



Geoscience Australia

CORPORATE PLAN

2018-19 to 2021-22

August 2018

Contents

1. Introduction	3
1.1 Chief Executive Officer's foreword	3
1.2 Statement of preparation	3
2. Strategic Direction	4
2.1 Purpose	4
2.2 Strategic Priorities and Objectives	4
3. Strategic Priorities and Performance Criteria	5
3.1 Building Australia's Resource Wealth	6
3.2 Ensuring Australia's Community Safety	8
3.3 Securing Australia's Water Resources	10
3.4 Managing Australia's Marine Jurisdictions	11
3.5 Providing Fundamental Geographic Information	12
3.6 Maintaining Australia's Geoscience Knowledge and Capability	14
4. Financial Management	16
5. Geoscience Australia Overview	17

1. Introduction

1.1 Chief Executive Officer's foreword

Geoscience Australia has been the nation's trusted advisor on the geological and geographical history of Australia since 1946. At that time, the Australian Government recognised the need to locate and assess the nation's natural resources, and undertake fundamental mapping work for national development and growth. Separate agencies undertook this work for more than 50 years before joining in 2001 to form Geoscience Australia, bringing together the nation's expertise in geology, geophysics, geodesy, satellite imagery, and topographic mapping.

Today, our work covers the Australian continent, Australia's marine jurisdiction, and Australia's territories in Antarctica. We apply our geoscientific capabilities to the opportunities and challenges that face the nation: maximising value from our abundant minerals and energy resources; providing the fundamental geographic information to develop the nation; sustainably managing a vast marine environment; securing water on a dry continent; protecting communities from natural disasters; and operating an integrated network of geophysical observatories to collect and distribute nationally beneficial data and information.

1.2 Statement of preparation

As the accountable authority of Geoscience Australia, I am pleased to present Geoscience Australia's 2018-19 Corporate Plan covering the four-year period to 2021-22, as required under section 35(1)(b) of the *Public Governance, Performance and Accountability Act 2013*.



Dr James Johnson
Chief Executive Officer

16 August 2018

2. Strategic Direction

2.1 Purpose

Geoscience Australia is the nation's trusted advisor on the geology and geography of Australia. We apply science and technology to the opportunities and challenges that face the nation.

Our purpose is to provide information and capabilities to support government, industry and the community to make decisions and improve economic, environmental and social outcomes for the nation.

2.2 Strategic Priorities and Objectives

To achieve our purpose, our work is delivered through six key strategic priorities:



Building Australia's resource wealth—to maximise benefits from Australia's minerals and energy resources, now and into the future



Ensuring Australia's community safety—so that Australian communities are more resilient to natural hazards



Securing Australia's water resources—to optimise and sustain the use of Australia's groundwater resources



Managing Australia's marine jurisdictions—to maximise benefits from the sustainable use of Australia's marine environment



Providing fundamental geographic information—to understand the location and timing of processes, activities and changes across Australia to inform decision-making for both natural and built environments



Maintaining geoscience knowledge and capability—to maintain an enduring and accessible knowledge base and capability to enable evidence-based policy and decision-making by government, industry and the community.

Each strategic priority area is supported by a number of activities that form the foundation of the organisation's ongoing portfolio of work.

3. Strategic Priorities and Performance Criteria

Geoscience Australia's work program is delivered through six key strategic priority areas. Each priority area outlines the role of the organisation, the desired outcomes to be achieved, and the core work activities and capabilities.

Geoscience Australia's performance will be assessed using a number of qualitative and quantitative measures to communicate a comprehensive view of performance that will be presented in the organisation's annual performance statement. Performance measures will include assessment against key work deliverables, key performance indicators and case studies.

3.1 Building Australia's Resource Wealth

Environment

Australia's mineral and energy resources are a major contributor to the nation's wealth, both economically and socially. Understanding the available resources is a prerequisite for formulating sound policies on resources and land access.

Australia has a significant advantage in the production of resource commodities over other nations. This advantage stems from the rich and diverse mineral and energy endowment, the high quality regional-scale geoscience information that lowers the risks of exploration, advanced exploration, mining and processing technologies, a skilled work force, generally favourable physical environments, relatively stable economic conditions, enabling and robust legislative framework and low sovereign risk.

