

2. BACKGROUND TO THE NESP AND INDIGENOUS ENGAGEMENT

2.1 Introduction

This Chapter examines the history of the current NESP and the iterative requirements to lift the level of Indigenous engagement in the Program. The assessment was carried out by reviewing the published program information and official records held by the Department and other stakeholders, as well as interviews with Departmental officials and the knowledge brokers in each of the NESP Hubs.

2.2 The National Environmental Science Program (NESP)

The National Environmental Science Program (NESP) is the Australian Government's long-term commitment to support environmental and climate science research in Australia. The Program funded for 6 years from 2015 to 2021, builds on its predecessors – the National Environmental Research Program (NERP) and the Australian Climate Change Science Program (ACCSP) – in securing for decision makers the best available information to support understanding, managing and conserving Australia's environment.

The key objective of the NESP is to improve the understanding of Australia's environment through collaborative research that delivers accessible results and informs decision making. The NESP seeks to achieve its objective by supporting research that:

- Is practical and applied and informs on-ground action;
- Addresses the needs of the Australian Government and other stakeholders by supporting and informing evidence-based policy and improving management of the Australian environment;
- As innovative and internationally recognised;
- Enhances Australia's environmental research capacity;
- Is collaborative and builds critical mass by drawing on multiple disciplines, research institutions and organisations to address challenging research questions;
- Produces meaningful results accessible to government, industry and the community;
- Includes synthesis and analysis of existing knowledge; and
- Builds relationships between scientists and policy-makers to encourage collaborative problem solving on environmental issues.

The NESP therefore has a very strong focus on the applied environmental and climate science needs of end-users to inform on-ground action and yield measurable improvements to the environment. The end-users include a broad range of stakeholders, including the Australian Government, state and local governments, industry, business and community groups, the Indigenous peoples of Australia and landholders, whose decisions impact on the environment.

The NESP is delivered through multi-disciplinary research Hubs or consortia, hosted by Australian research institutions. NESP funding of \$145 million over the six years from 2015 to 2021 supports six themed research hubs, along with projects to address emerging environmental and climate science research needs. The six Hubs are as follows:

- The **Clean Air and Urban Landscapes (CAUL)** Hub's research is taking a comprehensive view of the sustainability and liveability of urban environments (\$8.88M).

- The **Earth Systems and Climate Change (ESCC)** Hub's research is ensuring Australia's policies and management decisions are informed by the latest earth systems and climate change science, now and into the future (\$23.9M).
- The **Marine Biodiversity (MB)** Hub's research is providing nationally consistent scientific information to support evidence-based decision making about marine species, marine protected areas, and pressures on the marine environment (\$24M).
- The **Northern Australia Environmental Resources (NAER)** Hub's research is delivering new knowledge, practical tools and partnerships to support the sustainable development of the region's natural and cultural environments (\$23.88M).
- The **Threatened Species Recovery (TSR)** Hub's research is informing on-ground responses to reduce threats and promote recovery of threatened species; and build a better understanding of their status, threats and management options (\$29.98 million, plus up to \$2 million additional funding in 2020 for bushfire recovery science).
- The **Tropical Water Quality (TWQ)** Hub's research is providing innovative research for practical solutions to maintain and improve tropical water quality from catchment to coast (\$31.98M).

It is necessary for the purposes of understanding the analysis in this review, to appreciate that three of the Hubs are constrained by the geographic scope of their respective briefs.

- The NAER Hub is constrained to operate only in northern Australia, the area to the north of the Tropic of Capricorn.
- The TWQ Hub is constrained to operate only in the Great Barrier Reef and other tropical waters in northern Australia.
- The CAUL hub describes its mission as taking a holistic view on the sustainability and liveability of urban environments and helping to deliver better cities. The bulk of CAUL's work has therefore been in our major cities and some regional centres.

