National Environmental Science Program

Climate Science Research Plan 2026

Version	Date of issue	Author	Comments
1	5 Aug 2025	DCCEEW Science Partnerships	Research Plan template updated
2	11 August 2025	Climate Systems Hub	Sent to HSC for endorsement at 25/8/25 meeting
3	19 September 2025	Climate Systems Hub	Final review and edit
4	17 November 2025	Climate Systems Hub	Review following DCCEEW feedback

Certification of research plan

Hub Leader certification

As the Hub Leader, I certify that:

- the research projects contained in the research plan are linked to the Activity Outcomes for the Climate Systems Hub as outlined in the funding agreement
- funds are available to meet all projects included in this research plan
- this research plan was prepared in consultation with the Hub Steering Committee.

Signature:	
Name:	Jaclyn Brown
Position:	Hub Lead
Date:	10/9/25

Hub Steering Committee Chair certification

As the Hub Steering Committee Chair, I certify that:

- this research plan was prepared in consultation with the Hub Steering Committee
- any issues of concern or matters raised during steering committee meetings or by the Department during its assessment process have been adequately resolved, amended or incorporated into this research plan
- this research plan was endorsed by the steering committee on 25 August 2025.

Signature:	
Name:	Jo Mummery
Position:	Steering Committee Chair
Date:	30/09/25

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Introduction

The National Environmental Science Program

The National Environmental Science Program (NESP) is a long-term commitment by the Australian Government to environment and climate research. The program:

- provides evidence for the design, delivery and on-ground outcomes for environmental programs
- helps decision-makers, including from Indigenous communities, to build resilience
- supports positive environmental, social and economic outcomes.

The first phase of NESP invested over **$145 million** (2014–15 to 2020–21) into six research hubs and emerging priority research projects. The second phase is investing **$149 million** (2020–21 to 2026–27) into four new research hubs. These hubs are:

- Resilient Landscapes Hub
- Marine and Coastal Hub
- Climate Systems Hub
- Sustainable Communities and Waste Hub.

NESP is administered by the Department of Climate Change, Energy, the Environment and Water (the Department). More information on NESP is available at www.dcceew.gov.au/science-research/nesp.

Department role

The four NESP hubs have been formed to conduct applied research within their specific themes and lead a cross cutting functional initiative in their area of expertise. Each activity year the Department will work with the Minister, the Hubs and other key stakeholders to identify and refine research priorities and develop projects that align with these priorities.

This annual review and evaluation of current and future research outputs and impact provides the flexibility needed for the hubs to engage in new themes of research in an adaptive manner and ensures that the focus is on the delivery of relevant and practical research. Hubs are responsible for co-design of the research projects in consultation with research-users and in partnership with relevant Indigenous researchers and communities. Hubs are also responsible for monitoring and evaluating the research project outcomes during the life of the hub in line with the NESP program evaluation framework.

The research prioritisation is a rolling process and will be informed by key milestones in each activity year, such as the annual progress report and submission of the following research plan.

Hub role

The Climate Systems Hub is tasked with undertaking research and activities that target four research scope areas:

- progress the development of national climate services capabilities and systems
- contribute to the development of the next generation of climate projections

- lead the further development of Australia's global climate model, ACCESS
- advance understanding of Australia's climate systems and processes.

In addition to delivering these research outcomes, the hub is:

- delivering to the outcomes of four cross-cutting initiative research portfolios through co-design and integration of these outcomes in research activities
- investing in and strengthening Indigenous partnerships
- utilising data management for optimal delivery of decision support tools
- communicating research outcomes to end-users across government, industry and communities.

These activities are delivered in support of practical management outcomes required to address the nation's climate change challenges. We are also building collaborative linkages with the other three NESP hubs to deliver these practical outcomes.

The Climate Systems Hub operates on the principals of co-design, incorporating a diverse inclusion of stakeholder and next-user opinions and needs. We will continue to invest in co-design, co-production and co-delivery of outputs with our stakeholders. Ultimately the Climate Systems Hub strives to constructively contribute to the overall success of all four hubs and cross-cutting initiatives comprising delivery of the NESP Phase 2 program.

Purpose of research plan

This research plan was developed by the Climate Systems Hub, in consultation with the Department and other key stakeholders.

The purpose of the research plan is to outline:

- the research priorities the hub is funded to investigate, including those related to the cross-cutting initiative the hub is funded to lead
- the research projects that will address these priorities
- how the research projects will be co-designed and delivered to research-users
- how the outputs of the research will be communicated with key stakeholders
- how hubs will work collaboratively within and across hubs.

This research plan also provides summary information on the management and governance of the hub, including the broad funding profile, key staff and research organisations, and the risks that need to be monitored to ensure success.

Initiatives

In addition to its hub-level research projects, each hub is also responsible for delivering a cross-cutting initiative and contributing research to other initiatives where appropriate. The initiative includes cross-hub collaboration and may include multiple projects to deliver management options, data and information for the themes listed below.

