last 20 years.

Geoscience Australia's geological studies, technical advice and innovative online applications, such as the Hydrogen Economic Fairways Tool, continue to influence the Australian Government's low-emissions policy agenda and commitment to net zero by 2050. Our work has informed the selection of hydrogen hubs and featured in the *State of Hydrogen 2021* report. It has also assisted the Australian Government's promotional work to attract international investment. The release of an updated carbon storage map also assisted the Australian Government to focus on early-mover, high-injectivity CO_2 storage areas for investment.

Geoscience Australia released more than 80 datasets and publications through the online eCat data and publications database and Data Discovery Portal. These, along with annual resource sector publications – *Australia's Identified Mineral Resources*, the *Australian Operating Mines Map* and *Australia's Energy Commodity Resources* – continue to be widely used to support and shape the development of Australian Government mining and energy policy. By providing consistent and comparable sources of data on the value of Australia's mineral and energy commodity inventories, annual production statistics and significant exploration results, these publications continue to enhance Australia's reputation as an attractive investment destination in a globally competitive resources sector.

Supporting Australia's community safety

Performance against this strategic priority is reported in Table 2.5. The outcomes, performance measures and targets are sourced from the *Geoscience Australia Corporate Plan 2021–22 to 2024–25*.

Table 2.5 Strategic priority: Supporting Australia's community safety – performance.

Outcome 1
Data on hazard, exposure and vulnerability for all decision-makers that is discoverable, accessible, interoperable, trustworthy and nationally consistent

Performance measure	Level of exposure data with 5 years currency
2021–22 target	5 datasets updated
2021–22 result	Achieved Geoscience Australia made available 10 new datasets, including power stations and substations data. These critical infrastructure datasets supported governments to plan for, respond to and recover from emergencies. The Prime Minister, senior bureaucrats and emergency managers used this information during flooding events in 2022 to better understand the extent of the floods and plan for what or who was under threat from flooding.
Performance measure	Hazard, exposure and vulnerability data that is accessible and discoverable
2021–22 target	National datasets are updated and published openly, reflecting advancements in best-practice, evidence-based science and observations from significant disasters
2021–22 result	Achieved Geoscience Australia released one product and 10 new exposure-related datasets during 2021–22. These new datasets and applications support evidence-informed planning, preparedness and response to natural hazards, and increase the resilience of communities and infrastructure.

Outcome 2

Stronger cross-sector capability development to leverage data for disaster risk management

Performance measure	Geoscience Australia's capability is routinely used in decision-making to be better prepared for, respond to and recover from the consequences of natural hazards
2021–22 target	New case studies demonstrating the application of Geoscience Australia products and services to deliver actionable information in collaboration with a range of sectors
2021–22 result	Achieved **Case study 1:** On-call support for Emergency Management Australia (EMA) **Description:** Geoscience Australia provided tailored hazard and exposure reports, derivative products and maps for flooding events along the east coast of Australia (December 2021 and February to April 2022) and for Tropical Cyclone Tiffany in Queensland (January 2022). **Success measures:** EMA and the National Recovery and Resilience Agency provide feedback on the effectiveness of Geoscience Australia's service after the high-risk weather season as part of the post-season debriefing process. Metrics from the performance evaluation include number of activations, response times, number of products supplied to support decision-making during a disaster and the effectiveness of the information supplied. These measures will directly inform Geoscience Australia's work program for service delivery ahead of the 2022–23 high-risk weather season and support the evaluation of the Commonwealth's recovery efforts for the disasters experienced during the 2021–22 season. **Outcome:** The Prime Minister, senior bureaucrats and emergency managers used this exposure report information during the 2022 floods and Tropical Cyclone Tiffany to better understand the natural hazards and plan for what and who was under threat from these hazards.

2021–22 result cont.

Case study 2: Natural Hazard Impact and Risk Service

Description: Geoscience Australia provided ongoing access to the Natural Hazard Impact and Risk Service to support state emergency management agencies during the high-risk weather season from November 2021 to April 2022.

Success measures: Feedback on the effectiveness of the service is expected after the high-risk weather season as part of the post-season debriefing process. Metrics from the performance evaluation include the number of products used to support decision-making during a disaster and the effectiveness of information.

Outcome: There was limited opportunity to demonstrate effectiveness in the 2021–22 high-risk weather season, since only 3 tropical cyclones made landfall and of those, only Cyclone Tiffany was Category 2 at landfall.

Feedback from the Department of Fire and Emergency Services in Western Australia showed that intelligence analysts had found the service to be effective for accurately estimating wind damage 12 to 24 hours in advance of a storm event. This enabled a proportionate response to the storm event.

Case study 3: The Australian Fire Danger Rating System (AFDRS) Ignition, Suppression and Impact (ISI) Index Research Prototype Evaluation Report 2021 (draft)

Description: Incorporation of Geoscience Australia's National Exposure Information System (NEXIS) data at the 1.5 km AFDRS scale, allowing identification of fine-scale, national information on population, property and infrastructure alongside the ISI indices.

Success measures: Geoscience Australia data is included in the report that is released.

Outcome: The evaluation report containing Geoscience Australia data was released to project partners in November 2021. The final evaluation report is due to be publicly released in September 2022 and incorporates feedback and research from the New South Wales Rural Fire Service, the Bureau of Meteorology and the Australasian Fire and Emergency Services Authorities Council. Geoscience Australia is working with stakeholders to explore how it can support the next step to operationalise the ISI index and to make risk products easily accessible to the emergency management community.

Outcome 3

Modern operations-grade systems supported to inform time-critical decision-making and actions

Performance measure	Availability of Digital Earth Australia Hotspots system for public access
2021–22 target	95%
2021–22 result	Achieved Digital Earth Australia (DEA) Hotspots sustained 100% uptime during the reporting period. RMIT Himawari-8 Hotspots was implemented in DEA Hotspots' secure environment, supplementing the range of available hotspot products to support emergency managers.

Performance measure	Availability of time-critical systems to support seismic alerting, nuclear monitoring and geomagnetic monitoring
2021–22 target	90%
2021–22 result	Achieved Time-critical systems supporting seismic alerting, nuclear monitoring and geomagnetic monitoring met or exceeded 90% data availability: • The Australian National Seismograph Network achieved 90% data availability. • The Australian-operated Comprehensive Nuclear-Test-Ban Treaty Organisation seismo-acoustic monitoring stations achieved 99.7% data availability. • The Australian geomagnetic observatory network achieved 98.5% data availability. Geoscience Australia's National Earthquake Alerts Centre (NEAC) continued real-time earthquake monitoring, detection, analysis and alerting, 24 hours a day, 7 days a week. NEAC achieved 100% availability for systems supporting 24/7 earthquake monitoring, analysis and alerting. NEAC rapidly notified the Australian Government National Situation Room (NSR) and other stakeholders of 32 Australian earthquakes of magnitude 3.5 or higher, including a magnitude 5.9 earthquake near Rawson, Victoria on 22 September 2021 that caused property damage as far afield as Melbourne. In 2021–22, NEAC detected, analysed and added 770 Australian earthquakes to the catalogue of Australian earthquakes and processed 71,505 felt reports. NEAC rapidly notified the NSR and other stakeholders of 132 international earthquakes above magnitude 6.0. In its functional role within the Joint Australian Tsunami Warning Centre, NEAC provided real-time alerts of 42 potentially tsunamigenic earthquakes, including 16 earthquakes that occurred within the Australian region.

Performance measure	Response to requests for activation of the International Disaster Charter or the Copernicus Emergency Management Service
2021–22 target	Response within 72 hours of a formal request for activation
2021–22 result	Achieved EMA requested activation of the European Union's Copernicus Emergency Management Service (CEMS) 6 times in the reporting period. All requests were actioned within 12 hours. These activations supported the response to flood events in 58 areas of interest across New South Wales, Queensland, the Northern Territory and South Australia. Activation periods ranged from 4 to 10 days and delivered a total of 77 flood products and 105 maps to support emergency responses. Flood delineation products delivered through CEMS contributed to briefing, impact assessment and disaster response functions of Australian and state government emergency managers.

Summary and analysis

Geoscience Australia continued to achieve annual targets in support of the Australian Climate Service and its customers, and the broader emergency management community. It also met or exceeded targets for the operation of earthquake observatories, networks and the NEAC, including providing alerts to the Australian Tsunami Warning System, detecting and reporting more than 770 notable events. DEA Hotspots operated at full availability for the entire reporting period, providing timely information about hotspots to emergency managers and critical infrastructure providers across Australia.

For an extended period during 2021–22 (November–May), the Australian continent experienced prolonged rainfall associated with a La Niña event. A sustained pattern of continual and extensive rainfall affected multiple states and territories, with some areas experiencing severe flooding and others that had already saturated catchments experiencing repeat floods. CEMS was activated to fill a critical gap in the situational awareness of events. The service drew on cloud-penetrating radar capability to acquire information about the areas of interest, which are often covered by thick clouds. Copernicus Sentinel-1 and other radar satellites can 'see' through cloud and rain, day and night, making them particularly useful for monitoring floods. Images acquired before and after flooding offer immediate information on the extent of inundation, while also supporting assessments of property and environmental damage. Depending on the overpass of satellites, CEMS can also provide timely views of flooding, capturing the extent of the water in the most affected areas.

Securing Australia's water resources

Performance against this strategic priority is reported in Table 2.6. The outcomes, performance measures and targets are sourced from the *Geoscience Australia Corporate Plan 2021–22 to 2024–25*.

Table 2.6 Strategic priority: Securing Australia's water resources – performance.

Outcome 1
Australia's water systems are characterised and mapped in a nationally consistent way

Performance measure	Australia's water systems are progressively characterised and mapped
2021–22 target	Publication of regional groundwater assessments in 6 basins and 3 geographic regions over 3 years
2021–22 result	Partially achieved The target was partially achieved as it is a multi-year target due for completion by June 2024. A specific target for 2021–22 was not defined. Geoscience Australia released 3 key datasets for the Great Artesian Basin to support responsible management of groundwater resources in 3 basins across Queensland, New South Wales, South Australia and the Northern Territory. Geoscience Australia compiled information on the geology, hydrogeology and water management for a state of knowledge report for the Upper Darling Basin to inform further data acquisition, which has commenced. Geoscience Australia released 36,665 line km of reprocessed and reinverted industry airborne electromagnetic data across the western part of the Musgrave Province in Western Australia to better understand the geology and palaeovalley groundwater system.
2021–22 target	Maps and data of national surface water body extent updated every 5 days 95% of the time
2021–22 result	Partially achieved The target was partially achieved as updated data was not available between December 2021 and February 2022 while the source Landsat data was upgraded to a new standard. Between July and November 2021, DEA Waterbodies achieved the target of updates every 5 days 100% of the time. Following the upgrade, DEA Waterbodies version 2 was released, returning the system to twice-weekly updates 100% of the time.

2021–22 target	Publication of a national map of groundwater systems that integrates available geoscience data and emerging technologies
2021–22 result	Partially achieved The target was partially achieved as it is a multi-year target due for completion by June 2024. A specific target for 2021–22 was not defined. Progress toward the 2024 target was achieved by commencing the compilation of groundwater system inventories and database systems that will underpin creation of the national map.

Outcome 2

Enable productive and sustainable water management decisions and practices for government and businesses

Performance measure	Products, advice and services are utilised and support governments and businesses
2021–22 target	Six new case studies (over 4 years) published, supporting sustainable water management
2021–22 result	Partially achieved **Case study:** Northern Basin Hydrometric Networks and Remote Sensing Program **Description:** The Northern Basin Hydrometric and Remote Sensing Program is a collaboration with the former Department of Agriculture, Water and the Environment (now the Department of Climate Change, Energy, the Environment and Water), the Murray–Darling Basin Authority, Queensland and New South Wales state governments and the Bureau of Meteorology. Geoscience Australia is developing and delivering remote sensing tools that provide up-to-date information about surface water management in the northern Murray–Darling Basin. **Success measures:** • Access to and training for project partners on using higher resolution data better supports their regulatory and water compliance needs. • Satellite imagery and elevation data are combined to provide regular updates on water volumes in water bodies in the northern Murray–Darling Basin. **Outcome**: The target was partially achieved as only a prototype for water volume, using integrated elevation data, had been delivered to project partners for review at the time of this report. Successful use of high-resolution Planet data has addressed many of the project partners' regulatory and water compliance needs. New information extracted from satellite data has provided improved water surface and volume measurements and allowed monitoring of water bodies of 0.5–1 ha for natural resource compliance across the northern basin.

Summary and analysis

Geoscience Australia's ongoing work in the Great Artesian Basin has culminated in basin-wide geological and hydrogeological data and information that are integral to assessing the status of groundwater resources over 1.7 million km^2, or 22% of Australia's landmass. These outputs contribute to the Great Artesian Basin Strategic Management Plan's Principle 6 – Information and knowledge generation ensure that accurate, timely and readily accessible information supports good management of the Great Artesian Basin. Further groundwater data acquisition is underway in 2 regional groundwater assessments in the Upper Darling (New South Wales) and Musgrave Province (Western Australia and the Northern Territory). The new data will assist in identifying potable groundwater resources to enhance water security for future agricultural development and community supply.

The DEA program continues to deliver insights into water in the landscape. This includes through collaborations with the Northern Basin Hydrometric Networks and Remote Sensing Program, run by the Murray–Darling Basin Authority. This program has provided the mechanism for Geoscience Australia to develop remote sensing tools to improve information about the location and volumes of surface water. Although the program is behind schedule, and project partners were unable to fully assess the water volume prototype provided by Geoscience Australia before the end of financial year, the prototype has already allowed partners to monitor waterbodies for compliance purposes across the northern basin.

The water resources program is increasingly focusing on national and regional-scale water resource assessments. The program uses new technologies, workflows and integrated geoscience approaches, including satellite data, to support informed decision-making by government, the community and industry. There has been significant progress toward achieving the above target to publish a national map of groundwater systems, and complete regional groundwater assessments in 6 basins and 3 geographic regions. As these were originally set as multi-year targets, they have been noted as partially achieved this year and remain on track for delivery by 2024 and 2025.

Geoscience Australia continues to deliver high-quality data and information on Australia's groundwater systems to support more effective and efficient water management decisions by regulators. This includes improvements to monitoring surface water in the northern Murray–Darling Basin to aid with compliance activities. Through the Exploring for the Future program, Geoscience Australia is developing national groundwater information inventories and regional hydrogeology interpretations to develop an integrated understanding of Australia's groundwater systems. This new information forms the basis for collating and curating consistent groundwater information across the country to support the coordination of water security across state and territory jurisdictions.

Managing Australia's marine jurisdictions

Performance against this strategic priority is reported in Table 2.7. The outcomes, performance measures and targets are sourced from the *Geoscience Australia Corporate Plan 2021–22 to 2024–25*.

Table 2.7 Strategic priority: Managing Australia's marine jurisdictions – performance.

Outcome 1
Data describing Australia's maritime boundaries, the sea floor and the coastal zone is discoverable, accessible, interoperable and nationally consistent

Performance measure	Percentage of new seabed and coastal landform data made publicly available within 6 weeks of receipt of a standards-compliant dataset
2021–22 target	100%
2021–22 result	Achieved During 2021–22, Geoscience Australia published 38 bathymetry datasets via the AusSeabed Marine Data Portal, all within the target timeframe. These include data provided by AusSeabed partners: the Australian Antarctic Division, CSIRO Marine National Facility and the Australian Institute of Marine Science. Geoscience Australia released the first high-resolution seamless land-sea elevation model for Bass Strait using government-held bathymetric data.
Performance measure	Availability of maritime boundaries web services to support marine planning and administration
2021–22 target	90% uptime of maritime boundaries web services on Australian Marine Spatial Information System (AMSIS) platform
2021–22 result	Achieved During 2021–22, maritime boundaries web services were available 100% of the time through AMSIS.

2021–22 target	Maritime boundaries data accessible 95% of the time
2021–22 result	Achieved During 2021–22, following publication of updates to reflect changed arrangements between Australia and Timor-Leste, all maritime boundaries data was publicly accessible 100% of the time. Geoscience Australia continues to improve the accessibility of information about Australia's maritime boundaries through AMSIS, allowing efficient and timely customisation of information to support government decisions. This includes supporting the establishment of an offshore renewable energy industry in Bass Strait and managing conflicts between activities in this high-use area.

Outcome 2

Develop marine-related capabilities to enable businesses to be more productive and profitable, and governments to make informed decisions

Performance measure	Geoscience Australia's capability in marine geoscience is used by governments and businesses in decision-making
2021–22 target	Annual case studies demonstrating new capabilities and use and impact of Geoscience Australia's products, advice and services
2021–22 result	Achieved

Case study 1: National areas of interest (AOI)

Description: AusSeabed and the National Environmental Science Program (NESP) are enhancing collaboration in the sector by developing a prioritisation framework for seabed surveys and updating the 2017 AusSeabed national priority map. This will support a more comprehensive spatial understanding of AOI for seabed surveys across Australian sectors and communities.

Success measures:

- An increase in the number and diversity of organisations submitting AOI from 10 to 25, and from government-only to all 3 sectors (government, academia and industry).
- Key partners, including the Australian Hydrographic Office, the Marine National Facility and Parks Australia, use the enhanced information to plan their acquisition programs and ensure they target areas of highest value for Australians. Benefits will be measured by seeking feedback from these key partners.
- Successful implementation of the prioritisation framework will be demonstrated in its use by NESP and partner organisations to prioritise future surveys in a consistent and repeatable way, such as for the NESP 2022–23 research plans.

Outcome:

Through the AusSeabed Marine Data Portal, Geoscience Australia has implemented a prioritisation framework for seabed surveys and worked with partners to begin building an updated national picture of spatial and thematic AOI.

As of 30 June 2022, 26 organisations are submitting AOI. These span Commonwealth entities, state and territory governments, universities, Indigenous corporations and the tourism sector.

The Australian Hydrographic Office is actively using the online tool to share information on future charting surveys. Parks Australia is also working towards identifying AOI within Australian marine parks.

Collectively, the information within the national AOI tool is supporting forward planning for seabed surveys and creating new opportunities for collaboration, particularly with industry.

Case study 2: DEA Coastlines web service

Description: DEA Coastlines combines satellite data with tidal modelling to map the typical location of the Australian coastline at mean sea level for every year since 1988. Resulting shorelines and detailed rates of change show how beaches, sand spits, river mouths and tidal flats have grown and eroded over time.

Success measures: Uptake and advocacy of DEA products and services by businesses and decision-makers.

Outcome:

The Insurance Council of Australia has recommended that DEA Coastlines be used for continental-scale coastal vulnerability and risk assessments in Australia.

Following this recommendation, in March 2022 CoreLogic released its Coastal Risk Scores for Financial Risk Assessment report, which uses DEA Coastlines as the fundamental data source underpinning a method for property risk assessment in coastal regions.

Case study 3: Marine planning framework for Australia's new offshore renewable energy industry

Description: Geoscience Australia worked with the then Department of Industry, Science, Energy and Resources (now the Department of Industry, Science and Resources) to establish the marine planning framework, including information to underpin timely and accurate government and industry decision-making, for Australia's new offshore renewable energy industry.

Success measures:

- Information is available to support interdepartmental and ministerial discussions on government priorities in the marine jurisdiction.
- Marine planning information is delivered in a timely manner, and is accessible and understood by non-technical users.
- Government releases areas that are viable for development and that limit the impact on existing industries.

Outcome:

Geoscience Australia assisted the department to understand priority declaration areas for offshore renewable energy programs. Geoscience Australia worked with responsible agencies to provide information that reflected their priorities, to underpin interdepartmental planning discussions. These included existing allocated rights and restrictions to offshore wind development; the extent of offshore resources; and current patterns of offshore use, such as from shipping traffic.

Geoscience Australia also coordinated the delivery of precompetitive information, including the extension of onshore wind models, to cover offshore areas to improve understanding of potential wind resources.

Summary and analysis

Australia's marine resources continue to play an important role in the nation's economy, society and security. The need for reliable and easily accessible data that defines and describes Australia's marine jurisdiction remains important to civil maritime security, enabling continued growth of the Blue Economy and informing sustainable use of marine resources. Geoscience Australia continued to improve the availability and reliability of geospatial data covering Australia's marine jurisdiction through the AMSIS and AusSeabed portals.