Our Role

Attract exploration investment to Australia by building a prospectus of minerals and energy resource potential.

Desired outcomes

- Australia is an internationally competitive destination for minerals and energy resource investment.
- Australia maintains its minerals and energy resources pipeline through new discoveries.
- Australia's resources are optimised to benefit and contribute to the economy.
- There is public confidence in the management of the minerals and energy resources sector.

Work Activities and Capability

Exploring for the Future

Exploring for the Future is a program investigating the mineral, energy and groundwater resource potential in northern Australia. This is an under-explored region and new geoscience data and knowledge increases confidence in investment and planning decisions encouraging future economic activity, leading to regional job opportunities and infrastructure investment.

Geoscience Australia will deliver a new body of geoscience data and decision-support tools, particularly in under-explored greenfield areas. This work will help maintain the resources pipeline through new discoveries and support Australia in being an internationally competitive destination to attract resource investment.

The delivery of new information will also support Australia's environmental outcomes, ensuring the management of Australia's groundwater resources is underpinned by scientific evidence, that communities have access to sustainable groundwater resources, and the development of sustainable agriculture is supported.

Energy Pre-Competitive Information

Resource exploration investment is needed to ensure the discovery and development of the next generation of oil and gas resources, both onshore and offshore. New discoveries also support regional development through economic growth and the creation of new jobs. Each year, the Australian Government releases selected offshore regions for petroleum exploration to industry. This is often supplemented by the release of onshore regions by the state and Northern Territory governments.

In support of this, Geoscience Australia generates a national prospectus of potential energy resources through new data acquisition and regional geological studies. This energy prospectus is vital to helping secure Australia's energy future, significantly lowering the risks for companies entering into Australia and enhancing Australia's reputation as an attractive destination for energy investment in a globally competitive resources market. Geoscience Australia takes a leadership role in the coordination of energy related geoscience activities across government entities and jurisdictions, including the establishment of standards and facilitation of survey acquisitions.

Minerals Pre-Competitive Information

The Australian Government aims to improve the success of mineral exploration in greenfield (unexplored) regions of Australia. Much of the Australian continent is covered by a thick layer of sediment, concealing potential mineral resources. Exploring under this cover is technically difficult, requiring innovation and development of new exploration methods.

Geoscience Australia will develop a national prospectus of mineral resource potential through the acquisition, analysis and delivery of pre-competitive geoscience information, for the purpose of attracting investment in the Australian mineral exploration sector.

The provision of high-quality geoscientific pre-competitive information lowers the risks for exploration companies and enhances Australia's reputation as an attractive destination for minerals investment in a globally competitive resources market. Geoscience Australia's work, in collaboration with state and Northern Territory governments, addresses fundamental data gaps and prospectivity questions in exploration areas.

	<p>Resources Advice and Promotion</p> <p>The provision of advice and technical information to the Australian Government enables evidence-based decision making and policy development for mineral and energy resources.</p> <p>Geoscience Australia undertakes promotional activities, often in collaboration with state and Northern Territory governments, to attract exploration investment to sustain the pipeline of resource development and investment.</p> <p>Geoscience Australia provides authoritative, independent information and advice to the Australian Government and other stakeholders covering mineral commodities, oil and gas resources, and the geological storage of carbon dioxide. Advice is also to be provided on potential feasible locations for the National Radioactive Waste Management Facility and in support of evaluating the mineral resource potential of the Woomera Prohibited Area.</p>			
Deliverables	2018-2019	2019-2020	2020-2021	2021-2022
<p>Exploring for the Future</p> <ul style="list-style-type: none"> • Release of pre-competitive information • Deliver integrated resource assessment for northern Australia 	✓	✓		
<p>Energy Pre-Competitive Information</p> <ul style="list-style-type: none"> • Deliver geological studies of the evolution and resource potential of onshore and offshore energy systems • Deliver assessments of the energy potential of the Geological and Bioregional Assessments program • Deliver new offshore exploration acreage opportunities from Energy Systems pre-competitive program in annual Offshore Petroleum Exploration Acreage release 	✓	✓	✓	✓
<p>Minerals Pre-Competitive Resource</p> <ul style="list-style-type: none"> • Deliver new pre-competitive data from greenfield undercover regions • Deliver geological studies of the evolution and resource potential of undercover regions to support mineral exploration investment 	✓	✓	✓	✓
<p>Resources Advice and Promotion</p> <ul style="list-style-type: none"> • Deliver geological material to support the Offshore Petroleum Acreage Release • Deliver technical advice on mineral and energy resources, including the storage of CO₂, to the Australian Government 	✓	✓	✓	✓
Key Performance Indicators	2018-2019	2019-2020	2020-2021	2021-2022
Provide advice in relation to the <i>Environment Protection and Biodiversity Act 1999</i> within the stated response period	100%	100%	100%	100%

