

Australian Government

**Department of Climate Change, Energy, the Environment and Water** Australian Antarctic Division

# Australian Antarctic Division Three-Year Summary to June 2026



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## 1 Introduction

Australia has a proud history in Antarctica and the Southern Ocean and has long been one of the world's leading Antarctic nations. With sovereignty over 42 per cent of the Antarctic continent – the Australian Antarctic Territory (AAT) – and sovereign rights over adjacent offshore areas, Australia has significant and long-standing national interests in Antarctica. These interests are set out in the *Australian Antarctic Strategy and 20 Year Action Plan* and its 2022 update (Strategy and Action Plan).

Australia's national interests in Antarctica, articulated in the Strategy and Action Plan, are to:

- maintain Antarctica's freedom from strategic and/or political confrontation
- preserve our sovereignty over the Australian Antarctic Territory, including our sovereign rights over adjacent offshore areas
- support a strong and effective Antarctic Treaty system
- conduct world-class scientific research consistent with national priorities
- protect the Antarctic environment, having regard to its special qualities and effects on our region
- be informed about and able to influence developments in a region geographically proximate to Australia
- foster economic opportunities arising from Antarctica and the Southern Ocean, consistent with our Antarctic Treaty system obligations, including the ban on mining and oil drilling.

The Department of Climate Change, Energy, the Environment and Water (DCCEEW) is a key agency delivering the Australian Antarctic Program through its Australian Antarctic Division (AAD). As set out in our annual Corporate Plan, the Department will advance Australia's environmental, scientific, strategic and economic interests in the Antarctic region by protecting, researching and administering in the region, including through international engagement (Outcome 3).

The AAD's ongoing presence, scientific research and environmental stewardship in the AAT, as well as our active engagement in the international forums of the Antarctic Treaty system, contribute to ensuring Australia remains a leading and influential player in the cooperative management of the Antarctic region. The AAD prioritises activities to provide for the effective and influential delivery of the Australian Antarctic Program and for the safety of our staff.

Our work is complex, high cost and in the national interest. The last ten years has seen a significant uplift in capability through the RSV *Nuyina* and increased Government investment in our business. More than ever, comprehensive planning that considers the full costs and opportunities of our activities is needed to maximise the outcomes from the program and to support our staff. The department is investing in planning at a range of levels to support this objective.

This Three-Year Summary articulates how the AAD has and will continue to prioritise the delivery of Australia's commitments in the Strategy and Action Plan, to advance our national Antarctic interests and contribute to the Government's agenda across the Department's broad portfolio.

The AAD will focus its efforts on prioritising essential projects and deliverables, and meeting commitments to government while ensuring Australia's ongoing leadership and influence in the Antarctic region and in the Antarctic Treaty system.

#### Our specific focus is on:

- 1. Looking after our people, our greatest asset
- 2. Delivering on our Australian Public Service responsibilities and obligations
- 3. Maintaining and enhancing Australia's leadership and influence within the Antarctic Treaty system, and positioning Australia as a partner of choice in East Antarctica
- 4. Conducting robust, excellent science for and in Antarctica and the Southern Ocean
- 5. Protecting and conserving the environment and repairing and managing Antarctica for future generations
- 6. Securing our operations in Antarctica and the Southern Ocean

The Three-Year Summary will be revisited annually and will evolve to support the *Australian Antarctic Science Decadal Strategy* (under development). Each year, our efforts will be guided by comprehensive project and implementation plans, including season plans. These plans will detail our methodology for executing essential projects and activities, supporting our commitments to the government and maintaining Australia's leadership and influence in the Antarctic region and within the Antarctic Treaty system.

## 2 Looking after our people, our greatest asset

As an organisation, we want to attract and retain the best people for our program to ensure we are delivering on our purpose, as outlined annually in the Department's Corporate Plan. We are committed to building a culture where difference is valued and respected, and where we work together and leverage the benefit of our diversity. We are committed to fostering a diverse and inclusive workplace where everyone feels they belong and is valued for who they are and what they can contribute.

The 2023 *Independent Review of Workplace Culture and Change at the Australian Antarctic Division* (Russell Review) found significant issues around behaviours and practices within the AAD. The review told us that we must do significantly more to put our people first and to make our workplaces safe.

We are making significant and long-term commitments to implementing the recommendations of the Russell Review in full, in line with the Department's response. We are listening and are committed to acting on what our staff have told us through the Russell Review and our regular staff surveys.

We have clear responsibilities and shared duties under the *Work Health and Safety Act 2011* and the *Safety, Rehabilitation and Compensation Act 1988*, our people's physical and psychosocial safety needs to be at the heart of everything we do, every day.

We hold ourselves to account through the Respect and Equality Reform Council, a key recommendation of the Russell Review, which oversees our cultural change efforts.