In 2021–22, Geoscience Australia supported marine spatial planning for the emerging offshore renewable energy sector and delivered data to inform management of protected marine areas. The DEA Coastlines web service continued to have wide uptake and has been used by the insurance industry to quantify the financial impact of sea-level rise on properties nationwide.

Australia's approaches to defining its maritime boundaries continued to gain international credibility in 2021–22. Greater certainty on the location of Australia's boundaries is reducing risk for offshore investment. Many Australian Government entities continue to depend on Geoscience Australia's information and advice for their operations, and to develop and implement policy. Geoscience Australia's advice supports management of the offshore energy sector, safe navigation, monitoring of Australian marine parks, and on-water activities.

Creating a location-enabled Australia

Performance against this strategic priority is reported in Table 2.8. The outcomes, performance measures and targets are sourced from the *Geoscience Australia Corporate Plan 2021–22 to 2024–25*.

Table 2.8 Strategic priority: Creating a location-enabled Australia – performance.

Outcome 1
Discoverable, accessible, interoperable, reusable and nationally consistent datasets that describe Australia's geography and support Australia's national interests

Performance measure	Location-enabled information generated through Geoscience Australia programs can be consumed by decision-makers, and is open, published and discoverable
2021–22 target	All publicly releasable spatial data is discoverable, with an increase of 5 datasets per year
2021–22 result	Achieved Geoscience Australia achieved an annual increase of 8 datasets, including datasets for electricity transmission lines, power stations and transmission substations. This publicly available critical infrastructure data will support research, planning and decision-making including responses to and recovery from natural disasters.

Outcome 2

Infrastructure enabling timely access to national spatial data and information for improved decision-making

Performance measure	Authoritative, trusted positioning data services
2021–22 target	Data services meet national and international standards
2021–22 result	Achieved Geoscience Australia contributes: • 38 of the 512 GNSS sites that form the International GNSS Service (IGS) network • 2 of the 10 highest-performing satellite laser ranging stations to the International Laser Ranging Service • 3 high-performing Very Long Baseline Interferometry (VLBI) stations to the International VLBI Service. All data was delivered in line with national and international geodetic standards to international data centres that analyse and archive the data. Geoscience Australia leads progress on the development of the Geodesy Markup Language (GeodesyML) through engagement with other international geodetic organisations and standards bodies. GeodesyML is making geodetic data more findable, accessible, interoperable and reusable. The role of IGS Analysis Center Coordinator (IGS ACC) is shared between Geoscience Australia and Massachusetts Institute of Technology. Working together, information from GNSS analysis centres around the world is developed into a combined product that is used by industry, government and academia for myriad societal, environmental and economic activities. Geoscience Australia provides a range of tools and services on its website and through GitHub, which provides authoritative methods for working with coordinates in the Australian Geospatial Reference System.

Performance measure	Data availability from the national positioning infrastructure networks
2021–22 target	95% uptime
2021–22 result	Achieved The Australian Regional GNSS Network achieved on average 95% station availability during 2021–22. In addition, 77% of the stations met or exceeded 95% data availability.

Performance measure	Build the infrastructure and systems to deliver trusted and 10 cm accuracy positioning service across Australia and its maritime zones
2021–22 target	(Target commencing in 2022–23)
2021–22 result	Status update The Australia – New Zealand SBAS known as SouthPAN is on track for initial operational capability in 2022–23.
Performance measure	Build the infrastructure and systems to deliver (3–5) cm accuracy of positioning services for areas with mobile phone coverage across the continent
2021–22 target	Increase of 100 stations
2021–22 result	Partially achieved The target was partially achieved due to delays outside the reasonable control of Geoscience Australia, such as pandemic-related lockdowns and travel restrictions. Geoscience Australia continued to increase the number of stations contributing data to the National Positioning Infrastructure Capability. The network consists of 667 reference stations, an increase of 61 stations in 2021–22. Construction of the final 40 stations will be completed by June 2023.
Performance measure	Build and operate the Digital Atlas of Australia, including the NationalMap
2021–22 target	Initial operational capability
2021–22 result	Partially achieved The target was partially achieved, with the Digital Atlas of Australia in the design phase; initial operational capability has not yet been achieved. The prototype of the Digital Atlas is planned for public release in early 2023. The NationalMap, managed by Geoscience Australia, continued to help with data-driven decision-making by providing access and visualisation of open spatial data published and catalogued on data.gov.au, and state and territory data catalogues.

Outcome 3

Develop location-enabled capabilities to enable businesses to be more productive and profitable, and governments to make informed decisions

Performance measure	Geoscience Australia's capabilities and national spatial leadership mechanisms provide value to business and government
2021–22 target	Annual case studies demonstrating incorporation of Geoscience Australia's capability in business operations, government operations and programs, and efficiency of cross-government operations
2021–22 result	Achieved

Case Study 1: Elvis Elevation and Depth

Description: Geoscience Australia's Elvis infrastructure is a cloud-based system that allows users to easily discover elevation and bathymetry data for an area of interest. Data can be quickly accessed through Elvis to support efficient planning, research and decision-making by government, industry and research communities.

Success measures:

- Elvis infrastructure users and data downloads continue to grow compared to the previous year.
- The data coverage available through Elvis infrastructure continues to grow compared to the previous year.

Outcome: 2021–22 saw an 11% increase in data orders (126,000) by more than 3,000 unique users per month, supporting an estimated yearly contribution of more than $500 million to the Australian economy. The Victorian Government provided a significant amount of elevation data from across the state, which is now available through Elvis.

Case Study 2: Location Inter-Departmental Committee (IDC)

Description: The Location IDC provides a strategic, joined-up approach to the policy and governance of Australian Government location data. Geoscience Australia chairs the Location IDC.

Success measures:

- Through Geoscience Australia's leadership and drive, the Location IDC continues to grow to include representation from most Australian Government agencies dealing with location-based data.
- Geoscience Australia's leadership and drive, and the work of the Location IDC, have improved location data governance and policy across the Australian Government.

Outcome: Australian Government participation in the Location IDC continues to grow, with 20 agencies now represented. This growth boosts the depth and breadth of location data policy and governance expertise to progress location-based issues common across the Australian Government.

Summary and analysis

Location-based data and technologies were used for decision-making by business, citizens and government agencies during 2021–22. Demand continued to increase for easy-to-use, openly available, reliable, national coverage of Earth observation and digital mapping data describing Australia's geography, as well as high-precision positioning information from satellites. Geoscience Australia is developing the next generation of the Australian Government's location-based data infrastructure through the Digital Atlas of Australia. This free, secure, interactive geospatial platform will enable users to access, download and personalise content from a rich and authoritative suite of national data about Australia's population, economy, employment, infrastructure, health, land and environment. The Digital Atlas is currently in the design phase.

The programs supporting improved positioning information from satellite navigation systems and greater take-up of Earth observation information in Australia and Africa made good progress. However, maintaining network availability for remotely located stations was impacted by COVID-19 restrictions. Geoscience Australia formally transitioned Digital Earth Africa to Africa, allowing in-continent management and sustainment of the capability and allowing African countries to openly use Earth observations data. New datasets for land cover, wetlands and coastlines were released and significant progress was made to compile an authoritative state borders dataset and digital historic aerial photography.

Geoscience Australia has driven leadership and collaboration on policy and governance of Australian Government location data as the Chair of the Location IDC. The Location IDC grew in 2021–22, with 20 Australian Government agencies represented.

Geoscience Australia's continued strong leadership and achievements in the program have benefited governments and business. States and territories participating in collaborative governance benefited financially, reducing the cost of managing and delivering data to business.

Enabling an informed Australia

Performance against this strategic priority is reported in Table 2.9. The outcomes, performance measures and targets are sourced from the *Geoscience Australia Corporate Plan 2021–22 to 2024–25*.

Table 2.9 Strategic priority: Enabling an informed Australia – performance.

Outcome 1
Deliver high-quality, transparent, reproducible data, information and science that is relevant to users

Performance measure	Embedding the use of data standards to create accurate, appropriate, fit-for-purpose and quality data products that are interoperable and reusable
2021–22 target	Annual case studies demonstrating fit-for-purpose and quality data products that demonstrate use of data standards and supplementary information of data certainty, accuracy and quality
2021–22 result	Achieved **Case study 1:** Data releases for destructive lab analyses of core samples **Description:** Geoscience Australia produces reports on destructive lab analyses of core samples. These data releases were published along with detailed reports on lab methods and sample context (destructive analysis reports) that provide additional information on data standards, accuracy and quality. **Success measures:** Destructive analysis reports have been published with 100% of lab data releases. This ensures data is accurate, fit for purpose and easy to interpret. **Outcome:** In 2021–22, destructive analysis reports were published with 100% of relevant lab releases. This increased confidence in Geoscience Australia data due to greater transparency regarding lab methods and sample context, which increases the quality and reusability of the data products. **Case study 2:** Marine data quality assurance process **Description:** Geoscience Australia has developed software to apply a consistent quality assurance process and improved metadata templates as part of the AusSeabed program. **Success measures:** Software is created and released that provides quality assurance and quality control for community datasets. This software embeds the use of data standards to ensure data quality and accuracy. **Outcome:** Software produced by Geoscience Australia has improved data interoperability and reliability by enabling users to rapidly process their data using a well-documented, consistent method that is based on best-practice data standards.

Performance measure	Increased use of Geoscience Australia's capability and engagement of stakeholders in our products and services
2021–22 target	Annual case studies demonstrating breadth of capability supporting users and contributing to government decisions
2021–22 result	Achieved

Case study 1: Point cloud processing pipeline

Description: Geoscience Australia has converted its point clouds and gridded geophysical archive data to a cloud-optimised format, enabling the data to be visualised online in 3D.

Success measures: All stakeholders and interested parties can visualise and use Australian Light Detection and Ranging (LiDAR) data in 3D, enabling more people to access and engage with this information. This contributed to a 25% increase in page views of the 3D pages in the Geoscience Australia Portal in 2021–22 compared to 2020–21.

Outcome: Visualised point cloud data is openly available through Geoscience Australia's portals.

Case study 2: Deposit Summary Report tool

Description: Geoscience Australia has developed a dynamic reporting tool that synthesises information about mineral deposits in an easily accessible digital format. Previously, this information would be presented in static reports that were potentially incomplete and would become out of date.

Success measures: Increased use of reports following implementation of dynamic reporting tool.

Outcome: The Deposit Summary Report tool has seen an average increase in usage of 137% per month since its release in March 2022. Stakeholders are using easily accessible and up-to-date mineral deposits information to inform decisions.

Outcome 2
Support infrastructure to measure and monitor the environment

Performance measure	Our ground-based satellite stations continue to capture data of national and international significance
2021–22 target	Ongoing management and operation of ground stations to support capture and delivery of data
2021–22 result	Achieved Effective management of the Alice Springs satellite ground station enabled data to be captured from 98.9% of scheduled satellite passes. Mission support for the new Landsat 9 mission, launched in late 2021, was added to the Alice Springs ground station, which forms part of the Landsat ground station network.

Outcome 3
Management of offshore petroleum data and samples for effective regulation of the industry

Performance measure	Compliance with the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* requirements
2021–22 target	Data and samples are assessed for compliance, stored and backed up securely within regulatory timeframes in 95% of cases
2021–22 result	Achieved Geoscience Australia completed cataloguing and compliance tasks for petroleum data and samples submitted under the Offshore Petroleum and Greenhouse Gas Storage Act within regulatory timeframes in 98% of cases.

Outcome 4
Develop and maintain Earth science resources and programs for teachers

Performance measure	Engage and develop new resources for all schools and teachers, including through school visits and virtual classrooms
2021–22 target	Develop 5 new resources for teachers each year, and lead teacher professional development events
2021–22 result	Achieved Geoscience Australia developed 7 new resources for teachers, led 2 teacher professional development events and co-hosted 2 events.

2021–22 target	Host at least 100 annual school visits and virtual engagements, and produce a bimonthly newsletter to the Australian education community
2021–22 result	Partially achieved The target was partially achieved as bookings for onsite school visits were significantly affected by COVID-19. Geoscience Australia hosted 68 onsite and virtual engagements. • Onsite school visits: 61 visits (2,452 students) • Virtual experiences: 7 events (7,982 students) • Other outreach events: National Science Week, with 3,400 viewers/participants for education content • Published 6 education newsletters to the Australian education community
2021–22 target	Review of existing programs with engagement of remote, rural and Indigenous schools
2021–22 result	Not achieved Delays in securing a suitable project officer meant this work did not commence in 2021–22. This issue has been resolved and the review will be completed by December 2022.

Outcome 5

Provide research support in the delivery of open-source geoscientific information

Performance measure	Strengthen Australia's Earth science literacy and engagement with national geoscience information and collections
2021–22 target	Expand Geoscience Australia's National Mineral and Fossil Collection and collaborate with other holders of national geoscience collections, and establish a museum-quality database
2021–22 result	Achieved More than 4,500 new specimens were added to the National Mineral and Fossil Collection. Sources included researcher submissions, donations and the long-term loan of the University of Canberra geoscience collection. More than 62,000 copies of Geoscience Australia's historical publications digitised from the library collection were downloaded from the open-access repository, eCat. Installation of a dedicated museum collection management database continued, including the migration of 2 major datasets. Several new digital products, conference presentations and new loans/exhibitions were produced, and media interviews were conducted.

2021–22 target	Coordinate public events to increase the awareness of the value of Earth sciences to all Australians
2021–22 result	Achieved Around 31,000 people participated in activities relating to 11 events for Earth Science Week. This included the highest ever participation rate in a video conference for the Education Team (7,128), a new record for attendance at a Wednesday Seminar (312) and 378 social media followers gained during a 16-day campaign (average 45 new followers per fortnight). Around 6,000 people participated in activities relating to 5 events for National Science Week. All events were held online as Canberra entered a COVID-19 lockdown less than 48 hours before the start of National Science Week. Around 3,440 people attended Wednesday Seminars presented by 43 Geoscience Australia staff or guest speakers. Presenters shared current knowledge of a diverse range of Earth sciences, including seabed mapping, geophysics, hydrogen, geodesy, carbon storage, Geoscience Australia's *Science Strategy 2028*, the Perth Canyon and Icelandic volcanoes.

Outcome 6

Fit-for-purpose and sustainable digital science, solutions, platforms and tools to support better practice science data management and delivery

Performance measure	Improve the design, security, sustainability and strategic investment in digital science systems and platforms
2021–22 target	Prioritise and undertake design reviews of proposed or existing digital solutions, platforms and tools
2021–22 result	Partially achieved The target was partially achieved as resource shortages meant the migration of the database to the new cloud environment that had been prioritised for 2021–22 will only be completed in 2022–23. Geoscience Australia prioritised and conducted reviews and enhancements of critical cloud, business process automation, database and publication solutions, with the following outcomes:

2021–22 result cont.	• Publication tool: Geoscience Australia's internal tool for publishing products was extended to enable the publication and release of documents (in addition to data) and support additional reviewers during the publication process. • Database: a review of database needs identified an opportunity to uplift Oracle database capability and reduce costs by moving databases to the cloud. A cloud database architecture was developed and security was reviewed. • Amazon Web Services cloud platform: an operations review resulted in improved management of cloud environments. A security review identified additional cloud-native security controls for implementation. • Business process automation: stability issues were identified with the business process automation platform that underpins corporate workflows. Remediation work was undertaken to stabilise the platform and improve development practices. This has reduced the number of errors, and increased performance and reuse.
Performance measure	Positive engagement with digital platforms
2021–22 target	Annual review of stakeholder activity with digital platforms, and user stories of engagement with our platforms
2021–22 result	Achieved As part of the Exploring for the Future program, enhancements and new functionality were added to the Geoscience Australia Portal, resulting in a 58% increase in unique users compared to 2020–21. Geoscience Australia's Corporate Data Store showed a dramatic increase in activity from the previous year, which is consistent with positive engagement with the platform. There were more than 7.5 million hits on the system and around 26 terabytes of data and/or products were downloaded by 9,370 discrete users during 2021–22. This compares to 3.1 million hits and approximately 21 terabytes downloaded by 3,383 discrete users in 2020–21. Geoscience Australia implemented usage monitoring for the Geophysical Archive Data Delivery System. This provides on-demand statistical analysis showing which datasets are downloaded over any period. The solution was released in June 2022 and will increase visibility of user engagement in future reporting periods.

Summary and analysis

In 2021–22, Geoscience Australia significantly improved the functionality of its digital platforms and the discoverability of products and data. This resulted in a 58% increase in unique users of the Geoscience Australia Portal and an additional 5 terabytes of data downloaded from the Corporate Data Store compared to 2020–21.

Releases of new products also improved the availability and quality of information and data. For example, releasing a dynamic, digital version of deposit summaries to replace previous static reports has seen a 137% increase in usage of this information per month.

Geoscience Australia has continued to improve the digital science systems and platforms that underpin the delivery of high-value data and services to enable an informed Australia. During 2021–22, reviews and enhancements of critical cloud, business process automation, database and publication solutions were conducted. The difficulty of engaging people with the right skills means the final migration of databases to the new cloud environment will only be completed in 2022–23.

We have continued to acquire and manage data from a range of sources, including satellites, observatories and laboratory instruments, and through stakeholder collaborations including with Australian, state and territory governments, academia and industry. Data and samples can be integrated to build models of the continent, Antarctic and island territories, and surrounding oceans. They inform decision-making for future environmental and resource planning.

Geoscience Australia is committed to making data openly available, discoverable and accessible through fit-for-purpose technologies in alignment with the Australian Government's open data policy, Geoscience Australia's *Science Strategy 2028* and *Digital Strategy 2019–22*.

In-person community engagement activities were limited in 2021–22 due to COVID-19 restrictions. Although there were fewer school visits to our Education Centre than projected, online and digital engagement increased significantly in this time. This included through holding online public seminars and providing online resources for students, teachers and the public.

A notable achievement during these challenging times was the involvement of more than 31,000 participants in Geoscience Australia's Earth Science Week program. Activities aligned with commitments under Geoscience Australia's *Strategy 2028*, *Diversity and Inclusion Strategy* and *Innovate Reconciliation Action Plan*. The planned review of existing programs that engage with remote, rural and Indigenous schools, which was delayed due to challenges in recruiting a suitable project officer, will be completed by December 2022.

Trusted, sustainable and high performing

Performance against this strategic priority is reported in Table 2.10. The outcomes, performance measures and targets are sourced from the *Geoscience Australia Corporate Plan 2021–22 to 2024–25*.

Table 2.10 Strategic priority: Trusted, sustainable and high performing – performance.

Outcome 1
Sustainable organisational leadership, capability, culture and performance

Performance measure	Develop organisational capabilities and leadership and build a culture to support strategic outcomes
2021–22 target	Establish and embed people strategies
2021–22 result	Achieved Geoscience Australia implemented a range of people strategies covering mental health, diversity and inclusion, family and domestic violence, and breastfeeding: • Actions to uplift mental health capability under the *Mental Health Strategy 2023* continued in 2021–22, including the implementation of tailored and interactive workshops facilitated by a psychologist to enhance and support staff self-awareness and knowledge of mental health and wellbeing. • Geoscience Australia continued to implement its *Diversity and Inclusion Strategy*, which saw an evaluation of the organisation's inclusive culture and proactive actions to improve gender equality. A suite of new policy, procedures and workforce initiatives were developed and implemented. • Geoscience Australia implemented a new Family and Domestic Violence Policy and Procedure and launched a new family room to provide a safe workspace for employees experiencing family and domestic violence to work with their children present. • The organisation gained accreditation as a breastfeeding-friendly workplace.
2021–22 target	Achieve one Science in Australia Gender Equity (SAGE) Cygnet Award
2021–22 result	Partially achieved The target was partially achieved as the application for the SAGE Cygnet Award was still being assessed at the end of 2021–22. Geoscience Australia submitted its application for the first SAGE Cygnet Award under the inclusive culture theme on 27 May 2022. The assessment process takes 10 to 12 weeks.

2021–22 target	APS Census engagement score >70%
2021–22 result	Achieved Geoscience Australia achieved a 77% response rate to the APS Employee Census in 2021 and an engagement score of 76%. Senior leaders received recommendations to promote continued engagement from our people, based on an analysis of feedback from the 2021 Census. In 2022, Geoscience Australia achieved an 87% response rate. The results will be analysed following their release.