The research undertaken by the six thematic Hubs under the NESP is intended to be influential in informing those who make decisions that may impact on the environment. The NESP therefore has a substantial communications and knowledge brokering dimension (CharterPoint, 2018:2)

The Department's website⁴ states that Indigenous research partnerships are a highly valued part of the program and the NESP recognises there is much to learn from Indigenous knowledges and peoples. The Department's website also acknowledges that the advice of the Minister for the Environment's Indigenous Advisory Committee (IAC) has been provided at key points of the program.⁵

The Department's Guidelines for the NESP state that:

The Department recognises and values the experiences, perspectives and cultures of Indigenous Australians and supports Indigenous aspirations to maintain, protect and manage their culture, language, land and sea country and heritage. Indigenous considerations are an important aspect of the Department's natural resource management and heritage protection responsibilities. Aboriginal and Torres Strait Islander peoples play a key role in protecting and managing their heritage and in this regard are important partners in the Department's business.

Successful hubs will be expected to engage and consult appropriately with Aboriginal and Torres Strait Islander peoples who have an active interest in the areas where research projects occur, and develop an Indigenous Engagement Strategy to outline opportunities for Indigenous employment, skills transfer, knowledge sharing, and increase cultural awareness among all parties. (AG, 2014)

Each NESP Hub has a set of NESP research priorities, approved by the Minister, to guide disciplinary research development. A number of priorities are specific to outcomes for, or make reference to, research

⁴ <https://www.environment.gov.au/science/nesp>

⁵ See for the IAC's Meeting Bulletins - <https://www.environment.gov.au/epbc/advisory-committees/iac>

activities of importance for Indigenous people. These are applied across five Hubs⁶ and were most significant for the NAER Hub.

The design of the NESP implemented many of the recommended improvements from predecessor programs. Including but not limited to:

- Broadening the focus of research applicability from departmental and predominantly EPBC Act–focussed to all Australian environmental decision makers (to include Indigenous people and groups, amongst other target audiences); and
- Incorporating measures aimed at maximising Indigenous engagement and participation in the program’s design so that genuine opportunities for improved research and Indigenous outcomes under a national environmental program can be realised (DoE, 2015b:13).

2.3 Indigenous Engagement in the NESP

In April 2015, the Department of the Environment released the NESP *Indigenous Engagement and Participation Strategy Guidelines* (the IEPS Guidelines) (DoE, 2015a). The IEPS Guidelines were prepared in consultation with the IAC, to provide direction on the Department’s expectations and to ensure effective integration of Indigenous aspirations and outcomes in the NESP. The IEPS Guidelines state that:

All research that is undertaken, irrespective of its nature, will have some sort of impact on Indigenous Australians. Indigenous engagement and participation is identified as a cross-cutting theme for all NESP hubs in the development of research priorities.

And that:

The Indigenous engagement and participation strategies (to be developed by the NESP Hubs), are expected to be realised in hub research plans and the broader reach of research activities across the life of NESP. Outcomes for Indigenous Australians form a key assessment component of the NESP Monitoring and Evaluation Strategy.

And that:

Meaningful, thoughtful and appropriately resourced engagement with Aboriginal and Torres Strait Islander peoples will result in benefits to Indigenous Australians and to Australian society. Genuine engagement, participation and communication strategies that are relevant to the culture and views of Indigenous Australians are essential to build strong, effective and mutually respectful relationships.

The Department recognises and values the experiences, perspectives and cultures of Indigenous Australians and supports Indigenous aspirations to maintain, protect and manage their culture, language, land and sea country and heritage. Engagement is an integral component of the service design and delivery processes and good engagement, is an ongoing process based on cultural understanding, relationships of trust and continuing, honest dialogue.

Everyone has a mutual responsibility to engage, consult, achieve and communicate shared outcomes. (DoE 2015a:1)

The IEPS Guidelines identify several international and national instruments and initiatives that direct engagement with Indigenous communities, underpin Indigenous engagement and participation activity across the public and private sectors, and provide a sound basis and source of information for the NESP Hubs in the development of their Indigenous Engagement and Participation Strategies (IEPS).

The international instruments that were relevant at the time, and still are, include:

⁶The CAUL Hub’s priorities were not amended at this time. See Table 2.1 later in this Chapter.