We will measure our progress through regular staff pulse surveys with a particular focus on improving our employee net promotor score which measures whether staff would recommend the AAD as a good place to work.

Cultivating and integrating cultural change takes time. While progress has been made to establish foundations, there is still more work to be done for staff to observe tangible changes.

#### 2.1 Trust

All staff have a right to feel safe in the workplace – physically and psychosocially. Building trust in the system to support people reporting harmful behaviours is a key component of our staff feeling psychologically safe. We have established foundational knowledge in reporting mechanisms and frameworks, and we will continue to invest in building our leadership capability. This includes fostering confidence in appropriately addressing poor behaviours, rewarding positive behaviours, enabling difficult conversations, managing inappropriate behaviours, and seeking assistance when behaviours exceed what can or should be managed locally.

#### 2.1.1 Safety

We are committed to continuously improving our work health and safety management. Our focus will be on ensuring both the physical and psychosocial safety of our workplaces, enhancing the effectiveness of our work systems, and fostering a culture that supports these endeavours.

## 2.2 Sustainable workloads

Workloads and resource allocation for our staff are an important focus for us. We are committed to proactively managing workloads and resource allocation to ensure the health and wellbeing of our staff while accomplishing important tasks. We will prioritise our efforts across the AAD to ensure that workload demands remain reasonable.

To support this, we will continue to refine our planning processes to better address workload pressures and resource constraints, including through the introduction of planning buffers to enable us to respond effectively to seasonal variability and unforeseen challenges.

We will also focus on quantifying the pressures we face and exploring options to address them. This data-driven approach will help us understand the challenges better and make decisions that benefit both our projects, our staff and our stakeholders.

By taking these steps, we aim to create a balanced and sustainable work environment that supports our critical Antarctic research and operations while prioritising the wellbeing of our staff. We understand the unique challenges of working in Antarctica, and we are dedicated to maintaining a healthy, motivated workforce to achieve our long-term goals.

## 2.3 Our commitments

- Implement the Department's response to the Russell Review in full
- Set a clear vision for the AAD and align our resources to that vision and our priorities
- Focus on SES and EL2 leadership
- Improve our expeditioner training processes, and continue to evolve and deliver the highly successful Expeditioner Summits
- Review our Drug and Alcohol Policy to ensure our stations are places where alcohol is consumed responsibly, at appropriate times, as a positive addition to healthy station communities
- Implement the key initiatives outlined in the AAD Safety Improvement Plan 2023-25
- Reduce our reliance on non-ongoing and contracted workforce, where appropriate transitioning these roles to ongoing positions
- Measure our progress in annual APS staff census, in regular divisional pulse surveys, and in the independent review of workplace culture in the AAD in late 2025

## 3 Delivering our Australian Public Service responsibilities and obligations

As members of the Australian Public Service, we are dedicated to upholding the highest standards of integrity and accountability in our service to the public. This commitment is deeply rooted in our department's values and principles, guiding every aspect of our work. We embrace the Secretaries' Charter of Leadership Behaviours (DRIVE), which outlines the essential qualities expected of all APS leaders: being dynamic, respectful, having integrity, valuing others, and empowering people.

These leadership behaviours are crucial in fostering an inclusive, dynamic, and respectful workplace culture. To support this, we are dedicated to ongoing investment in our people through comprehensive training, leadership coaching and development opportunities. This investment extends to all staff across the division, ensuring we continually enhance our skills and capabilities to meet both current needs and future challenges in our unique field of work.

## 3.1 Transparency and Accountability

The recommendations in the Russell Review keep us focused on the elements that underpin culture, including ensuring our systems, processes and governance arrangements support accountable decision making, appropriate allocation of resources and excellence in performance information as a means of demonstrating to the parliament, public and stakeholders how we deliver on our purposes.

In the pursuit of continuous improvement, we will review our key activities and performance measures to ensure the ongoing appropriateness and completeness of our performance information, and we will participate in parliamentary inquiries and the Australian National Audit Office (ANAO) review of the Australian Antarctic Program.

We will continue to monitor, assess and, where needed, review our governance systems and processes to ensure they are fit for purpose. This includes ensuring that our systems support expectations of accountability, transparency and integrity.

Our governance forums, including the Respect and Equality Reform Council and the Division Management Committee, will continue to issue regular meeting schedules and agendas, and transparently report outcomes to staff.

#### 3.2 Budget management

We are committed to managing public resources efficiently, effectively, economically and ethically by lifting the capability of our staff and through good governance. Our governance committees play an important role in ensuring sound budget management, including providing governance oversight and prioritisation of major investment programs, projects and assets.

We will continue to provide training, support and information to all staff on financial management – including scoping and detailed budget planning processes – to ensure adequate resources will be available to deliver the planned outcomes.