3.2 Ensuring Australia's Community Safety

Environment

Natural hazards, particularly cyclones, bushfires, floods, and earthquakes, have a significant impact on the economy, environment and society. The direct costs of property and infrastructure damage and business losses are significant, as are governments' outlays in relief and recovery payments.

Australia's ability to effectively mitigate the impacts of natural hazards and disasters is contingent upon the availability of information on the incidence and impact of specific hazards and on early warning and advice.

Our Role

Support Australia's capability to manage the impact of natural hazards.

Desired outcomes

- Australia has a national capability to reduce the economic, social and environmental impacts of hazard events.
- Informed decisions can be made in preparation for and in response to hazard events.
- Ongoing monitoring, alerting and early warning systems provide critical inputs to reducing the impacts of hazard events.

Community Safety

To enable governments, businesses and the community to better understand the impacts of hazard events and make informed decisions to develop more resilient communities, Geoscience Australia delivers authoritative, nationally consistent data and information.

Geoscience Australia supports all levels of government in implementing key initiatives of the National Strategy for Disaster Resilience and the national mitigation reform agenda. Geoscience Australia will undertake national scale hazard assessments, develop an understanding of the impact of natural hazards on the built environment and provide advice and information to support hazard impact mitigation.

Geoscience Australia will also support the Australian Government in implementing their international policy commitments for disaster risk reduction, particularly in the Indo-Pacific region, and continue to provide ongoing support to the Australian Reinsurance Pool Corporation.

Seismic Alerts

Geoscience Australia operates extensive networks of observatories and geophysical monitoring stations that are monitored 24 hours a day, 365 days a year. Combining seismological expertise with current technology enables Geoscience Australia to provide real-time seismic information and analysis.

This capability underpins:

- the delivery of rapid earthquake bulletins for tsunami warning and earthquake emergency response, including the provision of information and advice to support national and local emergency management planning, coordination and response, and to inform the media and the public
- the production and management of the Australian earthquake catalogue, that supports seismology research
- the provision of rapid and robust advice to government in response to suspected nuclear events, including post-event, forensic analysis.

Situational Awareness Information Framework

Natural hazards can have a significant impact on Australian communities, and requires a coordinated approach to preparedness, mitigation, response and recovery. Informed decision making by government, business and the community depends upon access to accurate, reliable and relevant location information, delivered at the right time and in forms easy to consume.

Geoscience Australia delivers relevant location information on the nature, extent and potential impacts of natural hazards to the Australian Government. This 'situational awareness' information is used by our stakeholders to minimise the threat of hazards on our infrastructure and community, provide effective response to and recovery from disasters, and make navigation safe.

Geoscience Australia leads the curation of and connection to location information products which support Australian Government community safety policies and operations. These products are derived from Australia's foundation spatial datasets and include the National Exposure Information System, location information products for Airservices Australia and the Sentinel Hotspots bushfire monitoring system.