Outcome 2

Deliberate and fit-for-purpose strategies, architectures, frameworks and processes

Performance measure	Fit-for-purpose strategies, architectures, frameworks and processes to support the organisation to meet high standards of governance, performance and accountability through effective engagement and provision of guidance
2021–22 target	Enterprise strategies, architectures, frameworks and processes for our operating environment are developed, implemented and reviewed
2021–22 result	Partially achieved The target was only partially achieved due to delays in implementing the Enterprise Service Management Catalogue and improvements to user access. Both will be completed in 2022–23. Measures to improve Geoscience Australia's operating environment during 2021–22 included: • implementing a streamlined eInvoicing solution, resulting in 100% of eligible eInvoices being paid within 5 days, in compliance with Australian Government policy • implementing an Enterprise Service Management Catalogue, supported by an Enterprise Service Management Tool, to improve the efficiency of corporate operations, mitigate risk, and facilitate strategic planning to support business and end user needs • delivering a Technology Roadmap and Investment Plan to provide a framework for ICT infrastructure planning and investment for the next several years

2021–22 result cont.	• extending Essential Eight monitoring and reporting across cloud services and environments, and conducting a best-practice Amazon Web Services security review, consistent with the organisation's Security Strategy • commencing improvements to managing user access to streamline processes and increase consistency between staff and contractors • enhancing the reusable architecture that supports Geoscience Australia's web portals to allow new portals to be established more quickly and to be dynamically branded using personas. This platform supports more than 20 science portals from a common codebase and architecture, including Exploring for the Future, DEA Hotspots, Earthquakes@GA and the Australian Exposure Information Platform.

Outcome 3

Demonstrating our organisation's value through increasing our profile and reputation

Performance measure	Geoscience Australia is supported by a communications framework
2021–22 target	Framework developed
2021–22 result	Partially achieved An initial draft of the Communication Framework has been developed. It will be completed and implemented in 2022–23. Concurrently, work is in progress on a brand strategy, sponsorship policy and event framework. These documents support the overall communication direction and contribute to a more comprehensive strategic approach to communication across the organisation.

Outcome 4

Maintain reputation as the nation's trusted geoscience advisor in accessing land, air and marine environments

Performance measure	Enable and continuously improve Geoscience Australia's better-practice engagement with remote, rural and Indigenous communities, including by protecting Indigenous cultural heritage
2021–22 target	Advise and support planned field programs and facilitate the return of data to stakeholders involved in Geoscience Australia's field program data acquisition
2021–22 result	Partially achieved Due to COVID-19-related delays in engaging First Nations organisations and other community members, the target was only partially achieved. Their input is crucial to ensure the methods used to provide data are appropriate. Some projects are underway but not yet complete. Advice and support were provided to field programs. The Geoscience Knowledge Sharing project is underway and its aims include progressing the return of data. Negotiations are underway with 3 First Nations organisations to facilitate data sharing to their communities. Discussions have also begun with a further 2 organisations in relation to including Earth sciences content in their respective visitor centres.
2021–22 target	Develop tools, frameworks and training materials for best-practice engagement
2021–22 result	Achieved Geoscience Australia delivered 10 field technique animations that show stakeholders, such as landowners, how geoscientific surveys are undertaken to align with best practice, and the effect on their land.

Outcome 5

Building capability and capacity to delivery science excellence

Performance measure	Ensure the quality, relevance and sustainability of Geoscience Australia's science by developing and implementing recommendations following an evaluation of Geoscience Australia's scientific capability and capacity
2021–22 target	Design and conduct Science Evaluations
2021–22 result	Partially achieved The target was only partially achieved because the final science evaluation was delayed until July 2022 due to capacity constraints arising from Geoscience Australia's role in organising a large international conference. The target will be achieved once this final evaluation has been completed. The final report is on track for delivery in early 2023. Three science 'deep dives' were completed on digital science and capability; science capability and capacity mapping; and thematic stakeholder mapping. Science evaluations were conducted for 5 of the 6 science impact areas in 2021–22, with the final evaluation to be conducted in July 2022. The evaluations have shown a high calibre of deep science skills and knowledge supporting the delivery of *Strategy 2028*, with specific areas of opportunity and refinement identified for each impact area. Typically, these involved refining and articulating purpose; leadership; staff development; digital science evolution; and science outreach and communication to stakeholders and community.
Performance measure	Provide scientific leadership and guidance to maintain scientific quality, relevance and excellence through a framework guided by Geoscience Australia's Science Strategy
2021–22 target	Finalisation and release of Geoscience Australia's Science Strategy
2021–22 result	Achieved The *Science Strategy 2028* and accompanying implementation plan were released in November 2021. The public seminar to mark the release had the highest seminar attendance for 2021. The Science and Innovation Committee will monitor progress of the *Science Strategy 2028* against the implementation plan.

Performance measure	Attract, develop and sustain Geoscience Australia's staff science capability and capacity
2021–22 target	Lead scientific mentoring and support the 2021 Geoscience Australia Graduate cohort
2021–22 result	Achieved The 2021 Graduate Program was completed and included regular group meetings between the Chief Scientist and graduates. Promotion of, and recruitment for, the 2023 graduate intake has begun.

Summary and analysis

Geoscience Australia delivered several organisational initiatives in 2021–22 to continue building a strong diverse and inclusive culture. This included training and awareness to increase understanding of mental health, an assessment of the organisation's culture, proactive actions to increase gender equity, and new family and domestic violence policy and procedures to support employees and their children. Despite a delay in submitting an application for silver SAGE accreditation, Geoscience Australia is on track to achieve this prestigious recognition in 2022–23.

We made progress on several initiatives to improve how we operate internally and how we are recognised externally. Our Technology Roadmap and Investment Plan plays an important role in making good decisions to ensure a sustainable future for the organisation. The Enterprise Service Management Catalogue and improvements to user access management are on track to be implemented in 2022–23, despite unanticipated delays. Our best-practice approaches to community engagement strengthen our reputation. While the COVID-19 pandemic had an unavoidable impact on Geoscience Australia's ability to engage with First Nations organisations, the commencement of negotiations on data sharing with several organisations is noteworthy in these circumstances. The communications framework will be finalised and implemented in 2022–23 and is part of a broader suite of materials to enhance communications with stakeholders. A refresh of our visual identity has made it easier to attribute the outcomes of our broad range of work to Geoscience Australia.

The *Science Strategy 2028* was released in 2021–22 and builds a reference, commitment and implementation plan that combines Geoscience Australia's key science principles and core commitments to ensure that relevant and high-quality science supports our core business and program deliverables. The strategy provides terms of reference for the 2022–23 science evaluations as part of a 5-year cycle of assessment. The completion of the current round of science evaluations was slightly delayed, with the last evaluation held in July 2022. The evaluations will provide recommendations for considering and guiding our science over the next 5 years that will be monitored by the new Science and Innovation Committee.

Geoscience Australia's graduate program contributes to sustained science capability and capacity by bringing early-career researchers into the organisation and supporting their career development. This includes a mentoring program that provides insights into personal, skill and knowledge development as a government scientist. Graduates engage with various teams and roles in Geoscience Australia and stakeholder groups, as well as participating in a program of regular meetings with the Chief Scientist.

Financial performance

Operating result

Geoscience Australia had an operating surplus of $50.2 million, before adjusting for unfunded depreciation of $9.7 million, depreciation on right-of-use (ROU) assets of $27.6 million and principal repayments on lease assets of $22.9 million. Excluding the impact of depreciation, amortisation and AASB 16 Leases, the operating result at 30 June 2022 was a $64.5 million surplus. The surplus was mainly due to delays in implementing the SBAS measure.

Geoscience Australia's total income for the year was $295.3 million, comprising $260.1 million in appropriations from government, $31.1 million from the sale of goods and services to related and external entities, and $4.2 million from other revenue and rental income.

Total expenses were $245.1 million. The major expense categories were employee expenses of $82.8 million, supplier expenses of $120.9 million, depreciation and amortisation of $37.4 million and interest on ROU assets of $3.8 million.

The note on departmental budget variances in the financial statements compares the actual results to the original budget presented in the 2021–22 Portfolio Budget Statements.

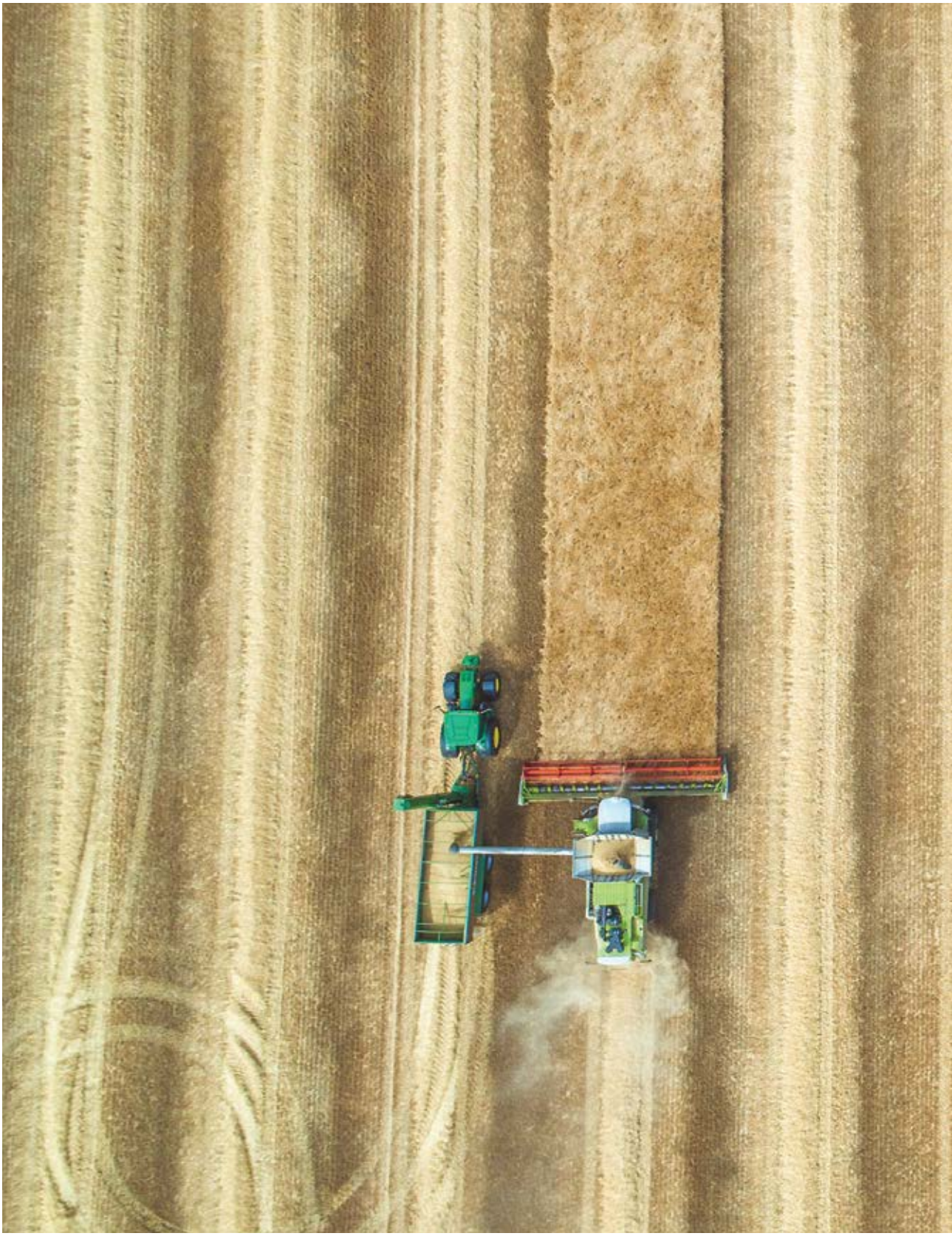
A summary of Geoscience Australia's total resources and total payments is provided in Appendix 1.

Financial sustainability

Net assets as at 30 June 2022 were $131.8 million. Total assets were $490.3 million and total liabilities were $358.4 million. Geoscience Australia has sufficient financial assets to pay its suppliers and other payables as and when they fall due. Non-financial assets consist mainly of property (land and buildings), plant and equipment, and leasehold improvements owned by Geoscience Australia.

Administered items

Geoscience Australia administered one grant on behalf of the government in 2021–22. However, no grant was made to the Australian UNESCO Committee for the International Geoscience Programme due to COVID-19 restrictions on overseas travel.



Management and accountability

Corporate governance

Geoscience Australia's corporate governance arrangements guide the organisation's management practices and business operations to ensure it is accountable, manages risk appropriately, delivers on strategic priorities and meets its legal obligations.

Its governance framework includes advisory bodies and committees, as well as accountable authority Instructions, policies, procedures and guidelines.

The Chief Executive Officer (CEO) is supported by the Executive Board. The Executive Board comprises Senior Executive Service (SES) officials. The Executive Board's role is to review and endorse strategic direction, performance, policies for key issues including people and workplace, and the entity's strategic risk management.

The Executive Board is responsible for meeting Geoscience Australia's planning and performance reporting obligations set out in the *Public Governance, Performance and Accountability Act 2013* and associated rules. Specifically, the Executive Board is responsible for assisting the accountable authority in developing a corporate plan that documents Geoscience Australia's purpose, priorities and performance information over the current and future years.

To meet these obligations, the Executive Board is supported by the Investment and Finance Committee that comprises SES officials and advises the CEO, through the Executive Board, on investment priorities and resource allocation.

The Executive Board is also supported by committees for Audit and Risk; Security; Workplace Relations, Health and Safety; People and Culture; Science and Innovation; Business Risk and Impact; and a Digital Science and ICT Steering Committee.

Geoscience Australia's governance practices comply with all statutory requirements. These are reviewed regularly to ensure its practices remain relevant and effective.

Audit and Risk Committee

The Audit and Risk Committee's function is to review the appropriateness of Geoscience Australia's financial and non-financial performance reporting and provide independent advice to the CEO regarding the risk, control and compliance framework, and external accountability responsibilities. The Audit and Risk Committee Charter is available on the Geoscience Australia website at ga.gov.au/__data/assets/pdf_file/0003/122295/Audit-and-Risk-Committee-Charter-2021.pdf. Details of Audit and Risk Committee membership are in Appendix 2 of this report.

Fraud control

Geoscience Australia's fraud control framework is consistent with better practice and provides assurance that its fraud control strategies are robust. It provides ongoing fraud awareness training for all staff. As required by the Fraud Rule and the Commonwealth Fraud Control Framework, it reviews and updates Geoscience Australia's Fraud Control Plan every 2 years. The plan details fraud prevention, detection, investigation and reporting procedures.

Compliance with finance law

There were no significant instances of non-compliance with finance law reported to the responsible minister as part of Geoscience Australia's internal compliance reporting process for 2021–22.

External scrutiny

In 2021–22, no judicial or administrative tribunal decisions or decisions of the Australian Information Commissioner were relevant to Geoscience Australia. No report on the organisation's operations was given by the Commonwealth Ombudsman or Auditor-General, and no capability reviews were released. Geoscience Australia had one referral to the Fair Work Ombudsman during the reporting period.

Parliamentary committees

Geoscience Australia appeared before the Senate Environment and Communications References Committee's inquiry into oil and gas exploration and production in the Beetaloo Basin on 2 August 2021.

Information Publication Scheme

Under Part II of the *Freedom of Information Act 1982*, Geoscience Australia is required to publish information as part of the Information Publication Scheme. A plan showing the information we publish in accordance with the scheme is available on Geoscience Australia's website: ga.gov.au/ips.

Management of human resources

Geoscience Australia progressed a diverse breadth of strategic people and culture initiatives during 2021–22 to continue its active focus on building and maintaining an inclusive and safe organisational culture.

In August 2021, the organisation launched its *Diversity and Inclusion Strategy* to further strengthen its journey to build a stronger, more diverse and more inclusive organisation best positioned to continue its valuable work. A key platform for this strategy is to progress the organisation towards silver accreditation with SAGE by 2025. Under the broad themes of the strategy, Geoscience Australia:

- developed and implemented a suite of new human resources policies and procedures, including a Family and Domestic Violence Policy and Procedure, and Sexual Harassment and Sexism Policy and Procedure
- opened a new family room to provide a safe workplace for employees experiencing family and domestic violence to work with their children present
- gained reaccreditation as a breastfeeding-friendly workplace by the Australian Breastfeeding Association
- submitted its first Cygnet Award application to SAGE under the inclusive culture theme.

Additionally, the Australian HR Institute recognised its work towards creating a more diverse and high-performing workforce. In 2021, the CEO was the joint winner of the CEO Diversity Champion Award.

As part of its commitment to educating and supporting staff and keeping everyone safe, 2 new modules were added to the Essential Learning Plan – Preventing Sexual Harassment and Sexism for Workers, and Domestic and Family Violence Protection. The Domestic and Family Violence Protection module covers topics that support staff to identify and understand types of domestic violence, high-risk groups, myths and misunderstandings, mechanisms available in the workplace and where to access further information, support or assistance.

Following a period of staff consultation, the organisation refreshed its Flexible Working Procedure and Workplace Adjustments Procedure, based on learnings from its experience of remote working during the COVID-19 pandemic. Flexible work arrangements requests have been incorporated into the online Performance Development Plan tool to streamline the application process and encourage more frequent reviews of arrangements between managers and employees. As at June 2022, Geoscience Australia had 428 approved formal flexible working arrangements. This represents 68% of its workforce.

Geoscience Australia continued to implement its *Mental Health Strategy 2023* following its launch in October 2020. The strategy supports the obligations embedded in its Work Health Safety Statement of Commitment 2023 and takes a whole of Australian Public Service (APS) approach to developing and sustaining mentally healthy workplaces. The strategy focuses on promoting mental health and wellness, protecting people from harm and supporting recovery.

It continued to participate as a 'mirror' pilot agency in the APS Mental Health Capability Framework pilot during the year. The pilot's maturity-scale assessment identified a baseline of moderate maturity in mental health capability, which will be further enhanced by initiatives driven by the Mental Health Strategy in future years. This level of maturity is supported by the 2021 APS Employee Census results, which indicated a 72% wellbeing index score, with 89% of staff believing their immediate supervisor cares about their health and wellbeing.

Geoscience Australia is in the process of adopting the latest APS Job Family Framework to support workforce segmentation and insights across the APS. Throughout the year, it collaborated with other APS science bodies and international partners to determine the best way to segment its workforce. A Geoscience Australia–specific Job Family Framework was developed that will enable benchmarking against other Australian Government entities and science bodies.

With the Geoscience Australia Enterprise Agreement 2019–22 (enterprise agreement) nominally expiring on 25 June 2022, the organisation commenced enterprise bargaining to align the new agreement with the *Diversity and Inclusion Strategy*. This will demonstrate the organisation's commitment to supporting its employees in all aspects of their lives so they can continue to work and participate in the workplace in a safe and meaningful way, regardless of sex, gender or individual circumstances. These changes are aimed at supporting Geoscience Australia to attract a more diverse workforce. It will also continue to position itself as an employer of choice that attracts and maintains the best talent through employment conditions that meet the deliverables of *Strategy 2028*.

Geoscience Australia's workforce metrics are in Appendix 3.

Executive remuneration

The framework for determining remuneration for Geoscience Australia's key management personnel and other highly paid staff during 2021–22 is set out in the Senior Executive Service Remuneration Policy of the former Department of Industry, Science, Energy and Resources and the enterprise agreement. Key management personnel are remunerated through a common law contract that references policies and procedures. A small percentage of staff at the Executive Level are remunerated above the highest salary band in the enterprise agreement through an individual flexibility arrangement to recognise their extensive skills, capability and experience. Geoscience Australia's accountable authority is responsible for approving remuneration for key management personnel and highly paid staff.

Geoscience Australia's executive remuneration details are provided in Appendix 4.