## 3.3 Good decision making

As public servants, we are entrusted with the responsibility of making decisions that align with our legislative obligations and delegated authorities. To strengthen our culture, we are actively working to enhance the transparency and clarity of our decision-making processes. This initiative aims to empower our staff to act confidently and make decisions appropriate to their roles, while ensuring that all decisions are made with the best interests of the entire program in mind.

We will also ensure that we maintain good record-keeping practices at every stage of the decisionmaking process to ensure accountability and transparency.

#### 3.4 Our commitments

- Continue to build our integrated planning process, including through this 3 Year Summary, taking a holistic, division-wide approach to key decisions about our work
- Implement our Decision Making Framework, which will guide us in making sound decisions across our diverse roles, that are in the best interests of the Australian public
- Strengthen our governance, including through a renewed internal governance structure and the establishment of a dedicated integrated planning function. This will lead to improved decision-making processes based on comprehensive, relevant information
- Focus on transparency and clear communication of outcomes to both our staff and stakeholders, fostering increased trust and understanding
- Focus on financial planning and management to ensure we deliver our outcomes within our allocated budget
- Engage constructively with external reviews and enquiries, including the Senate Environment and References Committee Inquiry into AAD funding; the Joint Standing Committee on the National Capital and External Territories Inquiry into the importance of Antarctica to Australia's national interests; and the planned ANAO performance audit of the Australian Antarctic Program

## 4 Maintaining and enhancing Australia's leadership and influence within the Antarctic Treaty system, and positioning Australia as a partner of choice in East Antarctica

We commit to making our important contribution to Australia's growing international leadership and influence. We will do this by maintaining a strong focus on environment and climate initiatives and forums across a range of unilateral, bilateral and multilateral settings, with a particular focus on our near region.

Australia was a key architect of, and one of the 12 original signatories to, the 1959 Antarctic Treaty. The Treaty is the cornerstone of the Antarctic Treaty system, which also includes the 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) and the 1991 Protocol on Environmental Protection to the Antarctic Treaty, and measures in force under those instruments.

The Antarctic Treaty system is tailored to the circumstances of the Antarctic environment, as well as the unique legal and political circumstances of the Antarctic region. It provides a strong and comprehensive international governance framework that designates Antarctica as a natural reserve devoted to peace and science, and establishes key principles including freedom of scientific investigation, comprehensive environmental protection, international cooperation and non-militarisation.

Australia's support for, and commitment to, the stability of the Antarctic Treaty system is identified by government as a key national interest in Antarctica and remains a priority.

## 4.1 Leadership and influence in International Forums

Given the international governance arrangements applicable to the Antarctic region, the challenging operating environment, and the level of effort required to address key science questions of significance to the region and the broader world, our international engagement is critical for advancing Australia's national interests.

## 4.2 International cooperation on logistics, policy and science

Our Australian Antarctic Program is highly collaborative with partnerships across government and more than 150 national and international research institutions. Our staff represent Australia, working with other countries to undertake cooperative actions across science, policy and logistics activities.

## 4.3 Stakeholder familiarisation program

The Australian Antarctic Program includes a 'Stakeholder Familiarisation Program' to build support, understanding and engagement in Australia's Antarctic science, operations, environmental stewardship, and policy and international collaboration objectives.

Through this program, we will continue to opportunistically support visiting external stakeholders to meet with expeditioners on the ice, and to better experience and understand the challenges they face undertaking research and operations in one of the most remote and hostile environments on the planet.

## 4.4 Antarctic gateway

We will continue to support efforts led by the Tasmanian Government and Department of Foreign Affairs and Trade to highlight the important role the five global Gateway cities play, and showcase Hobart as a leading gateway city and hub of Antarctic science, medicine, education, research and logistics and to attract and retain international events and organisations to Hobart.

## 4.5 Our commitments

- Lead and contribute to Australia's engagement in international discussions on protecting the Antarctic environment, including through:
  - promoting international efforts to understand and address the key environmental challenges facing Antarctica, drawing on the best available Australian and international science, through the Committee for Environmental Protection (CEP) under the Protocol on Environmental Protection to the Antarctic Treaty
  - promoting the conservation of Antarctic ecosystems and marine living resources under the Convention for the Conservation of Antarctic Marine Living Resources and through its Commission (CCAMLR), and consistent with Australia's national interests, including ecosystem-based management of fisheries in the Southern Ocean, drawing on the AAD's sustainable fisheries management and ecosystem research
  - advocating for a representative system of marine protected areas in the Southern Ocean, including in East Antarctica
  - supporting development of a consistent and comprehensive international framework for the regulation and management of Antarctic tourism and other non-government activities
  - driving improvements in the global protection of seabirds through active engagement in the Agreement on the Conservation of Albatrosses and Petrels (ACAP), including as Chair of the Advisory Committee for ACAP
  - supporting the Department of Foreign Affairs and Trade as lead agency on engagement in the Antarctic Treaty Consultative Meeting (ATCM)
  - contributing to the International Whaling Commission's non-lethal Southern Ocean Research Partnership (IWC-SORP), including leading the IWC-SORP Secretariat and active participation in each of the seven research themes, including co-leadership of two
- Plan for further inspections of other countries' facilities in Antarctica over the next five years.
- Continue to seek opportunities for Australia to take on positions of influence in Antarctic governance forums.