The four initiatives are:

Initiative	Lead hub
Protected place management	Marine and Coastal

Threatened and migratory species and threatened ecological communities	Resilient Landscapes
Waste impact management	Sustainable Communities and Waste
Climate adaptation	Climate Systems

Emerging priorities

Each year, specific emerging priorities (EP) may be identified by the Department, Hubs or third parties for delivery as research projects. If endorsed by the Department, the Hub will develop research project/s to address the emerging priority.

Hubs will be flexible and adaptable to respond to EP, with the ability to rapidly scale output, bring in external expertise or respond if additional resources are made available. Hubs were required to set aside 10% of NESP funding being spent per calendar year up to and including RP2024 so they could respond to EP; these funds can be rolled into subsequent years if they are not used.

> In RP2026, hubs will not be required to set aside funds in 2026 and 2027 for EP projects **EXCEPT** to cover projected spends on EP projects already approved.

There is a separate process for any EP project proposals. EP projects approved during that process will then need to be added to future research plans Attachments A and C. EP projects must also be included in subsequent annual progress reports.

Research

Research priorities

The Climate Systems Hub is committed to a body of activity that includes short- to long-term research projects, initiatives and emerging priorities.

Broadly, the research priorities of the Climate Systems Hub are:

- to maintain our world-class capability in multidisciplinary Earth system science and modelling (Projects CS5.1, 5.2, 5.3, 5.4)
- to advance understanding of Australia's climate variability, extremes and associated drivers, including the fundamental drivers of climate risk in the Australian region (Projects CS 5.5, 5.6, 5.7)
- to develop applied decision-making tools and information to inform policy and programs to prepare Australia to manage emerging risks and opportunities (Projects CS5.8, 5.9, 5.10)
- cross-Hub coordination for the 'climate adaptation' functional initiative to support climate information to Hubs to drive integrated adaptation research across the program to support evidence-based decision-making and improve Australia's climate resilience (continuation of Projects CS 2.1, 4.1, 4.3).

Hub research projects

A list of research projects to be funded under the Climate Systems Hub can be found at Attachment A – Research project list. For more detail on each specific project, please refer to the Hub website.

Climate Adaptation Initiative projects

The Climate Systems Hub is leading the Climate Adaptation Initiative.

Broadly, the research priorities of the initiative are:

Support integrated research across the program to improve the evidence base for adaptation decision making for climate resilience;

Each project in the Research Plan has a knowledge brokering component involving co-design with end users and a plan to deliver communications products. Further, Adapt Land and Sea (Project CS4.3) continues as a unified way to deliver the best of our scientific insights to users. This portal integrates knowledge across this Hub and the others as a central point to support adaptation. The other three NESP Hubs are also contributing their climate insights to the Adapt Land and Sea portal as per their Research Plans.

Marine and coastal ecosystem management for sea-level rise and ocean acidification;

Research through the life of the Hub has included a focus on sea-level rise and coastal inundation. In this final phase, we are including a project that directly addresses how to ensure this knowledge arrives in the hands of decision makers in a usable format. Project CS5.9 is co-developing user-friendly tools, such as flood likelihood overlays, to help stakeholders understand the frequency and likelihood of coastal flooding, enabling more informed decision-making for infrastructure planning and climate adaptation.

Building traditional cultural knowledge into climate understanding and working with indigenous communities to help them adapt to the changing climate;

The Hub continues to support the National First Peoples Platform on Climate Change, notably with The Gathering held in October 2024. We will continue to build our shared lessons on traditional knowledge on climate and efforts to adapt to climate change through support of:

- our Senior Indigenous Facilitator
- outcomes of The Gathering
- the Steering Committee of the Platform.

Project CS5.10 is directly engaging with Indigenous communities in the development of products that can contribute to IPCC Assessments. The project will draw on the outputs and researchers in each of our other projects.

Research projects falling under the initiatives are also identified in Attachment A – worksheet Research projects. For more detail on each specific project, please refer to the Hub website.

Expected outcomes and outputs

The expected outcomes of NESP are to produce research that:

- enhances our understanding of Australia's environment and climate
- is communicated clearly to relevant stakeholders and the public
- is discoverable and accessible
- informs decision-making and addresses environmental priorities.

NESP research is expected to inform the Department's policy and program delivery. More broadly, it will engage and inform key stakeholders with an interest in the outputs of environmental and climate science research, including state and local governments, business and industry, community groups, Indigenous and non-Indigenous land managers, Indigenous communities, and education institutions.

Hub outcomes and outputs

The suite of projects that make up our effort in 2025 and 2026 directly map to the four research priorities of the Hub (listed above) and are outlined according to this structure below.

In RP2026, the Hub is seeking approval to extend an existing project (CS2.1) and amend an existing project (CS5.6). No new projects are proposed.

The envisaged outcomes and outputs of the program that we expect from these research priorities are outlined in Figure 1.