Work health and safety

In 2021–22, Geoscience Australia continued its holistic approach to work health and safety (WHS) practices, wellbeing, injury prevention and injury management. It continued to review and refresh its WHS management system to ensure continual compliance against applicable legislation, and incorporate best practice and ease of use. Investments in worker health, safety and wellbeing included:

- offering flu vaccinations to all workers in May 2022, resulting in 48% of workers receiving a dose
- developing and implementing a new WHS Policy and Procedures

- offering the Employee Assistance Program, which provides employees and their immediate family members with confidential, independent counselling for any personal or work-related matters
- conducting workplace physical health and wellness assessments, providing employees with a self-screening online questionnaire to identify potential health issues, along with a practical examination
- implementing a health self-management portal, including wellness assessments, wellness campaigns and resources to support mind, body, work and life
- introducing a Minor Injury Support Program (MISP) for employees who have developed short-term medical conditions related to their work and have incurred expenses in seeking treatment. The MISP covers expenses to support an early and safe return to positive health
- acting to uplift mental health capability, including providing tailored and interactive workshops facilitated by a psychologist to enhance and support self-awareness and knowledge of mental health and wellbeing
- launching an external and confidential sexual harassment and sexism hotline dedicated to providing employees with an anonymous reporting mechanism and initial wellbeing support
- supporting a Mental Health and Wellbeing Model of Care that uses a continuum approach to providing mental health services, focusing on building capability, ensuring early intervention and linking employees to the right support
- introducing a new family room facility to provide a safe workspace for employees experiencing family and domestic violence to work with their children present
- providing case management support for managers and employees, for all WHS, rehabilitation and injury management matters.

During 2021–22, no incidents were deemed notifiable under section 38 of the *Work Health and Safety Act 2011* to report to Comcare, and no notices were issued under Part 10 of the Act.

Disability reporting mechanisms

Disability reporting is included in the Australian Public Service Commission's annual State of the Service Report and the APS Statistical Bulletin. These reports are available on the Australian Public Service Commission's website: apsc.gov.au.

Australia's Disability Strategy 2021–2031 sets out a 10-year national policy framework to improve the lives of people with disability, promote participation and create a more inclusive society. A high-level biennial report tracks Australia's progress against each of the outcome areas of the strategy and presents a picture of how people with disability are faring. Reports are available on the Department of Social Services' website: dss.gov.au.

Reconciliation Action Plan

Geoscience Australia's second Reconciliation Action Plan (RAP), the Innovate RAP, was launched on 20 May 2021 and outlines practical actions that will drive its contribution to reconciliation, both internally and across the communities in which it operates. The Innovate RAP provides measurable actions over the next 2 years in areas including valuing relationships, respecting First Nations peoples' cultures, and growing opportunities for reconciliation.

The Innovate RAP builds on the vision and sentiments underlying Geoscience Australia's staff contributions. Its reconciliation journey is championed by the CEO. This second RAP builds on previous initiatives and continues to support, guide and hold the organisation to account as it furthers its commitment to reconciliation.

Of the 58 deliverables in the Innovate RAP, Geoscience Australia has completed 18 and has a further 25 in progress.

Purchasing

During 2021–22, Geoscience Australia undertook its procurements in accordance with the Commonwealth Procurement Rules and the requirements of its Accountable Authority Instructions.

Geoscience Australia supports small business participation in the Commonwealth Government procurement market. Small and medium enterprise and small enterprise participation statistics are available on the Department of Finance's website: finance.gov.au.

Geoscience Australia recognises the importance of ensuring that small businesses are paid on time. The results of the Survey of Australian Government Payments to Small Business are available on the Department of the Treasury's website: treasury.gov.au. In an effort to support small business and ensure payments are on time, Geoscience Australia uses payment cards, issued to all officials who pass a financial accreditation exam, for purchases under $10,000 (GST inclusive). For low-risk purchases under $200,000 (GST inclusive) Geoscience Australia use the Commonwealth Contracting Suite, incorporating the Glossary and the Commonwealth Contract Terms to support and ensure payments are on time.

Contracts

The CEO did not exempt any contract entered into during 2021–22 from publication on AusTender on the basis that it would disclose exempt matters under the Freedom of Information Act.

All contracts valued at $100,000 or more (GST inclusive) entered into during 2021–22 allowed for the Auditor-General to access the contractor's premises.

During 2021–22, Geoscience Australia entered into 605 new reportable non-consultancy contracts involving total actual expenditure of $121,531,814 (GST inclusive). In addition, 175 ongoing reportable non-consultancy contracts were active during the period, involving total actual expenditure of $20,886,096 (GST inclusive).

Annual reports contain information about actual expenditure on reportable non-consultancy contracts. Information on the value of reportable non-consultancy contracts is available on the AusTender website: tenders.gov.au.

Table 3.1 Expenditure on reportable non-consultancy contracts (2021–22).

	Number	Expenditure ($ inc. GST)
New contracts entered into during the reporting period	605	121,531,814
Ongoing contracts entered into during a previous reporting period	175	20,886,096
Total	780	142,417,910

Table 3.2 Organisations receiving a share of reportable non-consultancy contract expenditure (2021–22).

Name of organisation (ABN)	Expenditure ($ inc. GST)
Amazon Web Services Australia Pty Ltd (63 605 345 891)	12,339,554
Terrex Pty Ltd (41 090 147 274)	6,597,894
Geoplex Pty Ltd (16 146 227 965)	5,052,811
CSIRO (41 687 119 230)	4,841,471
Cirrus Networks (ACT) Pty Ltd (85 143 561 291)	4,772,091

Consultants

During 2021–22, Geoscience Australia entered into 11 new consultancy contracts involving total actual expenditure of $3,585,371 (GST inclusive). There was one ongoing consultancy contract during 2021–22 involving total actual expenditure of $117,940 (GST inclusive).

Geoscience Australia's policy on selecting and engaging consultants and approving expenditure takes into account all relevant legislation, the Commonwealth Procurement Rules and Geoscience Australia's Accountable Authority Instructions. The procurement method is determined having regard to cost, value for money and the nature of the work involved.

Consultants are typically engaged to carry out defined reviews or evaluations, or provide independent advice, information or creative solutions to assist Geoscience Australia's decision-making. Examples include engagement of technical experts to assist with the effectiveness of Geoscience Australia's programs.

Annual reports contain information about actual expenditure on contracts for consultancies. Information on the value of contracts and consultancies is available on the AusTender website: tenders.gov.au.

Table 3.3 Expenditure on reportable consultancy contracts (2021–22).

	Number	Expenditure ($ inc. GST)
New contracts entered into during the reporting period	11	3,585,371
Ongoing contracts entered into during a previous reporting period	1	117,940
Total	12	3,703,311

Table 3.4 Organisations receiving a share of reportable consultancy contract expenditure (2021–22).

Name of organisation (ABN)	Expenditure ($ inc. GST)
The Aerospace Corporation (ABN exempt)	2,000,000
DFC 1 Pty Ltd (74 490 121 060)	481,360
ACIL Allen Consulting Pty Ltd (68 102 652 148)	330,000
Geoplex Pty Ltd (16 146 227 965)	234,135
OCRT Trading Pty Ltd (39 631 116 295)	125,316

Grants

Information on grants awarded by Geoscience Australia is available on the GrantConnect website: grants.gov.au. Geoscience Australia did not award any grants during 2021–22.

Advertising and market research

Under section 311A of the *Commonwealth Electoral Act 1918*, Geoscience Australia is required to disclose payments for advertising and market research that are above the reportable threshold of $14,300 (GST inclusive).

During 2021–22, Geoscience Australia did not conduct any advertising campaigns.

Financial statements

Australian National Audit Office

INDEPENDENT AUDITOR'S REPORT

To the Minister for Resources

Opinion

In my opinion, the financial statements of Geoscience Australia (the Entity) for the year ended 30 June 2022:

(a) comply with Australian Accounting Standards – Simplified Disclosures and the *Public Governance, Performance and Accountability (Financial Reporting) Rule 2015*; and

(b) present fairly the financial position of the Entity as at 30 June 2022 and its financial performance and cash flows for the year then ended.

The financial statements of the Entity, which I have audited, comprise the following as at 30 June 2022 and for the year then ended:

- Statement by the Accountable Authority and Chief Financial Officer;
- Statement of Comprehensive Income;
- Statement of Financial Position;
- Statement of Changes in Equity;
- Cash Flow Statement;
- Administered Schedule of Comprehensive Income;
- Administered Reconciliation Schedule;
- Administered Cash Flow Statement; and
- Notes to the financial statements, comprising a summary of significant accounting policies and other explanatory information.

Basis for opinion

I conducted my audit in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards. My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of my report. I am independent of the Entity in accordance with the relevant ethical requirements for financial statement audits conducted by the Auditor-General and his delegates. These include the relevant independence requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) to the extent that they are not in conflict with the *Auditor-General Act 1997*. I have also fulfilled my other responsibilities in accordance with the Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Accountable Authority's responsibility for the financial statements

As the Accountable Authority of the Entity, the Chief Executive Officer is responsible under the *Public Governance, Performance and Accountability Act 2013* (the Act) for the preparation and fair presentation of annual financial statements that comply with Australian Accounting Standards – Simplified Disclosures and the rules made under the Act. The Chief Executive Officer is also responsible for such internal control as the Chief Executive Officer determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

GPO Box 707, Canberra ACT 2601
38 Sydney Avenue, Forrest ACT 2603
Phone (02) 6203 7300

In preparing the financial statements, the Chief Executive Officer is responsible for assessing the ability of the Entity to continue as a going concern, taking into account whether the Entity's operations will cease as a result of an administrative restructure or for any other reason. The Chief Executive Officer is also responsible for disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the assessment indicates that it is not appropriate.

Auditor's responsibilities for the audit of the financial statements

My objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian National Audit Office Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with the Australian National Audit Office Auditing Standards, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Accountable Authority;
- conclude on the appropriateness of the Accountable Authority's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Entity to cease to continue as a going concern; and
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with the Accountable Authority regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

Australian National Audit Office

Sally Bond

Executive Director

Delegate of the Auditor-General

Canberra

31 August 2022

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STATEMENT BY THE ACCOUNTABLE AUTHORITY AND CHIEF FINANCIAL OFFICER

In our opinion, the attached financial statements for the year ended 30 June 2022 comply with subsection 42(2) of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act), and are based on properly maintained financial records as per subsection 41(2) of the PGPA Act.

In our opinion, at the date of this statement, there are reasonable grounds to believe that Geoscience Australia will be able to pay its debts as and when they fall due.

Dr James Johnson
Chief Executive Officer
Geoscience Australia

30/08/2022

Michael Koh
Chief Finance Officer
Geoscience Australia

30/08/2022

Geoscience Australia

Statement of Comprehensive Income

for the period ended 30 June 2022

	Notes	2022 $'000	2021 $'000	Original Budget[1] $'000
NET COST OF SERVICES				
Expenses				
Employee benefits	1.1A	82,831	78,319	81,803
Suppliers	1.1B	120,908	99,057	207,216
Depreciation and amortisation	3.2A	37,430	36,590	37,984
Finance costs	1.1C	3,764	4,025	3,613
Impairment loss on trade and other receivables		34	-	-
Foreign exchange losses		-	5	-
Losses from asset sales		181	96	-
Total expenses		245,148	218,092	330,616
Own-source income				
Own-source revenue				
Revenue from contracts with customers	1.2A	31,095	31,020	54,281
Rental income	1.2B	713	736	189
Other revenue	1.2C	3,442	4,272	1,144
Total own-source revenue		35,250	36,028	55,614
Gains				
Foreign exchange gains		1	-	-
Total gains		1	-	-
Total own-source income		35,251	36,028	55,614
Net cost of services		(209,897)	(182,064)	(275,002)
Revenue from Government	1.2D	260,052	171,236	260,028
Surplus/(Deficit) on continuing operations		50,155	(10,828)	(14,974)
OTHER COMPREHENSIVE INCOME				
Items not subject to subsequent reclassification to net cost of services				
Changes in asset revaluation reserve		4,151	295	-
Total other comprehensive income		4,151	295	-
Total comprehensive income/(loss)		54,306	(10,533)	(14,974)

The above statement should be read in conjunction with the accompanying notes.

1. Original budget as presented in the 2021-22 Portfolio Budget Statements.

Geoscience Australia

Statement of Financial Position

as at 30 June 2022

	Notes	2022 $'000	2021 $'000	Original Budget[1] $'000
ASSETS				
Financial assets				
Cash and cash equivalents	3.1A	**766**	336	2,500
Trade and other receivables	3.1B	**126,821**	76,430	110,808
Accrued revenue	3.1C	**3,271**	1,957	1,610
Total financial assets		**130,858**	78,723	114,918
Non-financial assets[2]				
Land	3.2A	**1,891**	1,902	1,938
Buildings	3.2A	**270,020**	296,856	273,925
Leasehold improvements	3.2A	**20,851**	20,478	18,222
Heritage and cultural	3.2A	**7,274**	3,196	791
Plant and equipment	3.2A	**51,836**	39,406	48,881
Computer software	3.2A	**1,715**	924	3,221
Prepayments		**5,833**	3,577	6,430
Total non-financial assets		**359,420**	366,339	353,408
Total assets		**490,278**	445,062	468,326
LIABILITIES				
Payables				
Suppliers	3.3A	**11,644**	9,679	9,428
Personal benefits		**-**	-	2,231
Other payables	3.3B	**30,230**	34,255	24,900
Total payables		**41,874**	43,934	36,559
Interest bearing liabilities				
Leases	3.4A	**285,497**	307,596	289,585
Total interest bearing liabilities		**285,497**	307,596	289,585
Provisions				
Employee provisions	5.1A	**26,850**	26,182	28,286
Other provisions	3.5A	**4,227**	3,895	4,276
Total provisions		**31,077**	30,077	32,562
Total liabilities		**358,448**	381,607	358,706
Net assets		**131,830**	63,455	109,620
EQUITY				
Contributed equity		**65,693**	51,624	117,471
Reserves		**19,362**	15,211	14,916
Retained surplus/(Accumulated deficit)		**46,775**	(3,380)	(22,767)
Total equity		**131,830**	63,455	109,620

The above statement should be read in conjunction with the accompanying notes.

1. Original budget as presented in the 2021-22 Portfolio Budget Statements.

2. Right-of-use assets are included in Land, Buildings, Plant and Equipment.

Geoscience Australia

Statement of Changes in Equity

for the period ended 30 June 2022

		2022				2021			
		$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
	Notes	Retained earnings	Asset revaluation reserves	Contributed equity /capital	Total	Retained earnings	Asset revaluation reserves	Contributed equity /capital	Total
Opening balance		(3,380)	15,211	51,624	63,455	7,518	14,916	89,123	111,557
Comprehensive Income									
Surplus for the period		50,155	-	-	50,155	(10,828)	-	-	(10,828)
Other comprehensive income									
Change in make good provision		-	73	-	73	-	295	-	295
Revaluation and impairments	3.2A	-	4,078	-	4,078	-	-	-	-
Total comprehensive income		50,155	4,151	-	54,306	(10,828)	295	-	(10,533)
Transactions with owners									
Distributions to owners									
Returns of capital									
Return of equity - Equity Injections Appropriations	4.1B	-	-	-	-	-	-	(20,087)	(20,087)
Return of equity - Operating Appropriations	4.1B	-	-	-	-	-	-	(31,691)	(31,691)
Cash to Official Public Account		-	-	-	-	(70)	-	-	(70)
Contributions by owners									
Equity injection - appropriations	4.1A	-	-	9,486	9,486	-	-	9,674	9,674
Departmental capital budget	4.1A	-	-	4,583	4,583	-	-	4,605	4,605
Total transactions with owners		-	-	14,069	14,069	(70)	-	(37,499)	(37,569)
Closing balance		46,775	19,362	65,693	131,830	(3,380)	15,211	51,624	63,455

Original Budget[1]				
Opening balance	(7,793)	14,916	103,402	110,525
Surplus for the period	(14,974)	-	-	(14,974)
Total comprehensive income	(14,974)	-	-	(14,974)
Transactions with owners				
Contributions by owners				
Departmental capital budget	-	-	4,583	4,583
Equity injection - appropriations	-	-	9,486	9,486
Total Transactions with owners	-	-	14,069	14,069
Closing balance	(22,767)	14,916	117,471	109,620

The above statement should be read in conjunction with the accompanying notes.

1. Original budget as presented in the 2021-22 Portfolio Budget Statements.

Accounting Policy

Equity Injections

Amounts appropriated which are designated as 'equity injections' for a year (less any formal reductions) and Departmental Capital Budgets (DCBs) are recognised directly in contributed equity in that year.

Geoscience Australia

Cash Flow Statement

for the period ended 30 June 2022

	Notes	2022 $'000	2021 $'000	Original Budget[1] $'000
OPERATING ACTIVITIES				
Cash received				
Appropriations		**250,827**	218,147	290,699
Receipts from Government		**9**	126	-
Sale of goods and rendering of services		**27,991**	28,415	53,190
Net GST received		**13,022**	9,166	10,907
Other		**3,762**	2,808	1,002
Total cash received		**295,611**	258,662	355,798
Cash used				
Employees		**82,137**	78,395	80,554
Suppliers		**135,236**	103,841	218,544
Interest payments on lease liabilities		**3,713**	3,989	3,563
Section 74 receipts transferred to OPA		**45,684**	48,593	30,127
Other		**-**	1	-
Total cash used		266,770	234,819	332,788
Net cash from operating activities		**28,841**	23,843	23,010
INVESTING ACTIVITIES				
Cash received				
Proceeds from sales of property, plant and equipment		**21**	8	-
Total cash received		**21**	8	-
Cash used				
Purchase of property, plant and equipment		**21,562**	10,495	13,869
Purchase of heritage and cultural assets		**64**	80	-
Purchase of intangibles		**1,427**	276	200
Total cash used		**23,053**	10,851	14,069
Net cash used by investing activities		**(23,032)**	(10,843)	(14,069)
FINANCING ACTIVITIES				
Cash received				
Contributed equity - Equity injection		**12,932**	3,981	9,464
Contributed equity - Departmental Capital Budget		**4,583**	4,605	4,605
Total cash received		**17,515**	8,586	14,069
Cash used				
Principal payments of lease liabilities		**22,894**	21,810	23,010
Total cash used		**22,894**	21,810	23,010
Net cash used by financing activities		**(5,379)**	(13,224)	(8,941)
Net increase/(decrease) in cash held		**430**	(224)	-
Cash and cash equivalents at the beginning of the reporting period		**336**	560	2,500
Cash and cash equivalents at the end of the reporting period	3.1A	**766**	336	2,500

The above statement should be read in conjunction with the accompanying notes.

1. Original budget as presented in the 2021-22 Portfolio Budget Statements.

Geoscience Australia

Administered Schedule of Comprehensive Income

for the period ended 30 June 2022

	Notes	2022 $'000	2021 $'000	Original Budget[1] $'000
NET COST OF SERVICES				
Expenses				
Grants		-	-	19
Total expenses		-	-	19
Income				
Revenue				
Other revenue	2.1A	-	19	-
Total non-taxation revenue		-	19	-
Total revenue		-	19	-
Total income		-	19	-
Net (cost of)/contribution by services		-	19	(19)
Surplus/(Deficit)		-	19	(19)

The above schedule should be read in conjunction with the accompanying notes.
1. Original budget as presented in the 2021-22 Portfolio Budget Statements.

Geoscience Australia
Administered Reconciliation Schedule
for the period ended 30 June 2022

	Notes	2022 $'000	2021 $'000
Opening assets less liabilities as at 1 July		-	-
Net contribution by services			
Income		-	19
Transfers to the Australian Government			
Appropriation transfers to OPA			
Transfers to OPA		-	(19)
Closing assets less liabilities as at 30 June		-	-

The above schedule should be read in conjunction with the accompanying notes.

Accounting Policy
Administered Cash Transfers to and from the Official Public Account
Revenue collected by the entity for use by the Government rather than the entity is administered revenue. Collections are transferred to the Official Public Account (OPA) maintained by the Department of Finance. Conversely, cash is drawn from the OPA to make payments under Parliamentary appropriation on behalf of Government. These transfers to and from the OPA are adjustments to the administered cash held by the entity on behalf of the Government and reported as such in the schedule of administered cash flows and in the administered reconciliation schedule.

Geoscience Australia
Administered Cash Flow Statement
for the period ended 30 June 2022

	Notes	2022 $'000	2021 $'000	Original Budget[1] $'000
OPERATING ACTIVITIES				
Cash received				
Other		-	19	19
Total cash received		-	19	19
Cash used				
Grants		-	-	19
Total cash used		-	-	19
Net cash from operating activities		-	19	-
Cash to Official Public Account				
Appropriations		-	19	-
Total cash to official public account		-	19	-
Net increase/(decrease) in cash held		-	-	-
Cash and cash equivalents at the beginning of the reporting period		-	-	-
Cash and cash equivalents at the end of the reporting period		-	-	-

This schedule should be read in conjunction with the accompanying notes.