- The UN *Convention on Biological Diversity* (The Secretariat of the Convention on Biological Diversity, 1992). In particular, Article 8(j) which commits Convention Parties to respect, preserve, maintain and promote the wider use of traditional knowledge with the approval and involvement of the users of such knowledge.
- The UN *Declaration on the Rights of Indigenous Peoples* (UN, 2007). In particular, Articles 11, 18, 19, 23, 24, 25, 26, 29, 31 and 32.

Australia is a party to both of these international instruments and they both have ongoing relevance to Indigenous engagement in the NESP. These instruments are referred to in several places in this report, but they are particularly pertinent to the discussion in Chapters 7 and 8.

The specific national instruments and initiatives that were mentioned in the Department's Guidelines and were deemed relevant at the time include:

- *Closing the Gap in Indigenous Disadvantage* (COAG, 2008; SCFFR, 2008: D-66). In 2008, the Council of Australian Governments (COAG) agreed to six targets to address disadvantage faced by Indigenous Australians in life expectancy, child mortality, education and employment.
- Indigenous Advancement Strategy. In July 2014, the Australian Government commenced the Strategy to focus on several key priority areas in Indigenous Affairs, including: Jobs, Land and Economy; Children and Schooling; Safety and Wellbeing; Culture and Capability; and Remote Australia Strategies.
- *Whole of Government Indigenous Service Delivery Arrangements* (ANAO, 2007). All Commonwealth agencies are to cater for and respond to the needs of Indigenous people, and consistent with their broader responsibilities, reform their programs and operations to maximise effort in achieving the Government priorities in Indigenous Affairs – getting children to school, adults into work, making communities safer, achieving the Closing the Gap targets and the Government's new engagement with Indigenous Australians.
- Australia's *Biodiversity Conservation Strategy 2010–2030* (NRMMC, 2010). Arising from the UN *Convention on Biological Diversity* (CBD), the Strategy commits Australia to increased Indigenous engagement in biodiversity conservation and respecting the culture, values, innovations, practices and knowledge of Indigenous peoples.
- The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Three objectives of the EPBC provide the rationale for the inclusion and involvement of Indigenous peoples in all aspects of research and works undertaken to conserve Australia's biodiversity, including the protection of the traditional use of lands and waters by Indigenous peoples, the protection of Indigenous heritage and in providing for Indigenous involvement in the management of Commonwealth reserves (DoE, 2015b:17). The EPBC Act also establishes the Indigenous Advisory Committee (IAC). The IAC advises the Minister for the Environment (the Minister) on the operation of the EPBC Act, taking into account the significance of Indigenous peoples' knowledge of the management of land and the conservation and sustainable use of biodiversity.
- The *Guidelines for Ethical Research in Australian Indigenous Studies* (GERAIS) published by the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS, 2012). The AIATSIS Guidelines guides research ethics, embodies the best standards of ethical research and human rights and provides principles on respect for the rights of Indigenous Australians, including their right to full and fair participation in any processes, projects and activities that impact on them. The Australian Government required the NESP Hubs to apply the AIATSIS Guidelines to ensure that the research undertaken by the NESP Hubs is undertaken to the highest ethical standards with respect for Indigenous priorities and values.

The aim of requiring the Hubs to develop Indigenous Engagement and Participation Strategies (IEPS) as a component of their Knowledge Brokering and Communications Strategy was to maximise the level of Indigenous engagement and participation in the Program. However, the Department's IEPS Guidelines

were not released till well after the NESP Guidelines were published in 2014. Feedback from Indigenous people as the NESP was implemented revealed that the timing of these guidance and establishment arrangements meant it was difficult to achieve meaningful Indigenous partnerships from the outset.

There are many other factors that have also influenced the direction of the NESP and Indigenous engagement. These include, but are not limited to, the National Heritage Listing of places of cultural significance to Aboriginal and Torres Strait Islander peoples, the processes of identifying new Indigenous Protected Areas and their assessment, preparation of the Reef Plan 2050 Investment Framework and Traditional Owner priorities, and National Landcare program funding for Aboriginal and Torres Strait Islander involvement in natural resource management.