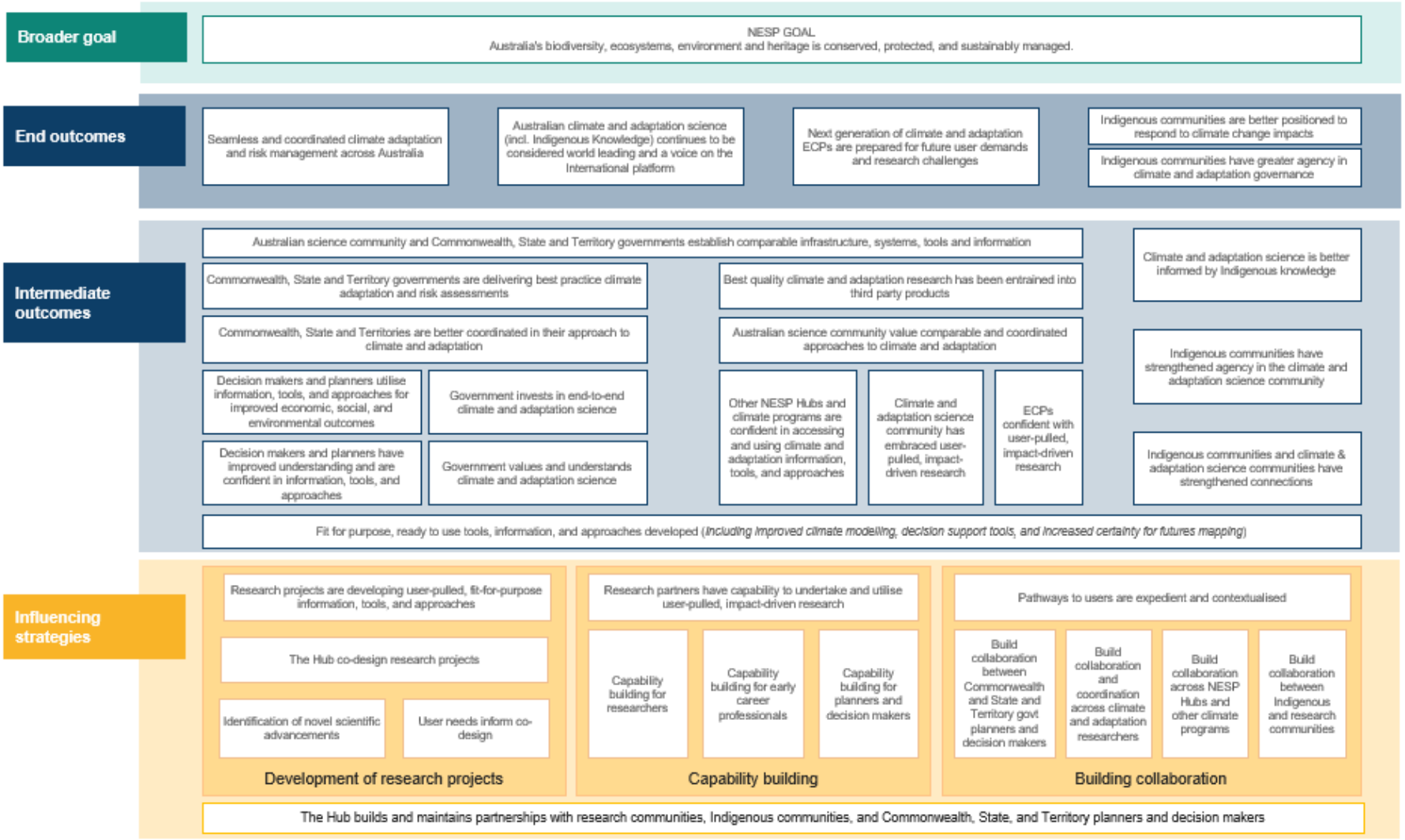


Figure 1. Updated theory of change for the Climate Systems Hub illustrating how our research activities are intended to deliver to end outcomes.

Projections of Australia's Carbon and Climate: to maintain our world-class capability in multidisciplinary Earth system science and modelling (research priority one).

- CS5.1 ACCESS Development and Delivery to CMIP7
- CS5.2 Global Carbon Budgets and the role of Terrestrial Carbon Sinks
- CS5.3 Uncharted Climate Futures
- CS5.4 Projection Verification

We develop Australia's future earth system models, to understand current and future climate and carbon balances, and explore how well these systems capture the extreme events that cause large impacts on Australia. In parallel, we explore the climate projections not captured by climate models (including tipping points) and how these can be integrated into our planning.

While the work is pitched at international bodies and policymaking, details of the implications of the findings at the local scale will be shared with stakeholders. In collaboration with the Australian Climate Service, we are engaging with Commonwealth Treasury on CS5.3 Uncharted Climate Futures. The work delivers on the outcome to world leading and credible in the climate science field.

It also builds the next generation of scientists as it is home to most of our postdocs and will focus on their development. This is the largest section of our research portfolio, driven primarily by the need to contribute to the CMIP7 effort which is also supported by CSIRO and other partners. Without this contribution, the CMIP7 submission could not occur.

Science of Climate Hazards and Risk: to advance understanding of Australia's climate variability, extremes and associated drivers, including the fundamental drivers of climate risk in the Australian region (research priority two).