## 5 Conducting robust, excellent science for and in Antarctica and the Southern Ocean

We invest in Antarctic science that delivers on Australia's significant strategic interests, supports our commitment to action on climate change and is integrated with our operational capabilities.

Our scientists are an integral part of Australia's engagement in Antarctica and the Southern Ocean. The science undertaken within our Science Program is critical to meeting legislative and regulatory requirements under Australian law, as well as Australia's international priorities including under the:

- Antarctic Treaty system agreements and associated forums, including ATCM, CEP and CCAMLR
- International Whaling Commission (IWC)
- Agreement on the Conservation of Albatrosses and Petrels (ACAP)
- Comprehensive Nuclear Test Ban Treaty (CTBT)

Our science also delivers input to the Intergovernmental Panel on Climate Change, Montreal Protocol, World Meteorological Organization, Scientific Committee for Antarctic Research, United Nations Environment Programme, Convention on Biological Diversity, Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, International Civil Aviation Organization, International Convention for the Safety of Life at Sea, Convention on the Conservation of Migratory Species of Wild Animals, Global Ocean Observing System, International Union for Conservation of Nature, Pacific Tsunami Warning System, World Heritage Committee, World Glacier Monitoring Service and others.

As the Administrator of the Australian Antarctic Territory and the external Territory of Heard Island and McDonald Islands, we undertake activities relevant to the provisions of:

- Antarctic Treaty (Environment Protection) Act 1980
- Antarctic Marine Living Resources Conservation Act 1981
- Environment Protection and Management Ordinance 1987, under the *Heard Island and McDonald Islands Act 1953.*

Our research efforts support Australia's delivery of a world-class Antarctic science program and are focused on addressing our most important science needs. This includes the role of Antarctica in the global climate system, the implications of climate change for Australia, the need to understand and conserve Antarctica's biodiversity and unique life forms, to protect the Antarctic environment, and to support sound environmental stewardship in the region.

## 5.1 Major science campaigns

Antarctic science is highly collaborative, bringing together researchers from across Australia and around the world.

Over the coming seasons, we will conduct four large, multi-disciplinary and collaborative science campaigns.

## 5.2 Million Year Ice Core project Multi-year campaign: 2022-23 – 2026-27 and beyond

We are leading one of the most ambitious and challenging scientific projects in Antarctica – the quest to drill a series of ice cores that can provide a continuous million-year plus record of Earth's climate and atmospheric composition. These ice cores will allow scientists to determine the cause of changes in ice age cycles and understand future climate change.

Modelling, supported by extensive ground and aerial surveys, indicates that the ice at Dome Concordia North – high on the Antarctic plateau and approximately 1200 km from Casey Station – is thick enough, with undisturbed and highly resolved ice layers that are expected to hold Antarctica's most detailed continuous climate record, spanning well over a million years of Earth history.

Australia has assembled a high-powered, heavy-duty modern traverse capability able to tow a mobile station, camp infrastructure and equipment. This 500-tonne convoy will travel the 1200 km from Casey research station to the drill site. Multiple traverses over future years will deliver and sustain the inland station at Little Dome C to support the million-year ice core project.

## 5.3 Denman Terrestrial Three-year campaign: 2022-23 – 2024-25 seasons

We have established a deep field camp in the Bunger Hills, approximately 450 km west of Casey Station, for a collaborative scientific program studying the Denman Glacier region. The Denman Glacier is vulnerable to climate change and holds the potential to raise global sea levels by 1.5 metres on its own.

Research is focused on understanding the risk of ice mass loss on timescales from the next few decades to centuries. It is also looking at responses of biodiversity to climate and environmental change and will support the assessment of human impacts and environmental management.

Scientists are collecting sediment and ice samples to understand geological and glaciological history, and soil, water and moss samples to map biodiversity trends and deploy seismic, magnetotelluric and gravity instruments to monitor glacier stability and understand the surrounding geology.

This research will provide data to global bodies which inform national and global decision making on climate change, including the Intergovernmental Panel on Climate Change and the World Climate Research Program.

The campaign brings together AAD, the Australian Antarctic Program Partnership (AAPP), the Australian Centre for Excellence in Antarctic Science (ACEAS – University of Tasmania) and Securing Antarctica's Environmental Future (SAEF – Monash University).