Work Activities and Capability

Deliverables	2018-2019	2019-2020	2020-2021	2021-2022
Community Safety <ul style="list-style-type: none"> • Release hazard assessments for: Australian Tsunami, National Seismic and Tropical Cyclone 	✓			

<ul style="list-style-type: none"> • Provide information, advice, data and tools to prepare for and respond to hazards events and threats • Deliver on hazard mitigation strategies and impact forecasting projects through the Bushfire and Natural Hazards Cooperative Research Centre program • Deliver the Disaster Risk Reduction work program in Papua New Guinea as part of the Australian Government's international policy commitments • Deliver portfolio analysis and Central Business District models for the Australian Reinsurance Pool Corporation 	✓	✓	✓	✓
<p>Seismic Alerts</p> <ul style="list-style-type: none"> • Provide ongoing monitoring of specified regions for detection of suspected nuclear tests • Provide 24 hour, 7 days per week earthquake monitoring and alerts 	✓	✓	✓	✓
<p>Situational Awareness Information Framework</p> <ul style="list-style-type: none"> • Provide spatial support and advice to strengthen disaster and emergency management capabilities for the Australian Government • Deliver updated information products to Airservices Australia to support air safety • Develop and deliver updated information exposure information to support Australian Government programs 	✓	✓	✓	✓
Key Performance Indicators	2018-2019	2019-2020	2020-2021	2021-2022
Number of flood study entries accessible to the public through the Australian Flood Risk Information Portal	1300	1400	1500	1600
All significant earthquakes detected, analysed and reported within agreed timeframes, with alerts issued for potentially tsunamigenic earthquakes	100%	100%	100%	100%
All suspected nuclear events detected, analysed and reported within agreed timeframes	100%	100%	100%	100%
Availability of the national bushfire monitoring system, Sentinel Hotspots, between October and March each year	95%	95%	95%	95%
Respond to requests to activate the International Charter for Space and Major Disasters and Copernicus Emergency Management System within 72 hours	100%	100%	100%	100%
Respond to requests for geospatial information to the Australian Government Crisis Coordination Centre within 24 hours between October and March and within 48 hours during steady state periods	95%	95%	95%	95%
National vertical obstacle products comply with Civil Aviation Regulations and are delivered monthly, or as specified, to Airservices Australia	100%	100%	100%	100%
Availability of the national catalogue of emergency management web services, EM-LINK	95%	95%	95%	95%

3.3 Securing Australia's Water Resources

Environment

Australia is the driest inhabited continent, which makes the use and management of water a key challenge. There is, however, a sparse understanding of our water resources in much of the continent.

Groundwater and surface water systems are fundamentally linked and an adequate understanding of groundwater in particular is critical for optimised and holistic management of water resources. In many parts of Australia groundwater underpins minerals and energy resource development, agriculture and regional communities and the environment.

Understanding groundwater systems and minimising the impacts of development on groundwater supply and quality are critical to Australia's ongoing water security and regional development.

Our Role

Inform the understanding of the location, quantity, quality and sustainable use of Australia's groundwater resources and surface water systems.

Desired outcomes

- Management of Australia's groundwater resources is underpinned by scientific evidence.
- Communities have access to a sustainable groundwater resource.
- There is public confidence in the management of groundwater resource use and environmental impacts.

Work Activities and Capability

Evaluating Australia's Groundwater Systems

Significant gaps remain in the scientific knowledge of the size of Australia's groundwater resources, their locations, characteristics, rates of recharge, connectivity with surface waters and rates of use or depletion.

Geoscience Australia's work will deliver new data, interpretations and assessments of the nature, magnitude and status of groundwater resources in key parts of Australia, in collaboration with Commonwealth, state and territory government entities. These new data and information will inform the sustainable management and responsible development of groundwater resources and to provide transparent, evidence-based advice in support of Australian Government priorities.

Groundwater and Surface Water Innovation

To improve the efficiency and cost-effectiveness in delivering groundwater assessments and advice Geoscience Australia will establish and embed new techniques to analyse, interpret and characterise groundwater resources, actively pursuing the best available science and technology.

Geoscience Australia's work will advance multi-disciplinary and integrative geoscientific approaches to understanding groundwater-surface water systems and processes, and actively scan, partner with other organisations, and apply current and emerging science and technology that is beneficial in the investigation of groundwater systems.

A key component of this work will be the development of new workflows that incorporate contemporary science, leading-edge mapping, characterisation, assessment and monitoring technologies that utilise 4-dimensional data and advanced computational infrastructure to deliver efficient and cost-effective science applications.