1. Original budget as presented in the 2021-22 Portfolio Budget Statements.

Departmental Budget Variance

The below table provides explanations for significant variances between Geoscience Australia's original budget estimates, as published in the 2021-22 Portfolio Budget Statements and the actual financial performance and position for the year.

Explanations of major variances	Affected line items
Supplier expenses are lower than budget by $86.3 million and **Revenue from contracts with customers** is lower than budget by $23.2 million mainly due to delays in implementation of the Satellite Based Augmentation System measure.	Total expenses (Statement of comprehensive income) Suppliers (Cash flow statement) Retained earnings (Statement of changes in equity) Total own-source revenue (Statement of comprehensive income) Sale of goods and services (Cash flow statement)
Changes in asset revaluation reserve is higher than budget by $4.2 million due to revaluation of **Heritage and cultural** assets during the year.	Other comprehensive income (Statement of comprehensive income and Statement of changes in equity) Non-financial assets (Statement of financial position)
Trade and other receivables is higher than budget by $16.0 million due to appropriations receivable relating to the current and prior year surplus.	Financial assets (Statement of financial position)
Total payables are higher than budget by $5.3 million, due to higher unearned revenue ($2.5 million), mainly relating to services to be performed for other Commonwealth entities, and higher supplier payables ($2.2 million) due to higher accruals for goods and services received but yet to be invoiced at 30 June.	Liabilities (Statement of financial position)
Total provisions are lower than budget by $1.4 million, mainly due to revaluation of employee long service leave provisions at 30 June.	Liabilities (Statement of financial position)

Overview

Geoscience Australia is an Australian Government controlled not-for-profit entity. Geoscience Australia's purpose is to be the trusted source of information on Australia's geology and geography for government, industry and community decision making, and to contribute to a safer, more prosperous and well-informed Australia.

Geoscience Australia is structured to meet a single outcome: informed government, industry and community decisions on the economic, social and environmental management of the nation's natural resources through enabling access to geoscientific and spatial information.

Geoscience Australia administers a grant to the International Geoscience Programme on behalf of the Government.

The Basis of Preparation

The financial statements are required by section 42 of the *Public Governance, Performance and Accountability Act 2013* .

The financial statements have been prepared in accordance with:

a) *Public Governance, Performance and Accountability (Financial Reporting) Rule 2015* (FRR); and

b) Australian Accounting Standards and Interpretations – including simplified disclosures for Tier 2 Entities under AASB 1060 issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period.

The financial statements have been prepared on an accrual basis and in accordance with the historical cost convention, except for certain assets and liabilities at fair value. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position. The financial statements are presented in Australian dollars.

New Accounting Standards

All new standards, revised standards and/or interpretations that were issued prior to the sign-off date and are applicable to the current reporting period did not have a material effect on GA's financial statements.

Standard/ Interpretation	Nature of change in accounting policy, transitional provisions, and adjustment to financial statements
AASB 1060 General Purpose Financial Statements – Simplified Disclosures for For-Profit and Not-for-Profit Tier 2 Entities	AASB 1060 applies to annual reporting periods beginning on or after 1 July 2021 and replaces the reduced disclosure requirements (RDR) framework. The application of AASB 1060 involves some reduction in disclosure compared to the RDR with no impact on the reported financial position, financial performance and cash flows of the entity.

Taxation

Geoscience Australia is exempt from all forms of taxation except Fringe Benefits Tax (FBT) and the Goods and Services Tax (GST).

Reporting of Administered activities

Administered revenues, expenses, assets, liabilities and cash flows are disclosed in the administered schedules and related notes.

Except where otherwise stated, administered items are accounted for on the same basis and using the same policies as for departmental items, including the application of Australian Accounting Standards.

Events After the Reporting Period

There were no events occurring after 30 June 2022 that would have a material impact on the departmental or administered financial statements.

Financial Performance

This section analyses the financial performance of Geoscience Australia for the year ended 2022.

1.1 Expenses

	2022 $'000	2021 $'000
1.1A: Employee benefits		
Wages and salaries	63,983	60,371
Superannuation		
Defined contribution plans	7,119	6,411
Defined benefit plans	4,535	5,060
Leave and other entitlements	6,776	6,477
Separation and redundancies	418	-
Total employee benefits	82,831	78,319

Accounting Policy
Accounting policies for employee related expenses is contained in the People and relationships section.

1.1B: Suppliers		
Goods and services supplied or rendered		
Consultants	3,058	1,951
Contractors	53,583	39,797
Travel	943	597
IT services	35,878	35,089
Property operating	6,107	5,415
Office supplies	778	657
Direct operational costs	6,111	2,958
Research	10,654	6,278
Other	3,579	5,930
Total goods and services supplied or rendered	120,691	98,672
Goods supplied	1,489	2,602
Services rendered	119,202	96,070
Total goods and services supplied or rendered	120,691	98,672
Other suppliers		
Workers compensation expenses	204	299
Short-term leases	13	86
Total other suppliers	217	385
Total suppliers	120,908	99,057

Geoscience Australia has no short-term lease commitments as at 30 June 2022 (2021: nil).

The above lease disclosures should be read in conjunction with the accompanying notes 1.1C, 1.2B, 3.2A and 3.4A.

Accounting Policy
Short-term leases and leases of low-value assets
Geoscience Australia has elected not to recognise right-of-use assets and lease liabilities for short-term leases of assets that have a lease term of 12 months or less and leases of low-value assets (less than $10,000). Geoscience Australia recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

1.1C: Finance costs		
Interest on lease liabilities	3,713	3,989
Other interest payments	-	1
Unwinding of discount	51	35
Total finance costs	3,764	4,025

The above lease disclosures should be read in conjunction with the accompanying notes 1.1B, 1.2B, 3.2A and 3.4A.

1.2 Own-Source Revenue and gains

	2022 $'000	2021 $'000
Own-Source Revenue		
1.2A: Revenue from contracts with customers		
Sale of goods	276	198
Rendering of services	30,819	30,822
Total revenue from contracts with customers	31,095	31,020
Disaggregation of revenue from contracts with customers		
Geoscience Australia's value to the nation:		
Building Australia's resource wealth	10,512	5,271
Supporting Australia's community safety	6,417	2,770
Securing Australia's water resources	409	1,252
Managing Australia's marine jurisdictions	2,200	7,425
Creating a location-enabled Australia	9,139	12,170
Enabling an informed Australia	2,083	1,908
Corporate	335	224
	31,095	31,020
Type of customer:		
Australian Government entities (related parties)	20,443	17,909
State and Territory Governments	5,402	5,106
Non-government entities	5,250	8,005
	31,095	31,020
Timing of transfer of goods and services:		
Over time	30,806	30,612
Point in time	289	408
	31,095	31,020

Accounting Policy

Revenue recognition

Geoscience Australia recognises revenue from the provision of geoscientific support to all levels of government and industry.

Geoscience Australia delivers support across six key areas of society:

- maximising the value from our abundant mineral and energy resources
- strengthening our resilience to the impact of hazards
- optimising and sustaining our water use
- supporting the sustainable use of our marine environment
- using digital mapping for faster and smarter decision making
- equipping government, industry and the community with geoscience data and information to make informed decisions.

Geoscientific services include:

- provision of independent technical advice;
- development of tools, datasets, science products, data products and decision support tools to guide government, industry and communities;
- project management of air, marine and land surveys including but not limited to geospatial, geological, hydrogeological and geophysical data and sample collecting techniques;
- hazard and impact assessments including scenario modelling, analysis and interpretation;
- provision of ongoing real-time monitoring, analysis and advice, and
- production, supply, maintenance and management of observatory monitoring stations.

Geoscience Australia assesses agreements to determine if the contract is within the scope of AASB 15, including having enforceable performance obligations that are sufficiently specific to enable Geoscience Australia to determine when they have been satisfied. The majority of contracts that Geoscience Australia participates in fall within the scope of AASB 15.
Due to the customised nature of Geoscience Australia's services there usually is no direct observable selling price for the performance obligations. Geoscience Australia provides services on a cost recovery basis, the cost to provide each performance obligation is the best indicator of the standalone selling price.

Geoscience Australia recognises revenue as a performance obligation when satisfied. It can be over time or at a point in time. For the majority of service contracts Geoscience Australia recognises revenue over time; the customer receives the benefits provided by Geoscience Australia as services are provided. Should Geoscience Australia cease activities, the works carried out would not need to be substantially re-performed by another party to satisfy the remaining obligations. Revenue from the sale of goods is recognised at the point in time when control has been transferred to the buyer.

Where revenue is recognised over time, for each contract, Geoscience Australia determines the most representative measure of progress to achieving each performance obligation. The most common methods utilised by Geoscience Australia include:

- costs incurred as a proportion of total costs;
- surveys of performance completed to date, and
- time elapsed.

When a contract does not contain sufficiently specific performance obligations, revenue is recognised immediately in other income to the extent that the asset does not give rise to a contribution by owners, lease liability, financial instrument or a provision.

Where Geoscience Australia is contracted to acquire or construct a non-financial asset that will be controlled by Geoscience Australia, revenue is recognised when Geoscience Australia has satisfied its obligations under the agreement and is reported in other income:

- when an asset is acquired, this is at the point in time Geoscience Australia has control of the asset.
- when the asset is constructed, if Geoscience Australia has control during construction, revenue will be recognised to the extent that the construction has progressed.

Receivables for goods and services, which have 30 day terms, are recognised at the nominal amounts due less any impairment allowance account. Collectability of debts is reviewed at the end of the reporting period. Allowances are made when collectability of the debt is no longer probable.

	2022 $'000	2021 $'000
1.2B: Rental income		
Operating lease		
Subleasing right-of-use assets[1]	713	736
Total rental income	713	736

Operating Leases

1. Geoscience Australia has subleased the childcare centre at the Symonston site in Canberra and 1,540m2 within the main building. The childcare centre under lease has a ten year initial term expiring on 30 April 2027, with the option to extend for a further five years. In accordance with the Australian Government's Rent Relief Policy, no rent was collected for the childcare centre from March 2020 to May 2022 due to the impact of COVID-19 restrictions. Rental income has been recognised on a straight-line basis over the lease term. The relevant sublease agreements detail Geoscience Australia's rights as head-lessee and the sub-lessee's obligations, including the sub-lessee's obligation to make good on termination.

Maturity analysis of operating lease income receivables:		
Within 1 year	270	128
One to two years	278	262
Two to three years	286	270
Three to four years	295	278
Four to five years	252	286
More than 5 years	-	245
Total undiscounted lease payments receivable	1,381	1,469

The above lease disclosures should be read in conjunction with the accompanying notes 1.1B, 1.1C, 3.2A and 3.4A.

1.2C: Other revenue		
Employee contributions (salary sacrifice arrangements)	528	571
Other[1]	2,818	2,056
Resources received free of charge		
Remuneration of auditors	96	93
IT services	-	1,552
Total other revenue	3,442	4,272

1. Transfers to build or acquire assets, recognised in accordance with AASB 1058 are included in other income, refer Note 3.2B.

Accounting Policy

Resources Received Free of Charge

Resources received free of charge are recognised as revenue when, and only when, a fair value can be reliably determined and the services would have been purchased if they had not been donated. Use of those resources is recognised as an expense. Resources received free of charge are recorded as either revenue or gains depending on their nature.

	2022 $'000	2021 $'000
1.2D: Revenue from Government		
Appropriations		
Departmental appropriations[1]	260,052	171,236
Total revenue from Government	260,052	171,236

1. Includes a PGPA Act section 75 transfer of $24,000, refer to note 7.2A and 4.1A (2021: Includes a formal reduction of $32.254 million withheld under section 51 of the PGPA Act).

Accounting Policy

Revenue from Government

Amounts appropriated for departmental appropriations for the year (adjusted for any formal additions and reductions) are recognised as Revenue from Government when Geoscience Australia gains control of the appropriation, except for certain amounts that relate to activities that are reciprocal in nature, in which case revenue is recognised only when it has been earned. Appropriations receivable are recognised at their nominal amounts.

Income and Expenses Administered on Behalf of Government

This section analyses the activities that Geoscience Australia does not control but administers on behalf of the Government. Unless otherwise noted, the accounting policies adopted are consistent with those applied for departmental reporting.

2.1 Administered - Income

	2022 $'000	2021 $'000
Revenue		
2.1A: Other revenue		
Other[1]	-	19
Total other revenue	-	19

1. Prior year grant returned due to COVID-19 travel restrictions.

Financial Position

This section analyses the assets Geoscience Australia used to conduct its operations and the operating liabilities incurred as a result.
Employee related information is disclosed in the People and Relationships section.

3.1 Financial Assets

	2022 $'000	2021 $'000
3.1A: Cash and cash equivalents		
Cash on hand or on deposit	766	336
Total cash and cash equivalents	766	336

Accounting Policy
Cash is recognised at its nominal amount.

3.1B: Trade and other receivables		
Goods and services receivables		
Contract assets from contracts with customers	7,815	9,649
Total goods and services receivables	7,815	9,649
Refer Note 3.3B for information relating to contract liabilities from contracts with customers.		
Appropriation receivables		
Appropriation receivable	114,360	62,897
Total appropriation receivables	114,360	62,897
Other receivables		
Statutory receivables	3,309	3,094
Other	1,368	790
Total other receivables	4,677	3,884
Total trade and other receivables (gross)	126,852	76,430
Less impairment loss allowance	(31)	0
Total trade and other receivables (net)	126,821	76,430

Credit terms for goods and services from contracts with customers were within 30 days (2021: 30 days).

Accounting Policy
Financial assets
Trade receivables, loans and other receivables that are held for the purpose of collecting the contractual cash flows where the cash flows are solely payments of principal and interest, that are not provided at below-market interest rates, are subsequently measured at amortised cost using the effective interest method adjusted for any loss allowance.

Accounting Judgements and Estimates
The global COVID-19 pandemic has not materially affected the recoverability of Geoscience Australia's trade receivables and other receivables. In general, the operations of Geoscience Australia's customers and debtors have not been significantly impacted by COVID-19.

3.1C: Accrued revenue		
Accrued revenue[1]	-	58
Accrued revenue from contracts with customers	3,271	1,899
Total other financial assets	3,271	1,957

1. Accrued revenue for transfers to acquire or construct a non-financial asset, refer Note 3.2B.

3.2 Non-Financial Assets

3.2A: Reconciliation of the Opening and Closing Balances of Property, Plant and Equipment and Intangibles[1]

	Land $'000	Buildings $'000	Leasehold improvements[1] $'000	Heritage and cultural[2] $'000	Plant and equipment $'000	Computer Software $'000	Total $'000
As at 1 July 2021							
Gross book value	1,989	351,749	20,741	3,196	45,470	8,577	431,722
Accumulated depreciation, amortisation and impairment	(87)	(54,893)	(2,056)	-	(6,064)	(7,653)	(70,753)
Total as at 1 July 2021	1,902	296,856	18,685	3,196	39,406	924	360,969
Additions							
Purchase or internally developed	11	-	2,183	-	19,742	1,517	23,453
Right-of-use assets	18	710	-	-	8	-	736
Revaluations and impairments recognised in other comprehensive	-	-	-	4,078	-	-	4,078
Depreciation and amortisation	-	(130)	(2,055)	-	(6,767)	(726)	(9,678)
Depreciation on right-of-use assets	(40)	(27,493)	-	-	(45)	-	(27,578)
Other movements	-	77	234	-	(311)	-	-
Disposals							
Other	-	-	-	-	(197)	-	(197)
Total as at 30 June 2022	1,891	270,020	19,047	7,274	51,836	1,715	351,783

	Land $'000	Buildings $'000	Leasehold improvements[1] $'000	Heritage and cultural[2] $'000	Plant and equipment $'000	Computer Software $'000	Total $'000
Total as at 30 June 2022 represented by							
Gross book value	2,018	352,428	23,158	7,274	64,584	4,806	454,268
Accumulated depreciation, amortisation and impairment	(127)	(82,408)	(4,111)	-	(12,748)	(3,091)	(102,485)
Total as at 30 June 2022	1,891	270,020	19,047	7,274	51,836	1,715	351,783
Carrying amount of right-of-use assets[3]	715	269,730	-	-	39	-	270,484

1. The above table discloses property, plant and equipment not subject to operating leases.

2. Land, buildings and other property, plant and equipment that met the definition of a heritage and cultural item were disclosed in the heritage and cultural asset class.

3. The carrying amount of right-of-use assets included in the total as at 30 June 2022.

Geoscience Australia has no significant property, plant and equipment and intangibles disposals expected within the next 12 months.

Revaluations of non-financial assets and intangible assets

All revaluations were conducted by an independent valuer in accordance with the revaluation policy stated at Note 6.3. Refer to Note 6.3 for the fair value measurement.

Asset class	Comprehensive valuation date	Valuation type June 2022
Land	30/06/2020	Materiality review
Buildings	30/06/2020	Materiality review
Leasehold improvements	30/06/2020	Materiality review
Heritage and cultural	30/06/2022	Comprehensive valuation
Plant and equipment	30/06/2020	Materiality review

Contractual commitments for the acquisition of property, plant, equipment and intangible assets

Total commitments for property, plant, equipment and intangible assets were $11,076,373 (2021: $5,984,419).

Reconciliation of the opening and closing balances of property, plant and equipment that are subject to operating leases for 2022

	Land $'000	Buildings $'000	Leasehold improvements[1] $'000	Heritage and cultural $'000	Plant and equipment $'000	Computer Software $'000	Total $'000
As at 1 July 2021							
Gross book value	-	-	1,953	-	-	-	1,953
Accumulated depreciation, amortisation and impairment	-	-	(160)	-	-	-	(160)
Total as at 1 July 2021	-	-	1,793	-	-	-	1,793
Additions							
Purchase or internally developed	-	-	185	-	-	-	185
Depreciation and amortisation	-	-	(174)	-	-	-	(174)
Total as at 30 June 2022	-	-	1,804	-	-	-	1,804
Total as at 30 June 2022 represented by							
Gross book value	-	-	2,138	-	-	-	2,138
Accumulated depreciation, amortisation and impairment	-	-	(334)	-	-	-	(334)
Total as at 30 June 2022	-	-	1,804	-	-	-	1,804

1. 1,540m2 of the Symonston building leasehold fit-out (25,000m2) was sub-leased for the full year.

Accounting Policy

Assets are recorded at cost on acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred in exchange and liabilities undertaken. Assets are initially measured at their fair value plus transaction costs where appropriate.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and income at their fair value at the date of acquisition, unless acquired as a consequence of restructuring of administrative arrangements. In the latter case, assets are initially recognised as contributions by owners at the amounts at which they were recognised in the transferor's accounts immediately prior to the restructuring.

Tangible Assets

Asset Recognition Threshold
Purchases of leasehold improvements and plant and equipment are recognised initially at cost in the Statement of financial position, except for assets costing less than the relevant asset recognition threshold, which are expensed in the year of acquisition (other than where they form part of a group of similar items which are significant in total). Asset recognition thresholds can be found in the table below.

The initial cost of an asset includes an estimate of the cost of dismantling and removing the item and restoring the site on which it is located. These costs are included in the relevant asset class with a corresponding provision for the 'make good' recognised.

Lease Right-of-Use (ROU) Assets
Leased ROU assets are capitalised at the commencement date of the lease and comprise the initial lease liability amount, initial direct costs incurred when entering into the lease less any lease incentives received. These assets are accounted for as separate asset classes to corresponding assets owned outright, but are included in the same column where the corresponding underlying assets would be presented if they were owned.

On initial adoption of AASB 16 Geoscience Australia adjusted the ROU assets at the date of initial application by the amount of any provision for onerous leases recognised immediately before the date of initial application. Following initial application, an impairment review is undertaken for any right-of-use lease asset that shows indicators of impairment and an impairment loss is recognised against any right-of-use lease asset that is impaired. Lease ROU assets continue to be measured at cost after initial recognition.

Revaluations
Following initial recognition at cost, property, plant and equipment (excluding ROU assets) are carried at fair value (or an amount not materially different from fair value) less subsequent accumulated depreciation and accumulated impairment losses. Valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets did not differ materially from the assets' fair values as at the reporting date. The regularity of independent valuations depended upon the volatility of movements in market values for the relevant assets.