How these various factors have impacted on the Hubs' Indigenous engagement strategies and activities is explored in later Chapters of this Report.

2.4 Performance Indicators for Indigenous engagement in the NESP

The NESP IEPS Guidelines included some broad performance indicators for meaningful and measurable Indigenous engagement and participation in NESP research and required the NESP Hubs to include robust and quantifiable indicators in their Indigenous engagement strategies. The IEPS Guidelines stated that appropriate performance indicators could include information on which Indigenous groups or individuals were consulted including details on the mechanism for engagement; how their views and knowledge have been incorporated in research; identifying the co-benefit of that knowledge exchange; what employment opportunities have been realised and how research outcomes will benefit Indigenous people and communities (DoE, 2015a:4).

In 2015, the Australian Government responded to the evaluation of the National Environmental Research Program (NERP) by developing the Monitoring and Evaluation Plan for the NESP (DoE, 2015b). The Monitoring and Evaluation Plan included a range of Key Performance Indicators (KPIs) for the Hubs to report against in relation to their Indigenous engagement and participation. The KPIs were developed with the assistance of Waratah Partners Aboriginal Corporation and in consultation with stakeholders. The rationale for the KPIs is set out in the Monitoring and Evaluation Plan for the NESP (DoE, 2015b), and that includes their connection to the national priorities discussed earlier, including:

- the objects of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth);
- Closing the Gap in Indigenous Disadvantage;
- the National Landcare Program;
- Indigenous Land Corporation;
- Indigenous Protected Areas (including Sea Country Indigenous Protected Areas, co-management and conservation agreements, and the National Reserve System including Marine Parks and Reserves) (DoE, 2015b:46-50).

The KPIs were initially set as follows (where relevant):

1. The extent to which Indigenous engagement has contributed positively to NESP research activity.
2. The extent to which NESP supported Indigenous communities to work on, and care for, Country.
3. The extent to which Indigenous people have derived professional development and knowledge sharing from engagement and participation in NESP.
4. The extent to which NESP has delivered outcomes that supports Indigenous land and sea managers/owners to care for Country.
5. The extent to which hub Knowledge and Communication Broker Strategies effectively address Indigenous knowledge sharing and communication needs.
6. The extent to which understanding of Australia's environment has been improved through a collaborative approach that delivers accessible results and informs decisions.

7. The extent to which hubs and Indigenous communities have developed partnerships to undertake NESP research. (DoE, 2015b:48-49)

The KPIs have been progressively updated over the life of the NESP. Since 2017, the Hubs have been required in their Annual Reports to report against the following KPIs in relation to Indigenous engagement and participation:

1. Number of Indigenous people employed in a project.
2. FTE of Indigenous people employed in a project.
3. Number of Indigenous researchers/graduates/post-graduate/PhD/Post Doc Positions in project.
4. Number of Indigenous people trained in the use of environmental management tools and techniques.
5. The number of management tools for Indigenous waters and land that benefitted from NESP research and outcomes.
6. Number and type of communication products that have been used to communicate research with Indigenous people.
7. Number of research, knowledge sharing and communication events held with Indigenous communities.
8. Number of public events, conference presentations, jointly authored/published papers with Indigenous participants/contributors.
9. ADDITIONAL REPORTING: Number of Indigenous communities and organisations engaged to develop, refine or inform NESP research.

The NESP Hubs' performance against these KPIs is discussed in Chapter 3.

2.5 Mid-Term Evaluation of the NESP

In 2017, the Department of the Environment and Energy commissioned a mid-term evaluation of NESP to assist the Department with understanding whether the NESP is achieving its objectives and to identify opportunities for implementable improvements to the NESP. At the time of the mid-term review, the NESP was approaching the halfway point in its current funding to 2021. The high-level focus of the evaluation was to determine whether the NESP was flexible enough to accommodate changing research needs as well as meeting current expectations.