## 5.4 Denman Marine One-year campaign: 2024-25 season

In the 2024-25 season we will support a major marine science program that will study the features, processes and changes of the Denman Glacier, linked to fieldwork undertaken during the Denman Terrestrial Campaign. The campaign will take advantage of the state-of-the-art scientific capabilities of the RSV *Nuyina*, which provides the opportunity for multidisciplinary science to be undertaken on board.

This collaborative project will bring together scientists from the AAPP, ACEAS and SAEF programs, and the AAD. The research outputs from the voyage will support national and global decision making about climate change responses and adaptation and deliver on a number of priorities in the Australian Antarctic Science Strategic Plan.

## 5.5 Heard Island and McDonald Islands

## One-year campaign: 2025-26 season

Heard Island and McDonald Islands (HIMI) is a spectacular and unique area of the world with considerable conservation significance. It is Australia's most remote external territory.

A formal management visit to the islands will provide an opportunity to conduct important science and environmental management to fulfil our responsibilities to administer the external territory of HIMI, including implementing the *HIMI Marine Reserve Management Plan*.

To meet statutory and international obligations, research and activities during the visit will focus on:

- increasing our understanding of listed, endemic and threatened species and their habitats
- gaining a baseline understanding of the expanded marine reserve
- assessing and managing the impacts of human activities
- increasing our understanding of climate change impacts on HIMI
- identifying and managing non-native species.

This science will be used to guide future conservation management decisions.

## 5.6 Critical science supported by our stations and the RSV Nuyina:

Our world-class science program is critical to meeting legislative and regulatory requirements, international obligations and other national priorities. It is focused on key themes of:

- climate science including atmospheric research, sea-ice, ice sheets and sea level, and ice core past climate
- environmental stewardship including area protection, non-native species, increased understanding of the impacts of physical disturbance from human activities, assessment and remediation of legacy waste and contamination, and operational environmental monitoring
- long term observational and monitoring programs critical to our understanding of change and adaptation of species such as penguins and flying seabirds and terrestrial and near-shore marine ecosystems

- Southern Ocean ecosystem research focused on informing sustainable fisheries (finfish and krill) management and sustainable management and conservation of the krill-based ecosystem including krill predators (seabirds and penguins; marine mammals, fish) and critical krill habitat and prey
- acquisition, analysis, synthesis and curation of Antarctic and Southern Ocean data, including to inform mapping.

Over the coming seasons, we will continue to support projects that have been rigorously assessed to represent scientific excellence and strategic importance, operational and technical feasibility and which have been deemed to have impact, relevance and value.

#### 5.6.1 Sustainable fisheries

Our scientists will continue to provide the best available science to support Australia's fisheries management frameworks that ensure the sustainable and ecosystem-based management of all fisheries and their ecosystems in the Southern Ocean including science to support the designation and management of marine protected areas.

#### 5.6.2 Krill research

We will continue to examine aspects of the biology of krill that will contribute to the sustainable management of the krill resource.

The combination of survey work, experimental research and theoretical analysis provides a comprehensive and world-leading approach to the study of krill and is an important contribution to the goal of protecting the Antarctic environment.

#### 5.6.3 Build a new world-leading Southern Ocean research aquarium

Southern Ocean ecosystems are experiencing a period of rapid warming, acidification and sea-ice loss. In order to predict the outcomes of these changes on an ecosystem scale, the physiological tolerances and behavioural adaptability of key species that support the ecosystem must be well understood.

While Antarctic krill play a critical role, so do many species of fragile plankton which until now have been unavailable in live condition for research. RSV *Nuyina*'s unique wet well and aquarium system has been proven to capture and maintain these species in premium condition for research which can now extend long beyond the duration of a voyage.

In recognition of the importance krill play in the Southern Ocean ecosystem and the leading role Australia plays in krill research, we will build a new marine research facility co-located with the University of Tasmania. The new facility will provide sufficient state of the art terrestrial research space to continue research on these key species long after a voyage, enabling experts from around the world to conduct research with premium quality live specimens and a range of life stages.

The enhanced capability delivered through the Southern Ocean research aquarium signals Australia's intention to continue to lead in Southern Ocean ecosystem research and, as a consequence, will strengthen our leadership and influence within the ATS.

#### 5.6.4 Antarctic Climate

Using our unique Antarctic research infrastructure and through collaboration with national and international researchers, we will continue to provide fundamental understanding and long-term monitoring of Antarctic climate processes to improve modelling, forecasting and climate projections.

#### 5.6.5 Marine conservation and management

We have designed a monitoring program of sustained and long-term scientific observations to assess the status and trends of Antarctic wildlife, particularly of seabirds and seals, and the threats these populations face from fisheries, climate change and human footprint.

#### 5.6.6 Southern Ocean Ecosystems

Southern Ocean ecosystems are threatened by many factors, including global warming, ocean circulation changes, ocean acidification, sea-ice retreat, invasive species and increased exploitation by humans.