Revaluation adjustments are made on a class basis. Any revaluation increment is credited to equity under the heading of asset revaluation reserve except to the extent that it reversed a previous revaluation decrement of the same asset class that was previously recognised in the surplus/deficit. Revaluation decrements for a class of assets are recognised directly in the surplus/deficit except to the extent that they reversed a previous revaluation increment for that class.
Any accumulated depreciation as at the revaluation date is eliminated against the gross carrying amount of the asset and the asset restated to the revalued amount.

Depreciation
Depreciable property, plant and equipment assets are written-off to their estimated residual values over their estimated useful lives to the entity using, in all cases, the straight-line method of depreciation. Leasehold improvements are amortised on a straight-line basis over the lesser of the estimated useful life of the improvements and the unexpired period of the lease.

Depreciation rates (useful lives), residual values and methods are reviewed at each reporting date and necessary adjustments are recognised in the current, or current and future reporting periods, as appropriate.

The depreciation rates for ROU assets are based on the commencement date to the earlier of the end of the useful life of the ROU asset or the end of the lease term.

Depreciation rates applying to each class of depreciable asset are based on the following useful lives and methods:

	Threshold		**Useful lives**	
Asset Type	**2022**	2021	**2022**	2021
Building on freehold land	**N/A**	N/A	**40 years**	40 years
Leasehold improvements	**$25,000**	$25,000	**7 - 15 years**	7 - 15 years
Plant and equipment	**$5,000**	$5,000	**3 - 25 years**	3 - 25 years
Collections	**$5,000**	$5,000	**Indefinite**	Indefinite

Impairment
All assets were assessed for impairment at 30 June 2022. Where indications of impairment exist, the asset recoverable amount is estimated and an impairment adjustment made if the asset recoverable amount is less than its carrying amount.
The recoverable amount of an asset is the higher of its fair value less costs of disposal and its value in use. Value in use is the present value of the future cash flows expected to be derived from the asset. Where the future economic benefit of an asset is not primarily dependent on the asset's ability to generate future cash flows, and the asset would be replaced if the entity were deprived of the asset, its value in use is taken to be its depreciated replacement cost.

Derecognition
An item of property, plant and equipment is derecognised upon disposal or when no further future economic benefits are expected from its use or disposal.

Intangible Assets

Geoscience Australia's intangible assets comprise of software. Software assets are carried at cost less accumulated amortisation and accumulated impairment losses, except for assets costing less than the relevant asset recognition threshold.

	Threshold		Useful lives	
Intangible Asset Type	**2022**	2021	**2022**	2021
Purchased software	**$10,000**	$10,000	**3 - 15 years**	3 - 15 years
Internally developed software	**$200,000**	$200,000	**3 - 15 years**	3 - 15 years

All software assets were assessed for indicators of impairment at 30 June 2022.

Heritage and Cultural Assets

The key objective of Geoscience Australia's collection is to maintain geoscience knowledge and capability. Geoscience Australia's heritage and cultural assets comprise:
- a collection of minerals which are primarily held for research, public exhibition and education; and
- the Commonwealth Paleontological Collection (CPC) – which includes internationally recognised reference specimens used to define fossil species under the International Codes of Botanical and Zoological Nomenclature. Such assets are irreplaceable and have indefinite useful lives as a reference, for further research as well as outreach activities.

Geoscience Australia's collections management and preservation policy is available on our website:
https://www.ga.gov.au/data-pubs/nmfc

The Geoscience Australia museum is registered as a Deductible Gift Recipient and the Cultural Gifts Program.

Collections not recognised as assets
Through the process of national geological mapping, both onshore and in Australia's marine jurisdiction, and the national stewardship of cores, cuttings, and other samples and data submitted to Geoscience Australia under the *Petroleum Search Subsidy Act [PSSA] 1957-1961*, *Petroleum [Submerged Lands] Act 1967 amended*, and the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*, Geoscience Australia has diverse and comprehensive geoscience collections used for scientific research and analysis purposes. The collections have been acquired since the inception of Geoscience Australia's forerunner organisation, the Bureau of Mineral Resources, Geology and Geophysics, in 1946.

The rock and core collections include:
- geological reference samples of surface rock and cores collected during the mapping of Australia;
- physical cores and cuttings samples from offshore petroleum wells and stratigraphic boreholes; and
- oil, gas and other fluid samples submitted under the various petroleum legislations.

Numerous data collections are maintained including fundamental types such as:
- two and three dimensional seismic and non-seismic geophysical data;
- satellite earth observation data;
- geospatial data particularly geodetic data for positioning purposes; and
- elevation and bathymetry.

The bulk fossil collection:
Palaeontological specimens collected and donated which are unprocessed from both Australia and overseas.
These are national, and in some cases international collections that have enduring scientific value for the nation.

These collections are deemed irreplaceable, with an indefinite useful life. They are not recognised as assets of Geoscience Australia as their value is not reliably measureable.

3.2B: Transfers to acquire or construct a non-financial asset

	Closing balance $'000	Opening balance $'000
Accrued revenue	-	58

During the reporting period, other income of $332,995 (2021: $475,000) was a result of acquiring or constructing non-financial assets to be controlled by Geoscience Australia. No liabilities existed in relation to these transfers at reporting date (2021: nil).

Geoscience Australia satisfies its obligations under these transfers and recognises revenue when it controls the asset, typically as the asset is constructed or when the asset acquired has been received.

3.3 Payables

	2022 $'000	2021 $'000
3.3A: Suppliers		
Trade creditors	279	491
Accruals	11,365	9,188
Total suppliers	11,644	9,679

Settlement terms for suppliers are 5 calendar days for electronic invoicing (eInvoicing) through the Pan-European Public Procurement On-Line framework and 20 calendar days for all other invoices, unless shorter maximum payment terms are agreed upon (2021: 20 days).

3.3B: Other payables		
Salaries and wages	2,144	1,814
Superannuation	272	213
Separations and redundancies	105	-
Unearned income from contracts with customers[1]	27,409	32,100
Other	300	128
Total other payables	30,230	34,255

1. Consideration that has been received from the customer but services are yet to be performed.

Refer Notes 3.1B, 3.1C and 3.2B for information relating to contract assets from contracts with customers.

3.4 Interest Bearing Liabilities

	2022 $'000	2021 $'000
3.4A: Leases		
Lease liabilities	**285,497**	307,596
Total leases	**285,497**	307,596
Maturity analysis - contractual undiscounted cash flows		
Within 1 year	**27,372**	26,553
Between 1 to 5 years	**116,592**	112,898
More than 5 years	**160,292**	190,601
Total leases	**304,256**	330,052

Total cash outflow for leases for the year ended 30 June 2022 was $26.6 million (2021: $25.8 million) including short-term leases $0.013 million (2021: $0.086 million).

Geoscience Australia's significant leasing arrangement is for office accommodation at Symonston ACT. This lease expires on 31 May 2032 and rent payable has a 3% annual increase. Refer to Note 1.2B in relation to the sublease arrangements. Geoscience Australia has other lease arrangements including the Satellite Laser Ranging Station at Yarragadee, WA, the Alice Springs satellite ground station and motor vehicles used in field work.

Geoscience Australia in its capacity as lessee uses small parcels of land across Australia to accommodate ground station infrastructure. These arrangements are generally below market terms, often for nil consideration and have been accounted for at cost. The leases are restricted to a permitted use of collecting and communicating geoscientific and geospatial information.

The above lease disclosures should be read in conjunction with the accompanying notes 1.1B, 1.1C, 1.2B, and 3.2A.

Accounting Policy
Geoscience Australia has elected to recognise right-of-use assets and lease liabilities for all leases with a term of more than 12 months and of value over $10,000.

For all new contracts entered into, Geoscience Australia considers whether the contract is or contains a lease. A lease is defined as 'a contract, or part of a contract, that conveys the right to use an asset (the underlying asset) for a period of time in exchange for consideration'.

Once it has been determined that a contract is, or contains a lease, the lease liability is initially measured at the present value of the lease payments unpaid at the commencement date, discounted using the interest rate implicit in the lease, if that rate is readily determinable, or the department's incremental borrowing rate.

Subsequent to initial measurement, the liability will be reduced for payments made and increased for interest. It is remeasured to reflect any reassessment or modification to the lease. When the lease liability is remeasured, the corresponding adjustment is reflected in the right-of-use asset or profit and loss depending on the nature of the reassessment or modification.

3.5 Other Provisions

3.5A: Other provisions

	Other[1] $'000	Provision for restoration[2] $'000	Total $'000
As at 1 July 2021	505	3,390	3,895
Additional provisions made	160	184	344
Amounts used	(10)	-	(10)
Finance costs - unwinding of discount	-	51	51
Change in discount rate	-	(53)	(53)
Total as at 30 June 2022	655	3,572	4,227

1. Other provisions includes a provision for building painting required every seven years under the lease agreement $593,190 (2021: $494,325) and a building works retention $61,827 (2021: $9,373). Repainting is planned during 2024 and the retention will be paid in 2023.

2. Geoscience Australia has contractual obligations to remove leasehold improvements and restore leased sites upon vacating. The Symonston office building lease expires in May 2032 and timing of ground station site restoration will depend upon the individual lease; the majority of ground station site restoration will be in more than 20 years. The provision reflects the present value of these obligations.

There are no expected reimbursements or associated receivables in relation to Other Provisions.

Accounting Judgements and Estimates

Restoration of revalued non-financial assets has been estimated by the independent valuer stated in Note 6.3. Restoration of the ground station sites was based on an estimate of the present expenditure to restore the site, adjusted using building price indices and government bond rates.

The provision for building painting has been estimated based on historical cost adjusted by CPI.

Funding

This section identifies Geoscience Australia's funding structure.

4.1 Appropriations

4.1A: Annual appropriations ('recoverable GST exclusive')

Annual Appropriations for 2022

	Annual Appropriation $'000	Adjustments to appropriation[1] $'000	Total appropriation $'000	Appropriation applied in 2022 (current and prior years) $'000	Variance[2] $'000
Departmental					
Ordinary annual services	260,028	31,983	292,011	236,881	55,130
Capital Budget[3]	4,583	-	4,583	4,583	-
Other services					
Equity Injections	9,486	-	9,486	12,932	(3,446)
Total departmental	274,097	31,983	306,080	254,396	51,684
Administered					
Ordinary annual services					
Administered items	19	-	19	-	19
Total administered	19	-	19	-	19

1. Current year annual appropriations adjustments include PGPA Act section 74 receipts $31.959 million and PGPA Act section 75 transfers from Digital Transformation Agency $0.024 million.
2. Departmental ordinary annual services variance is due to delays in implementation of the Satellite Based Augmentation System measure. Equity injection variance is due to additions from prior year equity injections. Administered variance is due to COVID-19 restrictions on overseas travel.
3.Departmental and Administered Capital Budgets are appropriated through Appropriation Acts (No.1,3,5). They form part of ordinary annual services and are not separately identified in the Appropriation Acts. The Portfolio Budget Statements included a Departmental Capital Budget of $4.583 million.

Annual Appropriations for 2021

	Annual Appropriation $'000	Adjustments to appropriation[1 2] $'000	Total appropriation $'000	Appropriation applied in 2021 $'000	Variance[3] $'000
Departmental					
Ordinary annual services	203,490	38,883	242,373	207,636	34,737
Capital Budget[4]	4,605	-	4,605	4,605	-
Other services					
Equity Injections	17,589	-	17,589	3,981	13,608
Total departmental	225,684	38,883	264,567	216,222	48,345
Administered					
Ordinary annual services					
Administered items	19	19	38	-	38
Total administered	19	19	38	-	38

1. Annual departmental appropriations include $40.169 million withheld under section 51 of the PGPA Act; $32.254 million for Ordinary annual services and Equity Injections of $7.915 million.
2. Ordinary annual services is adjusted by the receipt of amounts under PGPA Act section 74.
3. The departmental variance is due to the section 51 withholding of departmental appropriations[1] and National Positioning Infrastructure Capability (NPIC) program delays. Administered variance is due to COVID-19 restrictions on overseas travel.
4. Departmental and Administered Capital Budgets are appropriated through Appropriation Acts (No.1,3,5). They form part of ordinary annual services and are not separately identified in the Appropriation Acts. Portfolio Budget Statements included $4.605 million.

4.1B: Unspent annual appropriations ('recoverable GST exclusive')

	2022 $'000	2021 $'000
Departmental		
Appropriation Act (No. 1) 2018-2019[14]	-	10,812
Appropriation Act (No. 2) 2018-2019[14]	-	8,106
Supply Act (No. 1) 2019-2020[13]	20,879	20,879
Supply Act (No. 2) 2019-2020[13]	708	2,554
Appropriation Act (No. 2) 2019-2020[13]	11,273	11,273
Supply Act (No. 1) 2020-2021[1]	32,254	32,254
Appropriation Act (No. 1) 2020-2021[2]	-	51,377
Appropriation Act (No. 1) 2020-2021 - Cash on hand	-	336
Supply Act (No. 2) 2020-2021[1]	7,915	10,261
Appropriation Act (No. 2) 2020-2021	211	7,328
Appropriation Act (No. 1) 2021-2022	106,286	-
Appropriation Act (No. 2) 2021-2022	7,863	-
Appropriation Act (No. 1) 2021-2022 - Cash on hand	766	-
Total departmental	188,155	155,180
Administered		
Supply Act (No. 1) 2019-2020[3]	8	8
Appropriation Act (No. 1) 2019-2020[3]	11	11
Supply Act (No. 1) 2020-2021	12	12
Appropriation Act (No. 1) 2020-2021	7	7
Appropriation Act (No. 1) 2021-2022	19	-
Total administered	57	38

1. Unspent annual appropriations include $91.947 million withheld under section 51 of the PGPA Act from prior years (Ordinary annual services $63.945 million and Equity Injections $28.002 million).

2. Prior years unspent appropriations adjustments under section 74 of the PGPA Act: Appropriation Act No.1 $0.144 million.

3. Appropriation Acts for 2019-2020 will lapse on 1 July 2022 in accordance with the repeal clause of the Appropriation Act.

4. Appropriations Acts for 2018-2019 lapsed on 1 July 2021 in accordance with the repeal clause of the Appropriation Act.

4.2 Net Cash Appropriation Arrangements

	2022 $'000	2021 $'000
Total comprehensive income/(loss) - as per the Statement of comprehensive income	**54,306**	(10,533)
Plus : depreciation/amortisation of assets funded through appropriations (departmental capital budget funding and/or equity injections)[1]	**9,678**	9,051
Plus : depreciation of right-of-use assets[2]	**27,578**	27,539
Less : lease principal repayments[2]	**(22,894)**	(21,810)
Net Cash Operating Surplus/ (Deficit)	**68,668**	4,247

1. From 2010-11, the Government introduced net cash appropriation arrangements where revenue appropriations for depreciation/amortisation expenses of non-corporate Commonwealth entities and selected corporate Commonwealth entities were replaced with a separate capital budget provided through equity appropriations. Capital budgets are to be appropriated in the period when cash payment for capital expenditure is required.

2. The inclusion of depreciation/amortisation expenses related to ROU leased assets and the lease liability principal repayment amount reflects the impact of AASB 16 Leases, which does not directly reflect a change in appropriation arrangements.

People and relationships

This section describes a range of employment and post employment benefits provided to our people and our relationships with other key people.

5.1 Employee Provisions

	2022 $'000	2021 $'000
5.1A: Employee provisions		
Leave	26,458	26,182
Other	392	-
Total employee provisions	26,850	26,182

Accounting policy

Liabilities for short-term employee benefits and termination benefits expected within twelve months of the end of reporting period are measured at their nominal amounts.

Other long-term employee benefits are measured as net total of the present value of the defined benefit obligation at the end of the reporting period minus the fair value at the end of the reporting period of plan assets (if any) out of which the obligations are to be settled directly.

Leave

The liability for employee benefits includes provision for annual leave and long service leave.

The leave liabilities are calculated on the basis of employees' remuneration at the estimated salary rates that will be applied at the time the leave is taken, including the entity's employer superannuation contribution rates to the extent that the leave is likely to be taken during service rather than paid out on termination.

The liability for long service leave has been determined by the 'shorthand method' outlined in the Resource Management Guide No. 125 - Commonwealth Entities Financial Statements Guide and the recommended probability factors have been applied, along with a discount factor which is the combination of a salary growth rate and the Government 10 year bond rate. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

Separation and Redundancy

Provision is made for separation and redundancy benefit payments. The entity recognises a provision for termination when it has developed a detailed formal plan for the terminations and has informed those employees affected that it will carry out the terminations.

Superannuation

Geoscience Australia's staff are members of the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS), or the PSS accumulation plan (PSSap), or other superannuation funds held outside the Australian Government.

The CSS and PSS are defined benefit schemes for the Australian Government. The PSSap is a defined contribution scheme.

The liability for defined benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course. This liability is reported in the Department of Finance's administered schedules and notes.

Geoscience Australia makes employer contributions to the employees' defined benefit superannuation scheme at rates determined by an actuary to be sufficient to meet the current cost to the Government. Geoscience Australia accounts for the contributions as if they were contributions to defined contribution plans.

The liability for superannuation recognised as at 30 June represents outstanding contributions.

5.2 Key Management Personnel Remuneration

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of Geoscience Australia, directly or indirectly, including any director (whether executive or otherwise) of Geoscience Australia. Geoscience Australia has determined the key management personnel to be the Chief Executive Officer, Chiefs of Division and Chief Scientist. Key management personnel remuneration is reported in the table below:

	2022 $'000	2021 $'000
Short-term employee benefits	**1,523**	1,598
Post-employment benefits	**263**	290
Other long-term employee benefits	**33**	23
Total key management personnel remuneration expenses[1]	**1,819**	1,911

Five key management personnel are included in the table above (2021: six key management personnel). The reduction in KMP was due to a change in governance arrangements during 2020-21.

1. The above key management personnel remuneration excludes the remuneration and other benefits of the Portfolio Minister. The Portfolio Minister's remuneration and other benefits are set by the Remuneration Tribunal and are not paid by Geoscience Australia.

5.3 Related Party Disclosures

Related party relationships:

Geoscience Australia is an Australian Government controlled entity. Geoscience Australia's related parties are Key Management Personnel including the Portfolio Minister and Executive, and other Australian Government entities.

Transactions with related parties:

Given the breadth of Government activities, related parties may transact with the government sector in the same capacity as ordinary citizens. Such transactions include the payment or refund of taxes, receipt of a Medicare rebate or higher education loans. These transactions have not been separately disclosed in this note.

There are no transactions with Key Management Personnel (KMP) besides remuneration disclosed in Note 5.2 and travel allowances paid in the ordinary course of business.

Geoscience Australia transacts with other Australian Government controlled entities consistent with normal day-to-day business operations provided under normal terms and conditions, including provision of advice and other services, payment of workers compensation, insurance premiums and superannuation[1]. Giving consideration to relationships with related entities, and transactions entered into during the reporting period by Geoscience Australia, it has been determined that there are no related party transactions to be separately disclosed.

There are no related party transactions by Ministers requiring disclosure by Geoscience Australia in 2022 (2021: nil).

1. Refer to Note 5.1 Employee Provisions for details on superannuation arrangements with the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS), and the PSS accumulation plan (PSSap).

Managing uncertainties

This section analyses how Geoscience Australia manages financial risks within its operating environment.

6.1A: Contingent assets and liabilities

	2022 $'000	2021 $'000
Contingent assets		
Balance from previous period	506	76
New contingent assets recognised	-	172
Re-measurement	-	258
Assets realised	(506)	-
Total contingent assets	-	506

There are no contingent liabilities in 2022 (2021: nil).

Accounting Policy

Contingent liabilities and contingent assets are not recognised in the Statement of financial position but are reported in the notes. They may arise from uncertainty as to the existence of a liability or asset or represent an asset or liability in respect of which the amount cannot be reliably measured. Contingent assets are disclosed when settlement is probable but not virtually certain and contingent liabilities are disclosed when settlement is greater than remote.

6.1B: Administered - contingent assets and liabilities

There are no Administered contingent assets or liabilities in 2022 (2021: nil).