- CS5.5 Marine Heatwaves
- CS5.6 Extreme rainfall in Compound Events
- CS5.7 High-resolution Rainfall Extremes

Driven by the concerns of our stakeholders, we focus on the issues of marine heatwaves and destructive rainfall events. We explore how they are changing and how they will continue to change in the future. Closely co-designed with stakeholders to prioritise the aspects of these climate risks that most affect them. Lessons are delivered to end users through the co-design and workshop process but also through the CS4.3 Adapt Land and Sea portal.

The scientific progress has been designed to map to development needs in the Australian Climate Service. By focusing on user driven hazard research, and collaborating with the Australian Climate Service, we are aiming for seamless and coordinated risk information for Australia.

Capacity Building and Climate Literacy: to develop applied decision-making tools and information to inform policy and programs to prepare Australia to manage emerging risks and opportunities (research priority three).

- CS5.8 Building for the Future
- CS5.9 Communicating Coastal Floods
- CS5.10 Indigenous-led Literature and Products to Inform National and International Processes on Climate Action.

We focus our knowledge brokering skills to build capacity and climate literacy in our community. We broker conversations within the development of the National Construction Code, and we ensure that the latest understanding of coastal inundation is delivered to decision makers in ways it can be used. Strong co-design principles here ensure effective information for climate risk management.

Additionally, here we work with Indigenous communities for two-way knowledge sharing to provide IPCC relevant literature to represent our First Nations People. While this project is focused on writing papers for the international platform via the IPCC, it does this by drawing on the researchers in this and previous research plans, and the strong trusted relationships they have been building on Country. Cited literature in the next IPCC assessment will enhance the voice of Indigenous communities.

Adaptation: cross-Hub coordination for the Climate Adaptation Initiative to support climate information to program hubs to drive integrated adaptation research across the program to support evidence-based decision-making and improve Australia's climate resilience (research priority four).

- CS4.3 Adapt Land and Sea
- CS4.1 Adaptation planning approach for protected places
- CS2.1 Enabling best practice adaptation (extension).

Our adaptation projects continue from previous years including amendments to grow CS2.1. These projects represent both Initiative and cross-Hub projects. Adapt Land and Sea (CS4.3) provides the portal to adaptation information for a range of stakeholders from research developed across the NESP program. Project CS4.1 has complementary projects in the Marine and Coastal, and Resilient Landscapes Hubs.

Together, the projects to achieve the capacity and climate literacy and adaptation outcomes deliver to the goals of the Climate Adaptation Initiative, integrating the research of this Hub and the others to decision ready information for stakeholders, delivering insights on coastal inundation, and learning and sharing with Indigenous communities on cultural knowledge for climate change and adaptation. Importantly they also provide a framework for training physical climate scientists on the value and techniques of co-design and user-pull research.

Outcomes not related directly to research projects are also envisaged by the Hub.

The Hub continues to support the **National First Peoples Platform on Climate Change**, facilitated by the Hub's Indigenous Facilitator. The Steering Committee of the Platform is an apolitical advisory body, comprised of Traditional Owners who have been endorsed to participate on the committee. The purpose of the committee is to work with the NESP Climate Systems Hub to provide advice and guidance on developing the research agenda, develop culturally appropriate projects established under the principles of Free, Prior and Informed Consent and Indigenous Cultural and Intellectual Property (ICIP) - this is Intellectual Property pertaining to First Peoples ownership on climate change. This information will assist First Peoples in caring for Country in a changing climate.

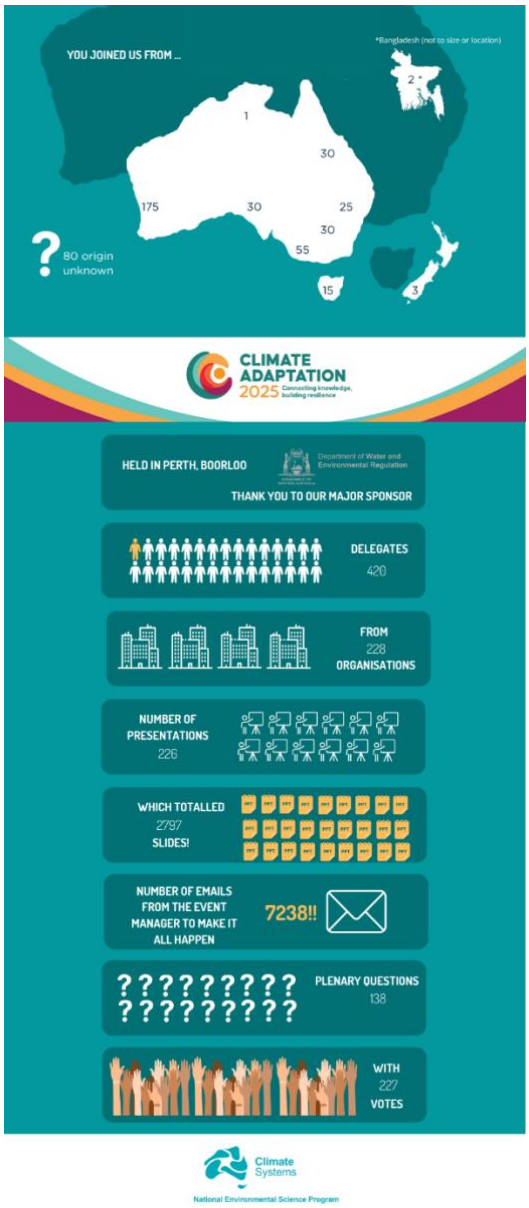
Membership of the Platform was renewed in 2025, and the new group had their first meeting in Perth in July 2025.