Deliverables	2018-2019	2019-2020	2020-2021	2021-2022
Evaluating Australia's Groundwater Systems <ul style="list-style-type: none"> • Provide authoritative, independent information and advice to the Australian Government and other stakeholders on groundwater resources, processes and impacts • Deliver stage reports to the Department of the Environment and Energy on the Geological and Bioregional Assessments 	✓	✓	✓	✓
Groundwater and Surface Water Innovation <ul style="list-style-type: none"> • Develop new workflows to integrate and analyse data in a high performance computing environment 	✓	✓	✓	✓
Key Performance Indicators	2018-2019	2019-2020	2020-2021	2021-2022
Requests for groundwater resource management advice under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> responded to within agreed timeframes	95%	95%	95%	95%

3.4 Managing Australia's Marine Jurisdictions

Environment

Australia's marine jurisdiction is large, 1.8 times the size of Australia's land mass and 4 per cent of the global oceans. With increasing global demand for energy, food and security, activity within the marine jurisdiction is becoming increasingly important to the Australian economy. Effective and efficient management of the marine environment relies on baseline mapping, characterisation of marine resources and assets, and the ability to measure change over time.

Our Role

Develop new, national-scale products and coordinate national seabed mapping activities to establish an accessible national collection of marine geoscience data to leverage Australia's vast data holdings.

Desired outcomes

- Australia's seabed is mapped and characterised in sufficient detail to provide a robust evidence-base for the sustainable management and use of its marine assets.

Work Activities and Capability

Marine Jurisdiction and Coastal Zone

Geoscience Australia undertakes sea floor mapping and acquires geological and environmental data to inform marine planning and the sustainable development, management and use of Australia's marine assets.

Geoscience Australia's work will deliver advances in marine environmental baselines and improve the knowledge of Australia's marine environments, including in Australia's Antarctic Territories. In particular, it will deliver an integrated, national approach to bathymetric and marine data capture and storage, and provide national leadership and capacity building through partnering with Commonwealth, State and Territory entities, universities and industry. This will provide an evidence-base to inform the sustainable management of Australia's marine and coastal zone assets.

Deliverables	2018-2019	2019-2020	2020-2021	2021-2022
Marine Jurisdiction and Coastal Zone <ul style="list-style-type: none"> • Deliver and maintain the AusSeabed web portal for seabed environmental data in collaboration with Commonwealth, state and territory entities, universities and industry • Develop and deliver national marine geoscience datasets to support the management of Australia's marine assets • Provide information and advice to support policy in Australia's marine jurisdiction under the <i>Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009</i>, the <i>Environmental Protection and Biodiversity Conservation Act 1999</i>, and the <i>Antarctic Treaty (Environment Protection) Act 1980</i> • Deliver collaborative projects with partners of the Australian Government's National Environmental Science Program, Marine Biodiversity Hub, to support management of the Commonwealth marine area • Implement a shallow-water seafloor mapping program in high-use near-shore regions adjacent to the three Australian Antarctic research stations, Casey, Davis and Mawson, in collaboration with the Australian Antarctic Division and Royal Australian Navy 	✓	✓	✓	✓
Key Performance Indicators	2018-2019	2019-2020	2020-2021	2021-2022
Availability of new marine and coastal bathymetry data via Geoscience Australia's website within six months of being compliant with data standards	100%	100%	100%	100%

3.5 Providing Fundamental Geographic Information

Environment

Australia has a vast and rich landscape. Geographic data provides the nation with a multifaceted view of Australia's landscape through time.

Geoscience data and information are a significant national resource with enduring value for the Australian community. Understanding and analysing when and where things are happening is essential for government, industry and researchers to make decisions and improve national economic, environmental and social outcomes for the nation.

Our Role

Provide reliable national fundamental information about the geographies of the nation.

Desired outcomes

- Australia has an authoritative source of national fundamental geographic information including maps, data and global navigation information.
- Australia has timely and accurate geospatial information to monitor changes to the natural and built environment through time.