To detect and understand ecological changes in the Southern Ocean, we have designed program of observations, experiments, monitoring and modelling.

#### 5.6.7 Supporting our partners

The Australian Antarctic Program is highly collaborative, comprising over 150 partnerships across government and with national and international research institutions.

We will continue to provide logistics support for activities undertaken in Antarctica and the Southern Ocean by the Australian Antarctic Program and work closely with our partners to deliver Antarctic science that is aligned with Australia's national interests.

#### 5.6.8 Government partners

We work with our partners across Government and the sector to:

- support and maintain nuclear and seismic monitoring systems which contribute to compliance with international commitments and support early tsunami warnings for Australia and our Indian Ocean-region neighbours
- support and maintain geodetic and geophysical observing systems, which inform global positioning and navigation systems
- provide a continuous, quality managed and long-standing record of weather observations from Australia's four year-round research stations, providing Australians and the global community with information to research and monitor Antarctica's weather and climate, and help understand Antarctica's role within the larger Earth system
- support effective conservation of the natural and historic values of the Macquarie Island Nature Reserve and World Heritage Area, and the management of human impacts associated with the operation of our scientific station and associated infrastructure in the reserve.

#### 5.6.9 Australian Antarctic Program Partnership

The Department provides funding (\$50 million over 10 years, concluding in 2029) and manages the arrangement with the Australian Antarctic Partnership Program (AAPP) to support research that aims

to understand the role of the Antarctic region in the global climate system and the implications on marine ecosystems.

#### 5.6.10 Australian Research Council Funded Special Research Initiative

As a party to agreements in place to deliver the Australian Research Council Funded Special Research Initiative in Antarctic Science, we will continue to support the Securing Antarctica's Environmental Future (SAEF) Monash University (\$37 million over 9 years, concluding in June 2030) and Australian Centre for Excellence in Antarctic Science (ACEAS) University of Tasmania (\$20 million over 6 years, concluding in December 2027) to deliver critical science from all four of our research stations and the RSV *Nuyina*.

## 5.7 Our commitments

Over the period to June 2026, we will:

- Deliver priority Antarctic science that advances Australia's interests, and publish 75 peerreviewed publications each financial year
- Improve the coverage, resolution and/or data domains across various maps and charts in Antarctica and the Southern Ocean
- Begin drilling, in the 2024-25 season, to retrieve ice cores to a depth of approximately 150 metres. In each subsequent season, the drilling team expect to retrieve between 900 and 1200 metres of ice
- Complete three years of fieldwork for the Denman Terrestrial Campaign in the 2024-25 season, with results and analysis to be published over the next two years
- Complete two dedicated voyages on RSV *Nuyina*: the Denman Marine Voyage in 2024-25 and the Heard Island and McDonald Islands voyage in 2025-26
- Complete the cold shell building for the Southern Ocean Research Aquarium, with design fit out underway
- Finalise a decadal science plan in 2024 to guide the next ten years of Antarctic science
- Continue to engage with the Antarctic science community, including through the Australian Antarctic Science Council, to deliver strategic, integrated and effective Antarctic science
- Continue to improve coordination and governance of scientific funding for Antarctic research

## 6 Protecting and conserving the environment and managing Antarctica and the Southern Ocean for future generations

## 6.1 Environmental Stewardship

We lead delivery of Australia's commitment to protect the Antarctic environment and to be a best practice leader in environmental stewardship, including through:

- research to understand and address environmental challenges
- best practice environmental regulation of all Australian activities
- managing and monitoring the environmental performance of the AAP to minimise impact from current and future activities
- addressing impacts from past activities
- providing meaningful and influential input to international forums including ATCM/CEP and the Council of Managers of National Antarctic Programs (COMNAP) based on the best available scientific data, and applied case studies

Our Cleaner Antarctica science program aims to deliver a costed, actionable clean-up strategy.

The Antarctic Treaty (Environment Protection) Act 1980 (ATEP Act) is Australia's central Antarctic environmental law. It implements Australia's obligations arising from the Protocol on Environmental Protection to the Antarctic Treaty, and requires that all Australian activities in the Antarctic Treaty area (south of 60 degrees south) are assessed to identify their likely environmental impact prior to commencement. The ATEP Act further specifies that authorised activities should be monitored to ensure they are carried out in accordance with their environmental authorisation, to verify their actual impact on the environment, and ensure the effectiveness of protection measures.

We administer this and other Antarctic and sub-Antarctic legislation as a best practice regulator and leader in environmental stewardship, and plan and conduct all our Antarctic activities in keeping with its requirements.

We also seek to reduce our carbon footprint as part of whole of Government commitments to have a net zero public service by 2030.