We continue to focus on development of early career researchers through our **Climate College**. This has to date involved mentoring, webinars, networking events, and site visits. The college provides a forum for participants to develop interdisciplinary skills needed to work in climate science and adaptation.

A unique offering of the Climate Systems Hub has been to collaborate more closely with state and territory initiatives via the partnership with the Cross Jurisdictional Community of Practice for Climate Science (CJ CoP CS) to embed Knowledge Brokers in state and territory partner organisations. This has enhanced our ability to deliver Hub outputs directly to state and territory and local governments. It also allows for greater collaboration of climate science efforts between state and federal initiatives.

In response to the rapid escalation of demand for climate information, the Climate Systems Hub contributes to the **National Partnership for Climate Projections** and together, have delivered the guiding principles for climate information portals. This ongoing support contributes to our end outcome goal of seamless and coordinated climate adaptation and risk management across Australia.

Hosted by the NESP Climate Systems Hub in Perth from 23–25 July, the Climate Adaptation 2025 (CA25) conference brought together over 420 delegates from across Australia and the region. With the theme *Connecting Knowledge, Building Resilience,* the event marked a significant moment in Australia's adaptation journey, described by many as 'the new NCCARF conference', with a twist on the AdaptFest film festival:



In June 2025, the Climate Systems Hub was the lead sponsor for the annual Australian Meteorological and Oceanographic Society (AMOS) conference in Cairns. The Hub ran multiple sessions, including a panel discussion on the value of knowledge brokering, and Indigenous engagement session discussion understandings developed in the Hub, and a session on climate risk in Australia.

Future looking and collaboration - Since the Hub started, there has been growing demand for climate research and climate information. There has also been changes in the climate science research and climate services environment. This includes consumer pull such as the regulatory roll out of an ISSB-aligned mandatory climate reporting regime in Australia for corporate entities beginning 1 January 2025.

It also includes changes to service provision, including:

- the Climate Services for Agriculture program
- state and territory-based programs
- importantly the establishment of the Australian Climate Service (ACS)
- A National Climate Risk Assessment has been completed and is due to launch in late 2025 along with a National Adaptation Plan.

The Climate System Hub has looked to be agile and collaborative to the growing and changing demand for climate information. The Hub feels it has an important goal as a mature leader in this climate ecosystem to support coordinated climate adaptation and risk management that cannot be achieved if each research program acts alone. We work to collaborate with other federal and state climate programs:

- our state and territory embedded Knowledge Brokers play a critical role in coordinating this effort
- Project CS2.1 delivered into the National Climate Risk Assessment providing an important insight into adaptation knowledge and practice in Australia
- Project CS2.10 is delivered sea-level rise data into the update of CoastAdapt
- CS2.5 contributed a review to support the update of the Australian Rainfall and Runoff Guidelines.

During the development of RP2025, the Hub received project proposals beyond what it could fund. One of those proposals was an extension to CS2.1, it was focused on building knowledge on monitoring and evaluation for adaptation practice and planning. This is a clear knowledge gap for state, territory and federal governments and received positive support. The Hub always intended to consider this extension if RP2026 funding allowed. Following the successful launch of the Australian Adaptation Database at the National Adaptation Conference in Perth, it is timely to keep building the momentum for this successful project.

Collaboration and partnerships

NESP encourages a collaborative, multi-disciplinary approach to environmental and climate research. Key to the success of the hub will be the capacity to foster partnerships across Hubs and with a wide range of decision-makers across the Australian community, including Indigenous communities, to achieve positive environmental, social and economic outcomes.

The Climate Systems Hub comprises eight partners – two of Australia's foremost climate research organisations, CSIRO and the Bureau of Meteorology, five of Australia's leading research universities, and (unique to this Hub) a collaborative state and territory community of practice – the Cross Jurisdictional Community of Practice for Climate Science (CJ COP CS) (Table 1).

Table 1: Climate Systems Hub partner contributions and capabilities.