Work Activities and Capability	<p>Digital Earth Australia</p> <p>Geoscience Australia, through its Digital Earth Australia (DEA) program, provides environmental monitoring products and services to government and industry through the preparation and analysis of Earth observations from satellites and other remote sensing platforms. Geoscience Australia uses images and information recorded by satellites to detect physical changes across Australia in unprecedented detail and makes this available to governments and industry for easy use.</p> <p>Geoscience Australia's work enables the processing, interrogation and presentation of Earth observation data in response to the government's priority information needs. It also supports Australia's developing digital economy by providing businesses with access to reliable, standardised satellite data that can be used to build new products and services for commercial purposes. This will generate new opportunities, particularly for small to medium sized enterprises where such data was previously out of reach.</p>
	<p>National Location Information Framework</p> <p>Australia's set of foundation spatial datasets underpin a diverse range of public safety, service delivery, policy making, law enforcement, environmental protection and economic investment decisions. Across all these sectors, informed decision making by government, business and the community depends upon access to accurate, reliable and relevant location information, that is easily accessible and able to link to other data.</p> <p>Geoscience Australia, in collaboration with other government and private sector entities, will operate components of the Australian Spatial Data Infrastructure and lead the curation of, and connection of users to, Australia's national foundation spatial datasets, including datasets related to Australia's maritime and other administrative boundaries, place names and topography.</p>
	<p>Positioning</p> <p>A national positioning infrastructure capability will provide Australians with access to highly accurate and reliable positioning information anytime and anywhere. An improved positioning capability will enhance a range of location services including, help farmers reduce costs and waste, enable the Royal Flying Doctor Service to land in more locations, make it easier to dock a ship in a busy port, and improve safety on construction and mining sites.</p> <p>Geoscience Australia is responsible for maintaining Australia's geospatial reference system, contributing to the global geospatial reference system, and providing access to these systems through positioning and geodetic infrastructure, analysis and service delivery components.</p> <p>In response to new Australian Government measures and funding, Geoscience Australia will work to make reliable positioning data accurate to 10 centimetres available throughout Australia's onshore and offshore jurisdiction. Areas with mobile coverage will have access to positioning data accurate to 3 centimetres.</p> <p>This will involve testing how Australia could potentially benefit from investing in a satellite-based augmentation system (SBAS). SBAS augments and corrects positioning signals transmitted to Australia by GPS, improving accuracy, availability and reliability. Additional work will focus on establishing a national ground station network, improving coordination across government and the private sector, and ensuring Australian industry has access to world-leading software tools for positioning.</p>

Deliverables	2018-2019	2019-2020	2020-2021	2021-2022
Digital Earth Australia <ul style="list-style-type: none"> • Deliver projects in partnership with Australian government entities that improve their efficiency and/or effectiveness through the use of Earth observation data • Work with business to enable them to capitalise on Earth observation data, and create new capabilities to increase efficiency, productivity and employment opportunities. 	✓	✓	✓	✓
National Location Information Framework <ul style="list-style-type: none"> • Maintain Australian Spatial Data Infrastructure collection management, governance, discovery and delivery systems • Provide leadership and advice to develop and operate the Australian Spatial Data Infrastructure in line with the Australian Government's Spatial Data and Open Data Policy functions • Develop and deliver information products identified in the Foundation Spatial Data Framework to support Australian Government onshore and offshore programs 	✓	✓	✓	✓
Positioning <ul style="list-style-type: none"> • Complete satellite-based augmentation system Testbed Program including financial benefits analysis report • Procurement satellite-based augmentation system follow on services • Implement national positioning information capability Open Data Sharing policy • Completion of the satellite-based augmentation system follow- on program and the National Positioning Infrastructure Capability program 	✓			✓
Key Performance Indicators	2018-2019	2019-2020	2020-2021	2021-2022
Geoscience Australia's foundation spatial data products, including authoritative representations of Australia's maritime boundaries and topography, are updated and/or accessible through interactive mapping platforms	75%	80%	85%	90%
Geoscience Australia's spatial data products meet the requirements of relevant legislation and policy implementation	100%	100%	100%	100%
Delivery of Surface Reflectance product from initial receipt of satellite data	< 90 days	< 30 days	< 14 days	< 7 days

3.6 Maintaining Australia's Geoscience Knowledge and Capability

Environment

Properly collected and archived data have an enduring value. It is essential these data are collected through appropriate means and are available in a format that is understandable and accessible.