The fourth term of reference for the Mid-Term Evaluation is pertinent to this review of Indigenous engagement in the NESP. The fourth term of reference required the consultant to evaluate:

The extent to which the NESP and Indigenous communities have co-benefitted from Indigenous engagement and participation, including development of successful partnerships, level of Indigenous community participation in research, and response of the NESP to relevant findings of the National Environmental Research Program (NERP) evaluation. (Charterpoint, 2018:71)

The 2014 review of the NERP indicated that future programs should be clear about expectations and scope of stakeholder engagement – especially with Indigenous communities, finding that:

NERP research has assisted the department and its portfolio agencies to better design investment programs intended to protect biodiversity—particularly in terms of developing the science underpinning the program logic for Reef Rescue. At the same time NERP researchers have introduced engagement protocols with indigenous land owners in Northern Australia and assisted program managers in the application, selection and evaluation processes used in public environmental funding programs such as Caring for Our Country and the Biodiversity Fund. However, this assistance has not been extensive and there are substantial opportunities for the Environment portfolio to improve the design and delivery of new programs so that they can utilise the best available science and the skills of NERP Hub participants in the future. Respondents to the

evaluation survey and those researchers and Hub leaders interviewed during the evaluation highlighted a wide range of areas where Commonwealth and state agencies had not sufficiently drawn on the available science and where the Environment portfolio and other agencies (Commonwealth and state) could further draw on the expertise of Hubs in the future. (Cited in Charterpoint, 2018:72)

In response to the fourth term of reference for the Mid-Term Evaluation of NESP, Charterpoint concluded that:

Each hub has a comprehensive Indigenous Engagement Strategy. There are many excellent examples of proactive engagement of Indigenous people and organisations at the hub and research project level. It was obvious to the review that meaningful engagement is the product of hub leadership, planning and persistent execution over time.

Some hubs are more advanced than others, and further work and resources are required to ensure that this expectation is delivered, to the explicit and properly measured satisfaction of the communities and individuals engaged. (Charterpoint 2018:3 and 42)

The Mid-Term Evaluation also found that the Hubs are ‘certainly engaging effectively in relation to the quantity of [Indigenous] engagement’, and that ‘the qualitative reports of activities underway demonstrate that the program is delivering positive impacts for Indigenous people’ (Charterpoint, 2018:45).

However, the Mid-Term Evaluation concluded that ‘the NESP would benefit from greater engagement with the Minister’s Indigenous Advisory Committee for additional guidance and monitoring’ (Charterpoint 2018:47).

2.6 NESP Research Priorities from 2017

In 2017, new Research Priorities for the NESP were issued following a process of consultation across the Hubs, the Department and other stakeholders. The 2017 Priorities built on previous iterations (2015 and 2016), with amendments to clarify and emphasise new initiatives and management challenges, and removal of previous priorities that are no longer a focus. Some changes were made to Indigenous specific priorities for five of the Hubs, and these and their justifications are set out in **Table 2.1**.

Where a research priority is shown in **bold**, these were regarded by the Department as a ‘focus priority’ for Research Plan version 4, based on stakeholder feedback that these are particularly important to their existing and future decision-making needs. Each NESP Hub was expected to work with stakeholders to understand the nature and extent of effort required under Research Plan Version 4 to respond to the set of priorities, taking into consideration research projects which are already underway.

Also, from 2017 the Department required the NESP Hubs to include impact stories as part of their annual reports. These are included as attachments to the 2018 and 2019 Annual Reports from the Hubs. A selection of these are included as case studies in Chapter 3 of this report.