Hub partner	Role, expertise and alignment
CSIRO	"We solve the greatest challenges through innovative science and technology. We are Australia's innovation catalyst, collaborating to boost Australia's innovation performance." Capabilities in CS Hub: Global climate model ACCESS, greenhouse gas budgets, sea level rise and extremes, biodiversity, adaptation and Indigenous partnerships.
Bureau of Meteorology	"The Bureau of Meteorology's mission is to provide trusted, reliable and responsive weather, water, climate and ocean services for Australia – all day, every day. Research in the Bureau is advancing the science behind the Bureau's environmental forecasts, warnings and services, and our Indigenous engagement team are actively building the inclusion of traditional knowledge in all that we do." Capabilities in CS Hub: fundamental climate research, projections information, climate modelling expertise.
Australian National University	"The ANU is Australia's most research-intensive university, and in the 2021 QS University Rankings was ranked 1st in Australia and 21st in the world for Earth and Marine Sciences. ANU was also rated 'well above world standard' for Earth Sciences and for Environmental Sciences in the 2018 Excellence in Research for Australia exercise." Capabilities in CS Hub: climate change processes, and land-based carbon sequestration.
Monash University	"Monash University has one of the strongest research and teaching programs in the country, which is globally competitive. The University boasts a world-leading capability in climate science research, which remains a strategic priority under our Focus Ares of Sustainability in the 2020 Research Agenda. Monash was rated as the top Australian universities in the 2018, ERA Engagement and Impact Assessment. Translating our work to the community is a critical mission at the University." Capabilities in CS Hub: climate extremes, adaptation.
University of Melbourne	"The University of Melbourne has collaborated with the partners in this proposed hub over many years to produce advances in climate science and deliver them to stakeholders. This has occurred through major programs such as the Australian Research Council (ARC) Centre of Excellence for Climate Extremes (CLEX) and the earlier ARC Centre of Excellence for Climate System Science." Capabilities in CS Hub: understanding climate change and variability, climate projections and adaptation.
University of New South Wales	"Established in 1949, UNSW Sydney is one of Australia's leading research and teaching universities, renowned for the quality of its graduates and its commitment to new and creative approaches to education and research. UNSW Sydney is one of the founding members of the Group of Eight, a coalition of Australian research-intensive

	universities, and of Universitas 21, a global network of research universities. In the 2020 QS World University Rankings, UNSW Sydney was ranked as 44th globally." Capabilities in CS Hub: climate projections and extremes, predictive modelling, machine learning and data science.
University of Tasmania	"UTAS has a mission to be a place-based, globally connected university, with a clear ambition to develop and provide sustainable solutions across its diverse portfolios. While UTAS has diverse and multi-faceted research strengths, the University is also world leading in several areas, including marine and climate, with the Institute for Marine and Antarctic Studies being a Flagship of the University." Capabilities in CS Hub: ocean research, biodiversity, land management and adaptation.
The Cross Jurisdictional Community of Practice for Climate Science (CJ CoP CS)	"The Cross Jurisdictional Community of Practice for Climate Science (CJ CoP CS) was established in March 2019 to encourage and enhance climate science for stakeholder needs and policy and decision-makers. The CJ CoP CS will support the Climate Systems Hub through an interjurisdictional knowledge brokering team working directly with technical end-users, policy and decision-makers to ensure the development of fit-for-purpose climate science information and a consistent/comparable approach to application and communication of information. Knowledge brokering enables connection to a broad network of end-users across the nation to translate research into informed action. Supported by the NSW Department of Climate Change, Environment, Energy & Water, the CJ CoP CS represents all the state and territory governments, as well as the Australian Government." Capabilities in CS Hub: knowledge brokering, communication, community of practice.

Inter-Hub relationships

Through the Climate Adaptation Initiative Lead and Knowledge Brokers, the Hub has built several relationships critical to sustaining our role in the climate science and adaptation research ecosystems. This are summarised below:

Relationship with	Nature of the relationship	Avenue of engagement	End outcome delivering to
Key stakeholders			
Australian Climate Service (ACS)	Delivery of NESP research to inform ACS Coordinate activities where possible Parallel projects in Uncharted Climate Futures delivering to Treasury and others	Portal meetings Hub Steering Committee Key contacts	Best practice climate adaptation and risk management across Australia is informed by seamless and coordinated climate information and services
Climate Change Policy and Risk Division DCCEEW (incl. National Adaptation Policy Office and Climate Active Risk and Science)	NESP provides research and advice to support activities	Hub Steering Committee Monthly touchpoint meetings Delivery to NCRA Training Review of research plans	Best practice climate adaptation and risk management across Australia is informed by seamless and coordinated climate information and services Australian climate and adaptation science continues to be

			considered world leading and credible
Nature Positive Division, Biodiversity Division and Director of National Parks Division, DCCEEW	NESP provides research and advice to support activities	Project partnerships and steering committees	Best practice climate adaptation and risk management across Australia is informed by seamless and coordinated climate information and services
State and territory governments	NESP provides research and advice to support activities NESP receives advice and support Co-design and co-delivery	Hub partner National	Best practice climate adaptation and risk management across Australia is informed by seamless and coordinated climate information and services
Research programs			
21st Century Weather	Coordinate activities where possible	Regular catch-up meetings	Australian climate and adaptation science continues to be considered world leading and credible
ACCESS-NRI	Critical partner to deliver CMIP7	Joint meetings, ACCESS-NRI advisory board, shared Knowledge Brokering and Comms.	World leading Earth System model for Australian researchers that is also submitted to CMIP7.
Other Hubs			
Initiative leads	Identify opportunities to deliver into each of the 4 NESP Initiatives	Monthly touchpoint meetings	Australian climate and adaptation science continues to be considered world leading and credible
All Hubs	Co-develop an on-line platform to support adaptation for biodiversity outcomes	Project CS4.3 and RL	Best practice climate adaptation and risk management across Australia is informed by seamless and coordinated climate information and services
Threatened and migratory species and threatened ecological communities Initiative	Scope opportunities to support DCCEEW decision-making under the Nature Positive Plan	Series of collaborative workshops	Best practice climate adaptation and risk management across Australia is informed by seamless and coordinated climate information and services
Resilient Landscapes Hub	Support adaptation planning and uptake in regional locations	Project contributions: Climate-resilient landscapes: an adaptation case study in NSW's Northern Rivers region; Addressing Kakadu's strategic research needs	Best practice climate adaptation and risk management across Australia is informed by seamless and coordinated climate information and services