## 6.2 Cultural and natural heritage management

We are committed to the protection, conservation and management of our natural and cultural heritage places and artefacts in the sub-Antarctic and Antarctic regions through a nature positive approach. The AAD is responsible for statutory management processes in Antarctica and the Southern Ocean.

#### 6.2.1 Heritage collection

Australia has a long history of involvement with Antarctica. Over this time, we have accumulated a large collection of heritage objects telling the story of Australia's evolving interests, research and engagement in the region.

To preserve these objects, we partner with the National Museum of Australia (NMA) to manage the National Antarctic Heritage Collection. Many objects never seen by the public will be preserved by the NMA before being made accessible for display – allowing museums across Australia to share the story of our exploration and scientific endeavour to the public by 2025.

#### 6.2.2 Mawson's Huts Historic Site Management Plan

As the only surviving complex from the 'Heroic Era' of Antarctic exploration, Mawson's Huts are of national and international heritage significance.

#### 6.2.3 Mawson Station Precinct Management Plan

Mawson Station was one of the first permanent stations in Antarctica. Its buildings demonstrate a unique mix of construction styles that date back to the advent of Australia's engagement on the continent.

#### 6.2.4 Heard Island and McDonald Islands Management Plan

Heard Island and McDonald Islands (HIMI) is a spectacular and unique area of the world with considerable conservation significance. HIMI is afforded the highest levels of protection through inscription on the World Heritage list and through the proclamation of the HIMI Marine Reserve.

The 2025-26 HIMI expedition will enable the AAD to conduct management activities that address our domestic and international obligations on the islands and in the surrounding waters. It also provides an opportunity to collect significant new data that will support the design and implementation of adaptive management actions in the future.

## 6.2.5 Threat Abatement Plan for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations

The threat abatement plan sets requirements for the Commonwealth and its agencies to respond to the impact of oceanic longline fishing on seabirds. It also identifies the research, management and other actions needed to reduce the impacts of the key threatening process to an acceptable level. Implementing the plan has seen a significant reduction in the bycatch of seabirds from longlining.

## 6.3 Our commitments

- Support restoration of the Denman Terrestrial site at Bunger Hills and Davis Aerodrome Project site in the Vestfold Hills
- Develop an environmental impact minimisation strategy, including waste management
- Develop a whole-of-program environmental auditing and response plan
- Develop an AAD Net Zero Strategy and Implementation Plan to inform the DCCEEW approach to commitments under the APS Net Zero by 2030 Target
- Undertake comprehensive contaminated site assessments at all Australian stations and field camps, including Wilkes
- Develop science and technology to assist clean-up including conducting Antarctic relevant risk and environmental target research
- Remediate major contemporary fuel spill sites at Casey station
- Conduct environmental impact assessments and issue environmental authorisations for Australian activities in the Antarctic and Southern Ocean, and at Heard Island and McDonald Islands (as per legislative obligations) and monitor and enforce compliance
- Develop a new management plan for the Mawson's Huts Historic Site to meet obligations arising from the inclusion of Mawson's Hut on the National Heritage List (in 2005) and Commonwealth Heritage List (in 2004).

- Develop a new management plan for the historic structures at Mawson Station that recognises the ongoing heritage values of the site and the challenges in ensuring Mawson Station is maintained as a safe, active worksite
- Complete the 10-year statutory review of the *Heard Island and McDonald Islands Marine Reserve Management Plan,* including consultation on a proposal to expand the existing reserve
- Commence drafting a new Heard Island and McDonald Islands Marine Reserve Management Plan

## 7 Securing our operations in Antarctica and the Southern Ocean

Our permanent research stations and the ongoing scientific and operational activities of the AAP provide Australia with a strong presence in the region.

We manage a diverse range of assets, spread between our headquarters in Kingston in Tasmania, Macquarie Wharf in Hobart, at Macquarie Island and in the Australian Antarctic Territory. We maintain three permanent year-round research stations in the Australian Antarctic Territory (Casey, Davis and Mawson) and a fourth sub-Antarctic research station on Macquarie Island.

These stations are supported by shipping (provided primarily by the RSV *Nuyina*) and an aviation service to and within Antarctica centred around the Wilkins Aerodrome, which operates as a summer-only station.

Over the coming seasons, we will continue to drive an integrated, strategic approach to operations across the Australian Antarctic Program and with partners:

- Our operational planning will be informed by, and will deliver on, our strategic priorities
- Our Operations Management Centre (OMC) will direct and coordinate program-wide operations
- Our partnership with Defence on Operation Southern Discovery will deliver Australian Defence Force support to the AAP

## 7.1 RSV Nuyina

The 2023-24 season was the first full season of operations for the RSV *Nuyina* – Australia's state-ofthe-art icebreaker launched in 2021. The RSV *Nuyina* has been designed to support advanced scientific research over its 30-year lifespan and provide Australia with world-leading scientific capabilities.