6.2 Financial Instruments

	2022 $'000	2021 $'000
6.2A: Categories of financial instruments		
Financial assets at amortised cost		
Cash at bank	766	336
Trade, contract and lease receivables	7,815	9,649
Total financial assets at amortised cost	8,581	9,985
Total financial assets	8,581	9,985
Financial Liabilities		
Financial liabilities measured at amortised cost		
Trade creditors and accruals	11,644	9,679
Total financial liabilities measured at amortised cost	11,644	9,679
Total financial liabilities	11,644	9,679

Accounting Policy

Geoscience Australia classified its financial assets in the following categories:

a) financial assets at fair value through profit or loss;
b) financial assets at fair value through other comprehensive income; and
c) financial assets measured at amortised cost.

The classification depends on both Geoscience Australia's business model for managing the financial assets and contractual cash flow characteristics at the time of initial recognition.

Financial assets are recognised when Geoscience Australia becomes a party to the contract and, as a consequence, has a legal right to receive or a legal obligation to pay cash and derecognised when the contractual rights to the cash flows from the financial asset expire or are transferred upon trade date.

Impairment of Financial Assets

Financial assets are assessed for impairment at the end of each reporting period based on Expected Credit Losses, using the general approach which measures the loss allowance based on an amount equal to *lifetime expected credit losses* where risk has significantly increased, or an amount equal to *12-month expected credit losses* if risk has not increased.

The simplified approach for trade, contract and lease receivables is used. This approach always measures the loss allowance as the amount equal to the lifetime expected credit losses.

A write-off constitutes a derecognition event where the write-off directly reduces the gross carrying amount of the financial asset.

Financial liabilities

Financial liabilities are classified as either financial liabilities 'at fair value through profit or loss' or other financial liabilities.

Financial liabilities are recognised and derecognised upon 'trade date'. Supplier payables are recognised at amortised cost.

Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

6.2B: Net gains or losses on financial assets		
Financial assets at amortised cost		
Exchange gains/(losses)	1	(5)
Impairment	(34)	-
Net gains/(losses) on financial assets at amortised cost	(33)	(5)
Net gains on financial assets	(33)	(5)

6.3 Fair Value Measurement

6.3A: Fair value measurement

	Fair value measurements at the end of the reporting period	
	2022 $'000	2021 $'000
Non-financial assets		
Land[4]	1,165	1,165
Building[5]	287	308
Leasehold Improvements[5]	17,769	19,127
Infrastructure, Plant and Equipment[2]	8,526	7,019
Infrastructure, Plant and Equipment[5]	17,533	19,774
Heritage and Cultural Collection[2]	5,574	2,769
Heritage and Cultural Collection (CPC Collection)[4]	1,700	200
Work in Progress - Land[4]	11	-
Work in Progress - Building[5]	3	35
Work in Progress - Leasehold Improvements[3]	3,082	1,351
Work in Progress - Infrastructure, Plant & Equipment[3]	25,738	12,537
Work in Progress - Heritage and Cultural Collection[3]	-	227
Total fair value measurements of assets in the Statement of Financial Position	81,388	64,512

1. Heritage and Cultural Collection underwent a comprehensive valuation and all other non-financial asset classes underwent a materiality assessment by an independent valuer Colliers International (ACT) Pty Ltd as at 30 June 2022 (2021: All non-financial asset classes underwent a materiality assessment by an independent valuer Public Private Property). Geoscience Australia has relied upon those outcomes to establish carrying amounts.

2. Valuation technique used: Level 2 - Market Approach
3. Valuation technique used: Level 2 - Replacement Cost
4. Valuation technique used: Level 3 - Market Approach
5. Valuation technique used: Level 3 - Depreciated Replacement Cost

Accounting Policy
An annual assessment is undertaken to determine whether the carrying amount of the assets is materially different from the fair value. Comprehensive formal valuations are carried out at least once every three years for all non-financial assets classes, with the exception of right-of-use assets.
The valuation models developed by the valuer are in compliance with AASB 13. The methods utilised to determine and substantiate the unobservable inputs are derived and evaluated as follows:
Physical depreciation and obsolescence - Assets that do not transact with enough frequency or transparency to develop objective opinions of value from observable market evidence have been measured utilising the Depreciated Replacement Cost approach. Under this approach the estimated cost to replace the asset is calculated and then adjusted to take into account physical depreciation and obsolescence. Physical depreciation and obsolescence has been determined based on professional judgement regarding physical, economic and external obsolescence factors relevant to the asset under consideration. For all leasehold improvement assets, the consumed economic benefit / asset obsolescence deduction is determined based on the term of the associated lease.
Geoscience Australia's policy is to recognise transfers into and transfers out of fair value hierarchy levels as at the end of the reporting period.

Other information

7.1 Current/non-current distinction for assets and liabilities

7.1A: Current/non-current distinction for assets and liabilities

	2022 $'000	2021 $'000
Assets expected to be recovered in:		
No more than 12 months		
Cash and cash equivalents	766	336
Trade and other receivables	126,389	76,079
Accrued revenue	3,271	1,957
Prepayments	5,692	3,543
Total no more than 12 months	136,118	81,915
More than 12 months		
Trade and other receivables	432	351
Land	1,891	1,902
Buildings	270,020	296,856
Leasehold improvements	20,851	20,478
Heritage and cultural	7,274	3,196
Plant and equipment	51,836	39,406
Computer software	1,715	924
Prepayments	141	34
Total more than 12 months	354,160	363,147
Total assets	490,278	445,062
Liabilities expected to be settled in:		
No more than 12 months		
Suppliers	11,644	9,679
Other payables	29,545	33,502
Leases	23,945	22,841
Employee provisions	7,857	7,125
Other provisions	62	10
Total no more than 12 months	73,053	73,157
More than 12 months		
Other payables	685	753
Leases	261,552	284,755
Employee provisions	18,993	19,057
Other provisions	4,165	3,885
Total more than 12 months	285,395	308,450
Total liabilities	358,448	381,607

7.2 Restructuring

7.2A: Restructuring

	2022 National Map Digital Transformation Agency[1]	2021
	$'000	$'000
FUNCTIONS ASSUMED		
Assets recognised		
Appropriations receivables	24	-
Total assets recognised	24	-
Net assets/(liabilities) recognised[2]	24	-
Income assumed		
Recognised by the receiving entity	24	-
Total income assumed	24	-

1. The National Map function was assumed by Geoscience Australia from Digital Transformation Agency during 2021-22 as a result of the Prime Minister's letter dated 5 July 2021.

2. In respect of functions assumed, the net book values of assets and liabilities were transferred to the entity for no consideration.

Appendices

Appendix 1: Financial summary

Table 5.1 Entity resource statement 2021–22.

	Actual available appropriation for 2021–22 $'000 (a)	Payments made 2021–22 $'000 (b)	Balance remaining 2021–22 $'000 (a) – (b)
Departmental			
Annual appropriations – ordinary annual services[1]	362,032	254,980	107,052
Annual appropriations – other services – non-operating[2]	21,007	12,933	8,074
Total departmental annual appropriations	383,039	267,913	115,126
Departmental special appropriation	0	0	0
Total special appropriations	0	0	0
Special account	0	0	0
Total special accounts	0	0	0
less departmental appropriations drawn from annual/special appropriations and credited to special accounts	0	0	0
Total departmental resourcing	383,039	267,913	115,126
Administered			
Annual appropriations – ordinary annual services[1]	57	0	57
Annual appropriations – other services – non-operating[2]	0	0	0
Annual appropriations – other services – specific payments to states, ACT, NT and local government	0	0	0
Annual appropriations – other services – new administered expenses	0	0	0
Total administered annual appropriations	57	0	57

	Actual available appropriation for 2021–22 $'000 (a)	Payments made 2021–22 $'000 (b)	Balance remaining 2021–22 $'000 (a) – (b)
Administered special appropriations	0	0	0
Total administered special appropriations	0	0	0
Special account	0	0	0
Total special accounts receipts	0	0	0
less administered appropriations drawn from annual/special appropriations and credited to special accounts	0	0	0
less payments to corporate entities from annual/special appropriations	0	0	0
Total administered resourcing	57	0	57
Total resourcing and payments for Geoscience Australia	383,096	267,913	115,183

1 Departmental ordinary annual appropriations includes Appropriation Act (No. 1) 2021–22, unspent prior year appropriations and PGPA Act section 74 receipts and section 75 transfers. Administered annual appropriations includes Appropriation Act (No. 1) 2021–22 and unspent prior year appropriations.

2 Appropriation Act (No. 2) 2021–22 and unspent prior years' appropriations.

Table 5.2 Expenses by outcome.

Outcome 1: Informed government, industry and community decisions on the economic, social and environmental management of the nation's natural resources through enabling access to geoscientific and spatial information.	Budget* 2021–22 $'000 (a)	Actual expenses 2021–22 $'000 (b)	Variation 2021–22 $'000 (a) – (b)
Program 1: Geoscientific and Spatial Information Services			
Administered expenses			
Ordinary annual services (Appropriation Act No. 1)	19	0	19
Other services (Appropriation Act Nos. 2, 4 and 6)	0	0	0
s74 external revenue[1]	0	0	0
Special appropriations	0	0	0
Special accounts	0	0	0
Payments to corporate entities	0	0	0
Expenses not requiring appropriation in the Budget year[2]	0	0	0
Administered total	19	0	19
Departmental expenses			
Departmental appropriation	260,028	195,215	64,813
s74 external revenue[1]	55,614	35,250	20,364
Special appropriations	0	0	0
Special accounts	0	0	0
Expenses not requiring appropriation in the Budget year[2]	14,974	14,683	291
Departmental total	330,616	245,148	85,468
Total expenses for Program 1	330,635	245,148	85,487
Outcome 1 totals by appropriation type			
Administered expenses			
Ordinary annual services (Appropriation Act Nos. 1, 3 and 5)	19	0	19
Other services (Appropriation Bill Nos. 2, 4 and 6)	0	0	0
s74 external revenue[1]	0	0	0
Special appropriations	0	0	0
Special accounts	0	0	0
Payments to corporate entities	0	0	0
Expenses not requiring appropriation in the Budget year[2]	0	0	0
Administered total	19	0	19

Outcome 1: Informed government, industry and community decisions on the economic, social and environmental management of the nation's natural resources through enabling access to geoscientific and spatial information.	Budget* 2021–22 $'000 (a)	Actual expenses 2021–22 $'000 (b)	Variation 2021–22 $'000 (a) – (b)
Departmental expenses			
Departmental appropriation	260,028	195,215	64,813
s74 external revenue[1]	55,614	35,250	20,364
Special appropriations	0	0	0
Special accounts	0	0	0
Expenses not requiring appropriation in the Budget year[2]	14,974	14,683	291
Departmental total	330,616	245,148	85,468
Total expenses for Outcome 1	330,635	245,148	85,487

	Budget 2021–22	Actual 2021–22	
Average staffing level (number)	600	592	

*Full-year budget.

1 Estimated expenses incurred in relation to receipts retained under section 74 of the PGPA Act.

2 Expenses not requiring appropriation in the Budget year are made up of depreciation expenses, amortisation expenses, make good expenses, audit fees, offset by lease principal repayments.

Appendix 2: Audit and Risk Committee membership

Table 5.3 Audit and Risk Committee membership.

Member name	Qualifications, knowledge, skills or experience (including formal and informal, as relevant)	Number of meetings attended/ total number of meetings	Total annual remuneration ($ inc. GST)	Additional information
Brad Medland	Chartered Accountant with over 26 years of experience, including 8 years in the private sector and 18 years in the public sector in senior finance roles. Qualified Chartered Accountant New Zealand and Australia (1995) Bachelor of Economics, Australian National University (1995)	3/3	0	Resigned as Chair on 1 March 2022
Vanessa Graham	Certified Practising Accountant with over 25 years of experience in the public sector and 20 years in senior finance roles. Certified Practising Accountant (2003) Fellow Practising Accountant (2015)	1/1	0	Commenced as Chair on 9 March 2022
David Dawes	Retired senior ACT public servant and business owner with a broad business background. Provides a high-level strategic risk overview and broad understanding of the operation of a medium-sized government entity.	3/4	3,300	
Carol Lilley	Significant experience as an independent director and audit committee chair or member over the past 12 years, with 25+ years of providing governance advice on financial statements, risks and control frameworks, systems, processes and controls. Currently serving on a range of Commonwealth Government audit committees including for the Department of the Prime Minister and Cabinet, the Department of Home Affairs, Services Australia, the Australian Federal Police and Austrade. Bachelor of Commerce (University of Western Australia) Graduate of the Australian Institute of Company Directors Fellow of the Institute of Chartered Accountants Certified Internal Auditor	4/4	11,264	

Appendix 3: Workforce statistics

All employees

Table 5.4 All ongoing employees, current reporting period (2021–22).

Location	Male			Female			Indeterminate			Total
	Full time	Part time	Total	Full time	Part time	Total	Full time	Part time	Total	
NSW	0	0	0	0	0	0	0	0	0	0
Qld	0	0	0	0	0	0	0	0	0	0
SA	0	0	0	0	0	0	0	0	0	0
Tas	0	0	0	0	0	0	0	0	0	0
Vic	0	0	0	0	0	0	0	0	0	0
WA	5	0	5	0	0	0	0	0	0	5
ACT	325	10	335	214	21	235	0	0	0	570
NT	0	1	1	0	0	0	0	0	0	1
External territories	0	0	0	0	0	0	0	0	0	0
Overseas	0	0	0	0	0	0	0	0	0	0
Total	330	11	341	214	21	235	0	0	0	576

Table 5.5 All non-ongoing employees, current reporting period (2021–22).

Location	Male			Female			Indeterminate			Total
	Full time	Part time	Total	Full time	Part time	Total	Full time	Part time	Total	
NSW	0	0	0	0	0	0	0	0	0	0
Qld	0	0	0	0	0	0	0	0	0	0
SA	0	0	0	0	0	0	0	0	0	0
Tas	0	0	0	0	0	0	0	0	0	0
Vic	0	0	0	0	0	0	0	0	0	0
WA	0	0	0	0	0	0	0	0	0	0
ACT	27	2	29	23	10	33	0	0	0	62
NT	0	0	0	0	0	0	0	0	0	0
External territories	0	0	0	0	0	0	0	0	0	0
Overseas	0	0	0	0	0	0	0	0	0	0
Total	27	2	29	23	10	33	0	0	0	62

Table 5.6 All ongoing employees, previous reporting period (2020–21).

Location	Male			Female			Indeterminate			Total
	Full time	Part time	Total	Full time	Part time	Total	Full time	Part time	Total	
NSW	0	0	0	0	0	0	0	0	0	0
Qld	0	0	0	0	0	0	0	0	0	0
SA	0	0	0	0	0	0	0	0	0	0
Tas	0	0	0	0	0	0	0	0	0	0
Vic	0	0	0	0	0	0	0	0	0	0
WA	5	0	5	0	0	0	0	0	0	5
ACT	319	10	329	202	29	231	0	0	0	560
NT	0	1	1	0	0	0	0	0	0	1
External territories	0	0	0	0	0	0	0	0	0	0
Overseas	0	0	0	0	0	0	0	0	0	0
Total	324	11	335	202	29	231	0	0	0	566

Table 5.7 All non-ongoing employees, previous reporting period (2020–21).

Location	Male			Female			Indeterminate			Total
	Full time	Part time	Total	Full time	Part time	Total	Full time	Part time	Total	
NSW	0	0	0	0	0	0	0	0	0	0
Qld	0	0	0	0	0	0	0	0	0	0
SA	0	0	0	0	0	0	0	0	0	0
Tas	0	0	0	0	0	0	0	0	0	0
Vic	0	0	0	0	0	0	0	0	0	0
WA	0	0	0	0	0	0	0	0	0	0
ACT	25	2	27	14	4	18	0	0	0	45
NT	0	0	0	0	0	0	0	0	0	0
External territories	0	0	0	0	0	0	0	0	0	0
Overseas	0	0	0	0	0	0	0	0	0	0
Total	25	2	27	14	4	18	0	0	0	45

Australian Public Service classification and gender

Table 5.8 *Public Service Act 1999* ongoing employees, current reporting period (2021–22).

Classification	Male			Female			Indeterminate			Total
	Full time	Part time	Total	Full time	Part time	Total	Full time	Part time	Total	
SES 3	1	0	1	0	0	0	0	0	0	1
SES 2	3	0	3	1	0	1	0	0	0	4
SES 1	1	0	1	1	0	1	0	0	0	2
EL 2	79	1	80	33	0	33	0	0	0	113
EL 1	135	3	138	69	4	73	0	0	0	211
APS 6	71	3	74	66	6	72	0	0	0	146
APS 5	29	4	33	33	7	40	0	0	0	73
APS 4	10	0	10	9	4	13	0	0	0	23
APS 3	1	0	1	1	0	1	0	0	0	2
APS 2	1	0	1	0	0	0	0	0	0	1
APS 1	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Total	331	11	342	213	21	234	0	0	0	576

Table 5.9 Public Service Act non-ongoing employees, current reporting period (2021–22).

Classification	Male			Female			Indeterminate			Total
	Full time	Part time	Total	Full time	Part time	Total	Full time	Part time	Total	
SES 3	0	0	0	0	0	0	0	0	0	0
SES 2	0	0	0	0	0	0	0	0	0	0
SES 1	0	0	0	0	0	0	0	0	0	0
EL 2	0	0	0	0	0	0	0	0	0	0
EL 1	8	0	8	3	2	5	0	0	0	13
APS 6	9	1	10	8	5	13	0	0	0	23
APS 5	6	1	7	7	2	9	0	0	0	16
APS 4	3	0	3	4	1	5	0	0	0	8
APS 3	1	0	1	0	0	0	0	0	0	1
APS 2	0	0	0	1	0	1	0	0	0	1
APS 1	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Total	27	2	29	23	10	33	0	0	0	62

Table 5.10 Public Service Act ongoing employees, previous reporting period (2020–21).

Classification	Male			Female			Indeterminate			Total
	Full time	Part time	Total	Full time	Part time	Total	Full time	Part time	Total	
SES 3	1	0	1	0	0	0	0	0	0	1
SES 2	3	0	3	1	0	1	0	0	0	4
SES 1	0	0	0	1	0	1	0	0	0	1
EL 2	68	1	69	23	1	24	0	0	0	93
EL 1	106	3	109	61	5	66	0	0	0	175
APS 6	90	3	93	62	11	73	0	0	0	166
APS 5	42	4	46	39	8	47	0	0	0	93
APS 4	12	0	12	13	4	17	0	0	0	29
APS 3	1	0	1	2	0	2	0	0	0	3
APS 2	1	0	1	0	0	0	0	0	0	1
APS 1	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Total	324	11	335	202	29	231	0	0	0	566

Table 5.11 Public Service Act non-ongoing employees, previous reporting period (2020–21).

Classification	Male			Female			Indeterminate			Total
	Full time	Part time	Total	Full time	Part time	Total	Full time	Part time	Total	
SES 3	0	0	0	0	0	0	0	0	0	0
SES 2	0	0	0	0	0	0	0	0	0	0
SES 1	0	0	0	0	0	0	0	0	0	0
EL 2	1	0	1	0	0	0	0	0	0	1
EL 1	6	1	7	0	0	0	0	0	0	7
APS 6	8	1	9	4	0	4	0	0	0	13
APS 5	6	0	6	6	2	8	0	0	0	14
APS 4	3	0	3	4	2	6	0	0	0	9
APS 3	1	0	1	0	0	0	0	0	0	1
APS 2	0	0	0	0	0	0	0	0	0	0
APS 1	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Total	25	2	27	14	4	18	0	0	0	45

Employment type by full-time and part-time status

Table 5.12 Public Service Act employees by full-time and part-time status, current reporting period (2021–22).

Classification	Ongoing			Non-ongoing			Total
	Full time	Part time	Total	Full time	Part time	Total	
SES 3	1	0	1	0	0	0	1
SES 2	4	0	4	0	0	0	4
SES 1	2	0	2	0	0	0	2
EL 2	112	1	113	0	0	0	113
EL 1	204	7	211	11	2	13	224
APS 6	137	9	146	17	6	23	169
APS 5	62	11	73	13	3	16	89
APS 4	19	4	23	7	1	8	31
APS 3	2	0	2	1	0	1	3
APS 2	1	0	1	1	0	1	2
APS 1	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total	544	32	576	50	12	62	638

Table 5.13 Public Service Act employees by full-time and part-time status, previous reporting period (2020–21).