Table 2.1: New Indigenous Research Priorities from 2017

NESP Hub	New Indigenous priority from 2017	Justification
CAUL	No change.	
ESCC	Engage with stakeholders to ensure that the information is being provided in a manner which supports decision-making and is meeting the needs of end users including business, government and Indigenous people. This includes contributing Australian and Southern Hemisphere climate information, analysis and expertise to global initiatives such as the Intergovernmental Panel on Climate Change and climate modelling projects (e.g. Coupled Model Inter-comparison Project) to ensure that Australia benefits from the international analysis efforts that shape global discussions on climate change (a2).	This amendment reflects that climate science is an international, collaborative effort and Australia plays a key role in furthering Southern Hemisphere Earth Systems and Climate Science research. The benefits of Australia engaging in international activities flow directly back to us in terms of strengthening the representation of the Southern Hemisphere in global climate models and assessments, improving the evidence base for global and local decision-making in the face of future environmental change. This amendment reflects changes proposed by the Hub. There was a high interest across the Department in this priority, including from the Land Branch of Domestic Emissions Reduction Division, Australian Antarctic Division, International Climate Change, Energy and Innovation Division. The amendment also clarifies the range of end-users to which this priority relates, to further reiterate that certain outputs need to be directed towards particular end-users outside of academic circles.
MB	Identify key opportunities to collaborate and build Indigenous participation and knowledge into the management and protection of marine species (3.5).	
NAER	Identify lessons learned from the incorporation of Top End Indigenous fire knowledge into fire management, to inform the incorporation of Indigenous knowledge in fire management and carbon abatement planning nationally (A1).	Moved from a focus priority. This priority is being addressed as part of a Research Plan (version 1) project. It is not anticipated that further work beyond ongoing sharing of Hub research outcomes is required, unless stakeholder engagement as part of Research Plan Version 4 development suggests otherwise.
	The development and direct trial of practical techniques that underpin on-ground management for the recovery of identified threatened species, including Kakadu National Park and adjacent Indigenous Protected Areas (A3).	
	Participation of Indigenous people in environmental management across northern Australia, including Indigenous Protected Areas (C2).*	Moved to a focus priority. This priority aligns closely with the whole of government Closing the Gap agenda and is strongly supported by the Minister's Indigenous Advisory Committee.
TSR	Collaborations with, and participation of, Indigenous people in threatened species research and management (D3.4).	
TWQ	Explore the opportunities for citizen science and Indigenous participation to improve tropical water quality awareness and outcomes (3.6).	

Source: DEE 2017

*This priority was identified as a 'focus priority' to reflect a greater emphasis for the Hub in the upcoming Research Plan v4.

2.7 NESP Indigenous Gathering – February 2018

In February 2018, the NESP held an Indigenous Gathering at the Australian National University, 'A shared vision for Indigenous collaboration' (Department of the Environment and Energy, 2018), which was designed to:

1. Celebrate achievements of collaborative Indigenous research under NESP.

2. Reflect on the successes and challenges of collaborative Indigenous research under NESP.
3. Develop a shared understanding about how we can work together to improve collaborative Indigenous research under NESP.
4. Look to the future for Indigenous environmental research.

The CAUL and NAER Hubs were the primary organisers of the NESP Indigenous Gathering, with the agenda being guided by an advisory group and all sessions were led by an Indigenous person. Participants included Hub researchers involved in Indigenous research, governance or engagement, Indigenous Advisory group and Steering Committee members, Hub and project leaders, Knowledge Brokers, and liaison staff, as well as members of the Minister’s Indigenous Advisory Committee.

The Gathering provided the opportunity for NESP Indigenous members to come together, share information, provide feedback on collaboration and generate ideas. The key highlights of the Gathering include:

- The positive trajectory of Indigenous participation from CERF to TRACK, NERP to NESP and since the commencement of NESP, is recognised and valued. There is still a long way to go, but progress has been made.
- Retrofitting Indigenous engagement into projects is challenging and poor practice.
- The different cultural competency of the NESP Hubs was recognised and strong cultural capability was seen as key to good research outcomes.
- The legacy of research needs to be considered beyond the life of projects in order for relationships and trust to be sustained with Indigenous peoples and communities.
- Indigenous-led research is seen as best practice and what the Hubs should be aiming for.
- Co-design or engaging with Indigenous people in the research design phase is best practice.
- Ethical practices need to be adopted when engaging with Indigenous people.
- Reciprocity must be recognised and realised – realising benefit to communities through research and closing the feedback loop to inform collaborating communities on the use of their contributions.
- The concept of an Indigenous “hub” or collaboration was discussed as a way of supporting best practice Indigenous inclusion and an effective way of realising the benefits of Indigenous inclusion in future environmental research programs (NESP 2.0). This would not be a “hub” in the same sense as the current research hubs, but a governance model that works across all Hubs to guide and support Indigenous engagement and participation.
- The legacy of research needs to be considered beyond the life of projects in order for relationships and trust to be sustained with Indigenous communities.⁷