## 7.2 Autonomous Systems

We will take opportunities to trial and deploy new autonomous technology to remote locations to expand our operational presence across the AAT at low cost and reduced risk.

## 7.3 Aviation

Aviation services are an integral part of our Antarctic operations to support science, safety and logistics resupply of the Australian stations including medevac capability during the summer season.

Helicopters primarily operate from Davis Station, RSV *Nuyina* or deep field locations. They also provide a rotary wing MEDEVAC capability to the station or ship.

## 7.4 Stations

Our stations are like small towns, with populations at each station ranging between 30 to 120 expeditioners over summer, and 18 to 30 expeditioners over the winter months. Each season approximately 500 expeditioners travel south with the Australian Antarctic Program.

Physical deterioration has become noticeable at our stations, deep field camps and the Wilkins Aerodrome, despite ongoing maintenance. These buildings have now reached, or are close to reaching, the end of their serviceable life.

We are working to upgrade our assets and infrastructure at Australia's Antarctic research stations. This long-term investment in Antarctic infrastructure renewal will help transform the Australian Antarctic Program, by renewing, modernising and upgrading infrastructure, assets, technology and equipment, while also reducing carbon emissions and supporting a net zero future for East Antarctica.

#### 7.4.1 Macquarie Island

The Macquarie Island research station continues to support long term scientific monitoring programs by the Bureau of Meteorology, Geoscience Australia, and the Australian Radiation Protection and Nuclear Safety Agency.

In the 2024-25 Budget, the Government announced \$371.1 million over nine years to build a new station in a more secure site. The first stage of this project, over the next three years, is to ensure that the existing station is remediated and fit for habitation to support operations until the new station is commissioned in 2033.

Our operational priorities at the station over the next three years, therefore, support the continuity of research in the Southern Ocean by ensuring the safety and usability of the current facility. Concurrently, the project will develop design and delivery options for the new station construction (expected to begin on-site in four years' time).

## 7.5 Our commitments

- Complete the science commissioning of the RSV *Nuyina*'s science systems, to ensure that its science capabilities can be fully leveraged to support science into the future
- Complete the commissioning of the RSV *Nuyina*'s science tender's science systems, to ensure its science capabilities can be fully leveraged to support science into the future
- Developed additional RSV *Nuyina* science capabilities such as sediment coring, ship-based drone operations and a sea-ice observatory, to enhance our underway science and marine science voyage capabilities
- Progress a long-term solution for refuelling and berthing for the RSV *Nuyina* with the Tasmanian Government
- Renew our aviation contracts to increase program safety, with flow-on benefits for increased logistical capability and range into the field for ship launch and land-based science expeditions
- Transition away from fuel drums in Antarctica at Casey and Davis stations improving logistics, safety, and environmental outcomes

- Develop a comprehensive masterplan for our Antarctic and sub-Antarctic research stations to inform future infrastructure works
- Continue upgrading accommodation spaces to improve station liveability, safety and spaces that promote expeditioner wellness
- Conduct hazardous material audits and develop a long-term management plan
- Upgrade critical site services including communication systems, power generation, water infrastructure and waste treatment to provide a reliable, adaptive platform for future science.

#### 7.5.1 Casey

Activities to 2026 include:

- upgrades to the Utility Building Food Stores
- installation of a new Melt Bell Pontoon and supplementary bulk fuel storage
- demolition of the old waste water treatment plant
- upgrades to the Red Shed accommodation cold porch to accommodate the larger summer populations
- deliver the ICT Uplift and Transceiver Hut replacement

#### 7.5.2 Mawson

Activities to 2026 include:

- installation of a new wastewater treatment plant and replacement of the sewer line
- refurbishment of the Red Shed accommodation building
- repairs to the wharf and construction of the mooring bollard
- replace the mechanical workshop flooring
- deliver the ICT Uplift and Transceiver Hut replacement

#### 7.5.3 Davis

Activities to 2026 include:

- refurbishment of our operations building accommodation
- increase water storage capacity to 1.8 megalitres with a new water tank and installation of a new reverse osmosis desalination plant
- upgrades to the high voltage network

#### 7.5.4 Macquarie Island

Activities to 2026 include:

- construction of a new Southern Electrical Distribution Hut
- upgrades to in-ground site services
- installation of coastal erosion/storm surge protections and landslip risk mitigation works

- refurbishment of Hass House, Bunk house, Garden Cove buildings, and the Bauer Bay, Brothers Point and Hurd Point field huts
- construction of temporary accommodation pods
- refurbishment and repurposing of current Science and Operations building into a Communications and Bureau of Meteorology office

#### 7.5.5 Wilkins

Activities to 2026 include:

- remediation works on the garage
- replacement of the Medical MECC shelter