Marine and Coastal Hub	Support adaptation planning and uptake in regional locations	Project contributions: Addressing Kakadu's strategic research needs	Best practice climate adaptation and risk management across Australia is informed by seamless and coordinated climate information and services

Table 2: Climate Systems Hub relationships delivery toward outcomes.

Indigenous partnerships

Our engagements encompass principles of Free, Prior and Informed Consent (FPIC). We value engagement that is respectful to cultural protocols of the community and their Country. The National First Peoples Platform on Climate Change is supported by our Indigenous Facilitator and guides implementation of principles of Indigenous-led and co-designed protocols, in accordance with the Hub's Indigenous partnerships strategy. The establishment of a National First Peoples Platform on Climate Change is a significant extension to the Indigenous partnerships seeded in the former Hub.

They provide high-level guidance and advice to the Climate Systems Hub on opportunities for collaboration and co-design protocols as required. They help ensure our research accords to co-design respecting cultural protocols and safety. There are many peoples and many cultures. We respect the provision and ownership of traditional knowledge. Ensuring cultural safety for all, hub partners will undertake cross-cultural awareness and training at both a broad and specific level, as dictated by project needs.

Indigenous Cultural Intellectual Property (ICIP) is identified as early as possible in the Hub's work and where appropriate, in individual projects. ICIP is managed in accordance with the hub's Indigenous partnership and Data management strategies.

Table of Indigenous stakeholders

The Climate Systems Hub Indigenous partnerships strategy may from time to time consult with the following list of stakeholders relevant to cultural authority, protocols and processes, policy, and general matters:

Hub	Primary	Secondary
Climate science partners	National First Peoples Platform on Climate Change	Peak Indigenous bodies
		General public
NESP Indigenous Facilitation Network	Ipima Ikaya Aboriginal Corporation, Registered Native Title Body Corporate	Environment non-government organisations
	Indigenous Land and Sea Corporation	
	Great Barrier Reef Foundation – Traditional Owner Partnership	
	Yorta Yorta Nation Aboriginal Corporation	
	Indigenous Desert Alliance	
	Koinmerburra Aboriginal Corporation	
	Torres Strait Island Regional Authority	
	Gur A Baradharaw Kod (GBK) Torres Strait Sea and Land Council, Torres Strait Islander Corporation	
	Southeast Tasmanian Aboriginal Corporation	
	Butchalla Aboriginal Corporation	
	Butchulla Native Title Aboriginal Corporation	
	Malgana Aboriginal Corporation	
	Tiwi Resources	
	Central Land Council	
	Traditional Owner groups corporations	
	Registered Native Title Bodies Corporate	
	Prescribed Body Corporate	
	Aboriginal Land Councils	
	Indigenous corporations	
	Departmental policymakers	
	DCCEEW Indigenous Advisory Committee	
	Identified policymakers in other federal and state government departments.	

Table 3: Climate Systems Hub Indigenous partnerships stakeholders.

Knowledge brokering, communication and data management

The Department expects that each Hub will engage and communicate research outcomes with research-users and the wider public to facilitate uptake and adoption. As part of this, the program is committed to promoting open access to public sector and publicly funded information, including optimising the use and reuse of data. The Department expects that each Hub will implement its data management plan to provide timely, open access to the data products and research outputs.

The Climate Systems Hub remains committed to enabling knowledge exchange between our science and Australia's policy and practice environment throughout the life of the Hub (see table below). This effort is led by our national knowledge brokering team to:

- ensure meaningful, continued, and embedded co-design between researchers, practitioners, data-users, and decision-makers
- establish collaborative partnerships
- ensure that hub-led science directly informs decisions, policies, and adaptation responses.

We can actively shape the complex science-policy-practice outcomes we seek to achieve. The Hub has partnered with all of Australia's states and territories through the Cross Jurisdictional Community of Practice for Climate Science (CJ CoP CS) and knowledge brokers are engaged on the projects to foster connection across the science-policy-practice landscape.

Continuing this partnership through the CJ CoP CS for the next phase of the Hub will ensure the knowledge brokering team can keep strengthening the relationships between scientists and decision-makers.