Classification	Ongoing			Non-ongoing			
	Full time	Part time	Total	Full time	Part time	Total	Total
SES 3	1	0	1	0	0	0	1
SES 2	4	0	4	0	0	0	4
SES 1	1	0	1	0	0	0	1
EL 2	91	2	93	1	0	1	94
EL 1	167	8	175	6	1	7	182
APS 6	152	14	166	12	1	13	179
APS 5	81	12	93	12	2	14	107
APS 4	25	4	29	7	2	9	38
APS 3	3	0	3	1	0	1	4
APS 2	1	0	1	0	0	0	1
APS 1	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total	526	40	566	39	6	45	611

Employment type by location

Table 5.14 Public Service Act employment type by location, current reporting period (2021–22).

Location	Ongoing	Non-ongoing	Total
NSW	0	0	0
Qld	0	0	0
SA	0	0	0
Tas	0	0	0
Vic	0	0	0
WA	5	0	5
ACT	570	62	632
NT	1	0	1
External territories	0	0	0
Overseas	0	0	0
Total	576	62	638

Table 5.15 Public Service Act employment type by location, previous reporting period (2020–21).

Location	Ongoing	Non-ongoing	Total
NSW	0	0	0
Qld	0	0	0
SA	0	0	0
Tas	0	0	0
Vic	0	0	0
WA	5	0	5
ACT	560	45	605
NT	1	0	1
External territories	0	0	0
Overseas	0	0	0
Total	566	45	611

Indigenous employment

Table 5.16 Public Service Act Indigenous employment, current reporting period (2021–22).

	Total
Ongoing	4
Non-ongoing	0
Total	4

Table 5.17 Public Service Act Indigenous employment, previous reporting period (2020–21).

	Total
Ongoing	3
Non-ongoing	0
Total	3

Employment arrangements of SES and non-SES employees

Table 5.18 Public Service Act employment arrangements, current reporting period (2021–22).

	SES	Non-SES	Total
Geoscience Australia Enterprise Agreement 2019–22	0	583	583
Common law contract	7	0	7
Individual flexibility arrangement	0	48	48
Total	7	631	638

Salary ranges by classification level

Table 5.19 Public Service Act employment salary ranges by classification level, current reporting period (2021–22).

Classification	Minimum salary ($)	Maximum salary ($)
SES 3	337,773	402,761
SES 2	261,404	306,525
SES 1	206,306	252,052
EL 2	125,763	206,306
EL 1	105,826	169,113
APS 6	87,917	110,000
APS 5	75,803	84,668
APS 4	68,051	126,319
APS 3	60,420	64,236
APS 2	53,038	56,671
APS 1	42,777	46,408
Other	N/A	N/A
Minimum/maximum range	42,777	402,761

The maximum salary range presented at the EL2, EL1, APS6, APS5 and APS4 classification level reflect remuneration arrangements under our Enterprise Agreement, salary maintenance arrangements and Individual Flexibility Arrangements. Remuneration under these arrangements support talent attraction for highly specialised/technical skills.

Geoscience Australia provides employees with non-salary benefits that are not included under the enterprise agreement, such as:

- access to a childcare centre
- onsite gym facilities
- onsite free parking
- annual influenza vaccination
- early intervention case management
- support to return to work for non-compensable injuries and illnesses
- mental health and wellbeing support
- access to programs, initiatives and committees that drive and celebrate our inclusive and diverse workplace
- in-house capability development programs
- internal and external secondment opportunities.

Performance pay by classification level

Geoscience Australia had no performance pay, also known as performance-linked bonuses, to report during 2021–22.

Appendix 4: Executive remuneration

Table 5.20 Remuneration for key management personnel.

Name	Position title	Short-term benefits ($)			Post-employment benefits ($)	Other long-term benefits ($)		Termination benefits ($)	Total remuneration ($)
		Base salary	Bonuses	Other benefits and allowances	Super-annuation contributions	Long service leave	Other long-term benefits		
James Johnson	Chief Executive Officer	369,479	0	0	57,484	12,599	0	0	439,562
Andrew Heap	Chief of Minerals, Energy and Groundwater Division	296,619	0	0	56,245	905	0	0	353,769
Trent Rawlings	Chief of Corporate Division Chief Operating Officer	290,349	0	0	53,744	7,493	0	0	351,586
Alison Rose	Chief of Place, Space and Communities Division	290,728	0	0	54,084	6,656	0	0	351,468
Steven Hill	Chief Scientist	276,151	0	0	41,553	5,086	0	0	322,790
Total		1,523,326	0	0	263,109	32,739	0	0	1,819,174

Table 5.21 Remuneration for senior executives.

Total remuneration bands ($)	Number of senior executives	Short-term benefits ($)			Post-employment benefits ($)	Other long-term benefits ($)		Termination benefits ($)	Total remuneration ($)
		Average base salary	Average bonuses	Average other benefits and allowances	Average superannuation contributions	Average long service leave	Average other long-term benefits	Average termination benefits	Average total remuneration
$0–$220,000	3	71,641	0	0	9,903	279	0	0	81,823
$220,001–$245,000	0	0	0	0	0	0	0	0	0
$245,001–$270,000	1	228,929	0	432	39,854	-1,237	0	0	267,978

Table 5.22 Remuneration for other highly paid staff.

Total remuneration bands ($)	Number of other highly paid staff	Short-term benefits ($)			Post-employment benefits ($)	Other long-term benefits ($)		Termination benefits ($)	Total remuneration ($)
		Average base salary	Average bonuses	Average other benefits and allowances	Average superannuation contributions	Average long service leave	Average other long-term benefits	Average termination benefits	Average total remuneration
$235,001–$245,000	1	206,784	0	0	31,896	1,625	0	0	240,305
$245,001–$270,000	5	196,548	0	0	32,199	5,548	0	20,914	255,209
$270,001–$295,000	1	226,161	0	0	42,791	3,515	0	0	272,467
$295,001–$320,000	0	0	0	0	0	0	0	0	0
$320,001–$345,000	1	110,677	0	0	18,432	2,187	0	190,478	321,774

Appendix 5: Ecologically sustainable development and environmental performance

Section 516A of the Environment Protection and Biodiversity Conservation Act requires Geoscience Australia to report annually on how its activities accord with and contribute to the principles of ecologically sustainable development and the environmental performance of its operations.

Many of Geoscience Australia's work activities contribute to an improved understanding of the physical nature and health of the natural environment. See the Annual Performance Statements for details of specific activities.

Geoscience Australia continues to pursue ecologically sustainable development initiatives in property and facilities management. It uses an environmental management system to identify, modify and control environmental impacts in areas such as waste management, recycling and chemical disposal. Monitoring and reporting on water and energy consumption are also incorporated into this system.

The Geoscience Australia building at Symonston in the Australian Capital Territory has many ecologically sustainable features, including:

- a north–south orientation to increase access to natural light
- movement detection for lighting in general office areas
- a geothermal air-conditioning system
- double-glazed windows and doors
- a large building footprint, allowing for a low ratio of external wall to gross floor area, minimising the impact of external thermal conditions on the air-conditioning system.

As part of a whole-of-Australian-Government property services arrangement, Geoscience Australia's facilities management provider, Evolve FM Pty Ltd, is responsible for the environmental management of the building and facilities, including monitoring and reporting.

Environmental initiatives at the Symonston building during 2021–22 included:

- completion of lighting upgrades and ongoing replacement of fluorescent lighting with efficient light-emitting diode (LED) lighting controlled through a digital interface in more than 20,000 m^2 of office area
- ongoing improvements to the configuration of its building management system
- ongoing upgrades and adjustments to the building's heating, ventilation and air-conditioning systems, including improving the geothermal water supply, rebalancing floor space supply settings and replacing filters in air-conditioning systems.

Currently, the building has a 2-star whole-of-building energy rating under the National Australian Built Environment Rating System (NABERS). The lessor has committed to improving this to at least a 4-star rating.

Abbreviations and acronyms

AFDRS	Australian Fire Danger Rating System
AMSIS	Australian Marine Spatial Information System
AOI	area/s of interest
APS	Australian Public Service
CEMS	Copernicus Emergency Management Service
DEA	Digital Earth Australia
EMA	Emergency Management Australia
GNSS	global navigation satellite system
ICT	information and communications technology
IGS	International GNSS Service
ISI	Ignition, Suppression and Impact
Location IDC	Location Inter-Departmental Committee
MISP	Minor Injury Support Program
NEAC	National Earthquake Alerts Centre
NESP	National Environmental Science Program
NEXIS	National Exposure Information System
NSR	National Situation Room
PGPA Act	*Public Governance, Performance and Accountability Act 2013*
RAP	Reconciliation Action Plan
ROU assets	right-of-use assets
SAGE	Science in Australia Gender Equity
SBAS	satellite-based augmentation system
SES	Senior Executive Service
WHS	work health and safety

Compliance checklist

PGPA Rule reference	Page	Description	Requirement
17AD(g)		**Letter of transmittal**	
17AI	v	A copy of the letter of transmittal signed and dated by accountable authority on date final text approved, with statement that the report has been prepared in accordance with section 46 of the PGPA Act and any enabling legislation that specifies additional requirements in relation to the annual report	Mandatory
17AD(h)		**Aids to access**	
17AJ(a)	vi-vii	Table of contents	Mandatory
17AJ(b)	148	Alphabetical index	Mandatory
17AJ(c)	139	Glossary of abbreviations and acronyms	Mandatory
17AJ(d)	140-147	List of requirements	Mandatory
17AJ(e)	iii	Details of contact officer	Mandatory
17AJ(f)	iii	Entity's website address	Mandatory
17AJ(g)	iii	Electronic address of report	Mandatory
17AD(a)		**Review by accountable authority**	
17AD(a)	3-8	A review by the accountable authority of the entity	Mandatory
17AD(b)		**Overview of the entity**	
17AE(1)(a)(i)	9	A description of the role and functions of the entity	Mandatory
17AE(1)(a)(ii)	10	A description of the organisational structure of the entity	Mandatory
17AE(1)(a)(iii)	11	A description of the outcomes and programmes administered by the entity	Mandatory
17AE(1)(a)(iv)	9	A description of the purposes of the entity as included in corporate plan	Mandatory
17AE(1)(aa)(i)	10	Name of the accountable authority or each member of the accountable authority	Mandatory
17AE(1)(aa)(ii)	10	Position title of the accountable authority or each member of the accountable authority	Mandatory

PGPA Rule reference	Page	Description	Requirement
17AE(1)(aa)(iii)	10	Period as the accountable authority or member of the accountable authority within the reporting period	Mandatory
17AE(1)(b)	N/A	An outline of the structure of the portfolio of the entity	Portfolio departments–mandatory
17AE(2)	N/A	Where the outcomes and programs administered by the entity differ from any Portfolio Budget Statement, Portfolio Additional Estimates Statement or other portfolio estimates statement that was prepared for the entity for the period, include details of variation and reasons for change	If applicable, mandatory
17AD(c)		**Report on the performance of the entity** **Annual performance statements**	
17AD(c)(i); 16F	15-59	Annual performance statement in accordance with paragraph 39(1)(b) of the Act and section 16F of the Rule	Mandatory
		Report on financial performance	
17AF(1)(a)	59	A discussion and analysis of the entity's financial performance.	Mandatory
17AF(1)(b)	119-122	A table summarising the total resources and total payments of the entity.	Mandatory
17AF(2)	N/A	If there may be significant changes in the financial results during or after the previous or current reporting period, information on those changes, including: the cause of any operating loss of the entity; how the entity has responded to the loss and the actions that have been taken in relation to the loss; and any matter or circumstances that it can reasonably be anticipated will have a significant impact on the entity's future operation or financial results	If applicable, mandatory
17AD(d)		**Management and accountability** **Corporate governance**	
17AG(2)(a)	64	Information on compliance with section 10 (fraud systems)	Mandatory
17AG(2)(b)(i)	v	A certification by accountable authority that fraud risk assessments and fraud control plans have been prepared	Mandatory

PGPA Rule reference	Page	Description	Requirement
17AG(2)(b)(ii)	v	A certification by accountable authority that appropriate mechanisms for preventing, detecting incidents of, investigating or otherwise dealing with, and recording or reporting fraud that meet the specific needs of the entity are in place	Mandatory
17AG(2)(b)(iii)	v	A certification by accountable authority that all reasonable measures have been taken to deal appropriately with fraud relating to the entity	Mandatory
17AG(2)(c)	63	An outline of structures and processes in place for the entity to implement principles and objectives of corporate governance	Mandatory
17AG(2)(d) – (e)	64	A statement of significant issues reported to Minister under paragraph 19(1)(e) of the Act that relates to non-compliance with Finance law and action taken to remedy non-compliance	If applicable, mandatory
		Audit committee	
17AG(2A)(a)	63	A direct electronic address of the charter determining the functions of the entity's audit committee	Mandatory
17AG(2A)(b)	123	The name of each member of the entity's audit committee	Mandatory
17AG(2A)(c)	123	The qualifications, knowledge, skills or experience of each member of the entity's audit committee	Mandatory
17AG(2A)(d)	123	Information about the attendance of each member of the entity's audit committee at committee meetings	Mandatory
17AG(2A)(e)	123	The remuneration of each member of the entity's audit committee	Mandatory
		External scrutiny	
17AG(3)	64	Information on the most significant developments in external scrutiny and the entity's response to the scrutiny	Mandatory
17AG(3)(a)	64	Information on judicial decisions and decisions of administrative tribunals and by the Australian Information Commissioner that may have a significant effect on the operations of the entity	If applicable, mandatory
17AG(3)(b)	64	Information on any reports on operations of the entity by the Auditor-General (other than report under section 43 of the Act), a Parliamentary Committee, or the Commonwealth Ombudsman	If applicable, mandatory

PGPA Rule reference	Page	Description	Requirement
17AG(3)(c)	64	Information on any capability reviews on the entity that were released during the period	If applicable, mandatory
		Management of human resources	
17AG(4)(a)	65-66	An assessment of the entity's effectiveness in managing and developing employees to achieve entity objectives	Mandatory
17AG(4)(aa)	124-125	Statistics on the entity's employees on an ongoing and non-going basis, including statistics on: (a) full time employees (b) part time employees (c) gender (d) staff location	Mandatory
17AG(4)(b)	126-133	Statistics on the entity's APS employees on an ongoing and non-ongoing basis, including statistics on: (a) staffing classification level (b) full time employees (c) part time employees (d) gender (e) staff location (f) employees who identify as Indigenous	Mandatory
17AG(4)(c)	133	Information on any enterprise agreements, individual flexibility arrangements, Australian workplace agreements, common law contracts and determinations under subsection 24(1) of the Public Service Act	Mandatory
17AG(4)(c)(i)	133	Information on the number of SES and non SES employees covered by agreements etc identified in paragraph 17AG(4)(c)	Mandatory
17AG(4)(c)(ii)	134	The salary ranges available for APS employees by classification level	Mandatory
17AG(4)(c)(iii)	134	A description of non salary benefits provided to employees	Mandatory
17AG(4)(d)(i)	134	Information on the number of employees at each classification level who received performance pay	If applicable, mandatory
17AG(4)(d)(ii)	134	Information on aggregate amounts of performance pay at each classification level	If applicable, mandatory

PGPA Rule reference	Page	Description	Requirement
17AG(4)(d)(iii)	134	Information on the average amount of performance payment, and range of such payments, at each classification level	If applicable, mandatory
17AG(4)(d)(iv)	134	Information on aggregate amount of performance payments	If applicable, mandatory
		Asset management	
17AG(5)	N/A	An assessment of effectiveness of assets management where asset management is a significant part of the entity's activities	If applicable, mandatory
		Purchasing	
17AG(6)	68	An assessment of entity performance against the Commonwealth Procurement Rules	Mandatory
		Reportable consultancy contracts	
17AG(7)(a)	70	A summary statement detailing the number of new reportable consultancy contracts entered into during the period; the total actual expenditure on all such contracts (inclusive of GST); the number of ongoing reportable consultancy contracts that were entered into during a previous reporting period; and the total actual expenditure in the reporting period on those ongoing contracts (inclusive of GST)	Mandatory
17AG(7)(b)	70	A statement that "During [reporting period], [specified number] new reportable consultancy contracts were entered into involving total actual expenditure of $[specified million]. In addition, [specified number] ongoing reportable consultancy contracts were active during the period, involving total actual expenditure of $[specified million]."	Mandatory
17AG(7)(c)	70	A summary of the policies and procedures for selecting and engaging consultants and the main categories of purposes for which consultants were selected and engaged	Mandatory
17AG(7)(d)	70	A statement that "Annual reports contain information about actual expenditure on reportable consultancy contracts. Information on the value of reportable consultancy contracts is available on the AusTender website."	Mandatory

PGPA Rule reference	Page	Description	Requirement
		Reportable non-consultancy contracts	
17AG(7A)(a)	69	A summary statement detailing the number of new reportable non-consultancy contracts entered into during the period; the total actual expenditure on such contracts (inclusive of GST); the number of ongoing reportable non-consultancy contracts that were entered into during a previous reporting period; and the total actual expenditure in the reporting period on those ongoing contracts (inclusive of GST)	Mandatory
17AG(7A)(b)	69	A statement that "Annual reports contain information about actual expenditure on reportable non-consultancy contracts. Information on the value of reportable non-consultancy contracts is available on the AusTender website."	Mandatory
17AD(daa)		**Additional information about organisations receiving amounts under reportable consultancy contracts or reportable non-consultancy contracts**	
17AGA	69-70	Additional information, in accordance with section 17AGA, about organisations receiving amounts under reportable consultancy contracts or reportable non-consultancy contracts	Mandatory
		Australian National Audit Office clauses	
17AG(8)	69	If an entity entered into a contract with a value of more than $100,000 (inclusive of GST) and the contract did not provide the Auditor-General with access to the contractor's premises, the report must include the name of the contractor, purpose and value of the contract, and the reason why a clause allowing access was not included in the contract	If applicable, mandatory
		Exempt contracts	
17AG(9)	69	If an entity entered into a contract or there is a standing offer with a value greater than $10,000 (inclusive of GST) which has been exempted from being published in AusTender because it would disclose exempt matters under the Freedom of Information Act, the annual report must include a statement that the contract or standing offer has been exempted, and the value of the contract or standing offer, to the extent that doing so does not disclose the exempt matters	If applicable, mandatory

PGPA Rule reference	Page	Description	Requirement
		Small business	
17AG(10)(a)	68	A statement that "[Name of entity] supports small business participation in the Commonwealth Government procurement market. Small and Medium Enterprises (SME) and Small Enterprise participation statistics are available on the Department of Finance's website."	Mandatory
17AG(10)(b)	68	An outline of the ways in which the procurement practices of the entity support small and medium enterprises	Mandatory
17AG(10)(c)	68	If the entity is considered by the Department administered by the Finance Minister as material in nature – a statement that "[Name of entity] recognises the importance of ensuring that small businesses are paid on time. The results of the Survey of Australian Government Payments to Small Business are available on the Treasury's website."	If applicable, mandatory
		Financial statements	
17AD(e)	75-115	Inclusion of the annual financial statements in accordance with subsection 43(4) of the Act	
		Executive remuneration	
17AD(da)	66, 135–137	Information about executive remuneration in accordance with Subdivision C of Division 3A of Part 2 3 of the Rule	Mandatory
17AD(f)		**Other mandatory information**	
17AH(1)(a)(i)	N/A	If the entity conducted advertising campaigns, a statement that "During [reporting period], the [name of entity] conducted the following advertising campaigns: [name of advertising campaigns undertaken]. Further information on those advertising campaigns is available at [address of entity's website] and in the reports on Australian Government advertising prepared by the Department of Finance. Those reports are available on the Department of Finance's website."	If applicable, mandatory
17AH(1)(a)(ii)	71	If the entity did not conduct advertising campaigns, a statement to that effect	If applicable, mandatory
17AH(1)(b)	71	A statement that "Information on grants awarded by [name of entity] during [reporting period] is available at [address of entity's website]."	If applicable, mandatory
17AH(1)(c)	67	Outline of mechanisms of disability reporting, including reference to website for further information	Mandatory

PGPA Rule reference	Page	Description	Requirement
17AH(1)(d)	6564	Website reference to where the entity's Information Publication Scheme statement pursuant to Part II of the Freedom of Information Act can be found	Mandatory
17AH(1)(e)	N/A	Correction of material errors in previous annual report	If applicable, mandatory
17AH(2)	138	Information required by other legislation	Mandatory

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Geoscience Australia
GPO Box 378
Canberra ACT 2601
ga.gov.au