These data are acquired from a range of platforms including satellites, observatories and laboratory instruments. Data from individual observatories or individual samples can be integrated to build models of our continent, Antarctica, island territories and surrounding oceans.

Our Role

Ensure geoscientific and geospatial data, information and collections are gathered, managed and made accessible for the use of all Australians both now and into the future.

Desired outcomes

- Australia's geoscience data, information and collections are managed and maintained.
- Australia's geoscience data, information and collections are discoverable and accessible as a public resource for informed decision making.
- Australia has as an established infrastructure to ensure the ongoing collection of fundamental geoscience data.

Work Activities and Capability

Geoscience Promotion, Education and Awareness

Greater understanding of geoscience and its application to issues of national importance builds capacity for geoscience to underpin evidence-based policies and decision-making. Geoscience Australia undertakes a range of activities to engage with our stakeholders and the Australian community to educate, promote and improve awareness of geoscience and its benefits.

Geoscience Australia's work includes the development of teaching resources and delivery of educational activities, a library that provides services to industry, universities, research centres and the public, and hosting events to promote and support Earth and National Science Weeks.

Geoscience Australia is also a leader in the use of innovative technologies to share geoscience information, including multimedia and interactive 3D viewing technologies.

Observatories

Geoscience Australia operates and maintains networks of observatories to acquire and deliver data about the Earth. The information is used to monitor land use, develop agriculture, help discover new mineral and energy resources, ensure our water security, and respond to natural hazards such as earthquakes, tsunami and bushfires. It also provides essential information about global positioning and navigation systems.

Core to Geoscience Australia's observatories work is the Alice Springs satellite ground station that provides 24 hour, 7 days a week operational capability to acquire, process and deliver Earth observation satellite data. Geoscience Australia also maintains and continuously monitors essential geophysical networks to support seismic monitoring activities.

Geoscience Australia's work will focus on maintaining and operating the observatory networks whilst undertaking a range of initiatives and projects to develop capability and improve performance through enhanced service delivery. This includes updating or replacing essential site infrastructure, seismic instruments and data delivery systems.

Petroleum Data Repository

It is a requirement under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* that petroleum exploration and production companies submit offshore data and petroleum samples to the Australian Government. The enduring value of this petroleum data and sample collection is essential to Australia's exploration industry and supports Australia's future prosperity.

Geoscience Australia is responsible for the stewardship and management of the data and samples and has developed the National Offshore Petroleum Information Management System (NOPIMS) as an online data discovery and delivery system for all Australian offshore wells and seismic surveys.

Work will focus on enhancing data management principles, further develop and expand the capability and scope of NOPIMS, and improve client access.

	<p>Science Support</p> <p>Geoscience Australia's Science Support activities provide the analytical, technical, engineering and logistical services that underpin the organisation's science and overall work program.</p> <p>Science support work will provide geophysical and geochemical datasets demonstrating hydrocarbon prospectivity in offshore acreage release areas; geochemistry and geochronology (rock ages) supporting baseline geological mapping by state and territory geological surveys; and sonar mapping and analysis and geochemistry of sea-floor samples from around Australia and Antarctica that enable broad mapping of seafloor ecosystems and the identification of vulnerable areas.</p>			
Deliverables	2018-2019	2019-2020	2020-2021	2021-2022
<p>Geoscience Promotion, Education and Awareness</p> <ul style="list-style-type: none"> Undertake activities to promote, educate and create awareness of geoscience and its benefits 	✓	✓	✓	✓
<p>Observatories</p> <ul style="list-style-type: none"> Deliver an updated version of the Australian / International Geomagnetic Reference Field model Deliver Macquarie Island Geomagnetic and Seismic modernisation project Achieve Landsat 9 Landsat Ground Network operational readiness Deliver geomagnetic and seismic data delivery systems upgrade project Operate national network of observatories Operate Alice Springs satellite ground station 	✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓
<p>Petroleum Data Repository</p> <ul style="list-style-type: none"> Operate the National Offshore Petroleum Information Management System for the discovery and delivery of petroleum data and samples Complete integration of legacy physical asset management system into the National Offshore Petroleum Information Management System 	✓ ✓	✓ ✓	✓ ✓	✓ ✓
<p>Science Support</p> <ul style="list-style-type: none"> Deliver analytical data to support Geoscience Australia's science activities 	✓	✓	✓	✓
Key Performance Indicators	2018-2019	2019-2020	2020-2021	2021-2022
Data availability from the Comprehensive Nuclear-Test-Ban Treaty network	98%	98%	98%	98%
Data availability from the seismic network	90%	90%	90%	90%
Data availability from the geomagnetic networks	98%	98%	98%	98%
Alice Springs Observatory scheduled satellite passes acquired	98%	98%	98%	98%
Repository Client Services requests are responded to within 7 business days	90%	92%	94%	96%
New <i>Offshore Petroleum and Greenhouse Gas Storage Act</i> submissions are catalogued within 5 working days	90%	92%	94%	96%