Stage	Intent
Explore	Map the broad picture of stakeholder and research landscape.
Analyse	Develop a strategic plan for the hub including key focus areas.
Co-plan	Deeper engagement, scoping, identify topics and projects within themes.
Co-design	Engage policymakers, other NESP hubs, end-users, and next users to design and refine projects for future research plans.
Co-develop and co-produce projects	Project teams establish, plan and conduct projects in a way that considers stakeholder needs, input and up-take

Table 4: The Climate Systems Hub's five-stage approach to research co-design throughout life of program.

The Knowledge Brokers continue to engage with stakeholders to understand their information needs, build partnerships to co-design and co-deliver the projects in our research portfolio and guide the development of effective pathways to impact. With the communication team, they have helped inform accessible and useable outputs for each project.

The Knowledge Brokers supports projects to engage with relevant stakeholders, to co-develop and test research approaches and outcomes, and to co-deliver findings in a way that promotes uptake and best-practice science-informed decision making.

In 2024 and 2025, the Knowledge Brokers and communication team delivered monthly impact campaigns to engage our audiences and promote uptake of results. This has included a dedicated focus in our monthly external newsletter and delivery of an aligned webinar and factsheet. We will continue this approach under RP2026.

Data Management

The NESP data and information guidelines and the Climate Systems Hub Data Management Strategy detail the fundamental approach to data management and the many aspects projects need to consider, including incorporating Indigenous Cultural and Intellectual Property (ICIP) protocols.

We aim to have all outputs meet the FAIR data principles – Findable, Accessible, Interoperable, and Reusable – in conjunction with the CARE principles for any ICIP – Collective benefit, Authority to control, Responsibility, and Ethics. Together, these aim to ensure all data are easily shared and reused and also used ethically. All projects will adhere to principles of ICIP and acknowledge data sovereignty elements in all project outputs for any ICIP.

While it is acknowledged that projects will not know all the details at the outset, how and where project outputs will be made freely and openly available will be considered from the outset. Different types of data and information will require different approaches, and the principles on how different data types will be managed are outlined in the Hub's data management strategy.

Funding

The table below summarises the NESP funding available on a calendar year basis Climate Systems Hub to the cessation of the agreement, and total proposed expenditure of NESP funds. A more detailed budget can be found in Attachment C (Activity budget summary tables).

	2021 Actual $ (GST excl.)	**2022 Actual** $ (GST excl.)	**2023 Actual** $ (GST excl.)	**2024 Actual** $ (GST excl.)	**2025 Budget** $ (GST excl.)	**2026 Budget** $ (GST excl.)	**2027 Budget** $ (GST excl.)	**Total** $ (GST excl.)
Balance carried forward		1,176,395	6,045,984	6,136,800	1,219,315	2,810,179	603,833	
Income								
NESP funding[1]	3,350,000	9,600,000	6,400,000	3,200,000	9,600,000	5,700,000	700,000	38,550,000
Interest[2]		53,566	215,396	118,093				387,055
Total NESP funding[3]	**3,350,000**	**10,829,961**	**12,661,380**	**9,454,893**	**10,819,315**	**8,510,179**	**1,303,833**	**N/A**
Total NESP expenditure[4]	2,173,605	4,783,977	6,524,580	8,235,578	8,009,135	7,906,346	1,303,833	38,937,055
Balance[5]	**1,176,395**	**6,045,984**	**6,136,800**	**1,219,315**	**2,810,179**	**603,833**	**0**	**N/A**

1. As per funding agreement milestone payment schedule for 2024–2027.
2. Interest earned on NESP funds held. Total expenditure from income earned from use of NESP funds is allocated to expenditure for research facilitation, activities that are fundamental to the Hub's research delivery but supported at Hub level rather than project level.
3. The sum of the balance carried forward, NESP funding and interest earned on NESP funds.
4. Expenditure figures to be drawn from the Activity budget summary tables (Attachment C).
5. Total NESP funding minus total expenditure.

For any given calendar year, the Hub funding for applied science, decision tools and practical management options must total at least 70% of the NESP funds. The balance of the NESP funds can be allocated between knowledge capture (10–20%), communication (5–10%), and administration (5–10%).

As noted before, in RP2026, Hubs will not be required to set aside funds in 2026 and 2027 for EP projects **EXCEPT** to cover projected spends on EP projects already approved.

Below is the Climate Systems Hub current allocation of funds to these categories.

Item	**Required percentage range**	**Hub percentage**
Applied science, decision tools and practical management options	≥70%	70%
Knowledge capture	10–20%	15%
Communication	5–10%	5%
Administration	5–10%	10%

Under the terms of the funding agreement, the funds paid by the department under NESP must be matched by recipient and other contributions, to a minimum total of 100% contribution **for the life of the program.**

Attachment C presents the activity budget tables for the hub for calendar year 2021 onwards. Budget estimates are provided for current and future years. The tables include recipient and other contributions.

Attachments

The following attachments form part of the Climate Systems 2026 research plan.

- Attachment A - Hub research project list
- Attachment B - Hub project plans, if applicable
- Attachment C - Hub activity budget
- Attachment D - Hub risk assessment and treatment plan