4. Financial Management

Geoscience Australia is committed to meeting whole-of-government priorities and ensuring the provision of services is as efficient and well-targeted as possible. In this context, Geoscience Australia is improving operational efficiencies, reducing administrative overheads and delivering services within a governance framework that demonstrates the benefits and value of the organisation's work.

Table 4.1 – Comprehensive income statement

GEOSCIENCE AUSTRALIA: Comprehensive income statement				
<small>(source: 2018-19 Portfolio Budget Statements)</small>				
	2018-19 Budget \$'000	2019-20 Forward estimate \$'000	2020-21 Forward estimate \$'000	2021-22 Forward estimate \$'000
EXPENSES				
Employee benefits	77,627	78,213	77,921	77,921
Suppliers	150,295	156,127	147,730	148,390
Depreciation and amortisation	8,250	9,237	9,988	10,550
Other expenses	20	20	20	20
Total expenses	236,192	243,597	235,659	236,881
OWN-SOURCE INCOME				
Sale of goods and rendering of services	40,089	40,089	40,089	40,089
Other	138	140	142	144
Total own-source revenue	40,227	40,229	40,231	40,197
Net (cost of)/contribution by services	(195,965)	(203,368)	(195,428)	(196,684)
Revenue from Government (Appropriation)	184,381	191,511	183,555	185,008
Total comprehensive income/(loss)	(11,584)	(11,857)	(11,873)	(11,676)

5. Geoscience Australia Overview

Geoscience Australia is a non-corporate Commonwealth entity within the Industry, Innovation and Science portfolio.

Stakeholders and Partnerships

Geoscience Australia works in partnership with governments, industry, publicly funded research agencies and academia to provide specialist expertise and information to support the delivery of Australian Government services.

Its collaboration with Australian Government, non-government, and international partner organisations is highly successful, with 91 per cent of stakeholders either satisfied or extremely satisfied with our overall performance.

Employees

Geoscience Australia has a highly educated and skilled workforce, spanning a number of specialist areas, including:

- Geoscientists such as geologists, geophysicists, geochronologists and geochemists
- Spatial professionals such as cartographers, surveyors and remote sensing experts
- Data management professionals
- Educators and science communicators
- ICT specialists including experts in high performance data and computing, mathematics, engineers, graphic designers
- Corporate and management professionals including human resource, finance and communication specialists.

Geoscience Australia has an average staffing level of 600. Results of the last Australian Public Service Employee Census provided results of a highly satisfied, motivated, experienced and qualified workforce.

Information Communications Technology

Geoscience Australia's Information Communications Technology (ICT) vision brings together the best of ICT and the best of geoscience and geospatial developments that will deliver optimal outcomes. This vision extends beyond the boundaries of Geoscience Australia to emerging national research and cloud infrastructures that include data, compute, storage, software, networks and people.

To view the full ICT strategy please visit Geoscience Australia's website at <http://www.ga.gov.au/about/corporate-documents>.

Risk Management

The management of risk within the organisation is in accordance with the *Public Governance, Performance and Accountability Act 2013* and the Commonwealth Risk Management Framework and is consistent with AS/NZS ISO 31000:2009 Risk management – Principles and guidelines.

Geoscience Australia undertakes periodic risk workshops and reviews on risk management. The effective application of risk management improves decision making and facilitates better outcomes for the Australian Government.