Participants were supportive of Indigenous people forming a governance model that could work as a conduit across all hubs to guide and support Indigenous-led research in applicable projects and Indigenous engagement and participation in other projects in a future research program.

The Gathering provided for three important opportunities to progress Indigenous engagement and participation in the NESP as starting points for discussion and refinement. The opportunities identified by the Gathering include the following:

1. To promote the positive achievements of NESP in relation to Indigenous collaboration through a range of actions.
2. To support a higher level of Indigenous collaboration within NESP (and more broadly).
3. To inform the design of NESP 2 in a way that will strengthen Indigenous collaboration.

⁷The Outcomes of the Gathering were provided by the Scientific Partnerships Section of the Department of Agriculture, Water and the Environment.

The Gathering also identified a number of outputs and actions against each of these opportunities that they wanted to see achieved before the end of the current iteration of the NESP and feed into NESP2. These are shown in full in Appendix B and are revisited in Chapter 8.

2.8 Survey about the NESP – June 2019

As part of the planning for a future research program to succeed the NESP, Science Partnerships conducted an online survey in June 2019 (DoEE 2019). The survey was targeted at known opportunities for improvement and the feedback has been used to inform the design and administration of a future program. A total of 239 respondents participated in the survey, representing the environmental research community and current and potential users of NESP research. The survey covered:

- **NESP engagement** – researchers, research user and program manager interactions before and during research projects, from understanding needs, scoping and design, to research activities and delivering outcomes.
- **Big picture research** – multiple disciplines working together to inform environmental management challenges.
- **Indigenous inclusion** – NESP activities and other ideas for improving Indigenous inclusion in environmental research.

One of the key issues raised by respondents about facilitating transdisciplinary and broad scope environmental research is the need for *'explicit mechanisms to overcome cultural and institutional barriers to collaboration'*.

On Indigenous inclusion, many survey respondents expressed support for targeted activities and program administrative arrangements to strengthen collaborative research with Indigenous communities in a future program (see **Figure 2.1** below).

- There needs to be time allowed to develop meaningful relationships. This is generally not feasible or constructive on a project-by-project basis.
- Lack of budget to do preliminary engagement and budget/time/resources to build the required relationship.
- Programs to support young people to become leaders – scholarships, mentoring, work experience programs – to highlight opportunities.
- I think it would be good for NESP hubs to have an imperative to support relevant training of potential Indigenous researchers at all levels from high school to university.
- Well done to NESP – it's a great start on this road to better integration and genuine involvement of Indigenous communities in environmental research – but there's a long way to go.
- Principle of Free Prior Informed Consent is critical. Researchers [must] have the Cultural Authority to do work on country or [be there] with TO knowledge.
- We can't continue to expect First Nations people to give us permission to access their lands or cultural heritage, or to contribute to our research, [while others] control the agenda and the rights to the data.

Figure 2.1: Survey Respondents views about Indigenous inclusion in the NESP/Future Program

Source: DEE

Respondents made the following observations and suggestions for improvement:

- The NESP has included researchers with considerable experience working with Traditional Owners, others have begun to develop cultural capacity, and some projects have suffered from inadequate resourcing and planning for Indigenous inclusion.

- Building trusted relationships, with dedicated resourcing, is critical to Indigenous inclusion in environmental research.
- There is a need to build capacity for Indigenous research by investing in transfer of skills, Indigenous students and early career researchers.
- The structure of an environmental research program needs to incorporate explicit ethical and intellectual property arrangements.

2.9 Summary Details about the NESP Hubs

Table 2.2 summarises the details about each of the NESP Hubs as the basis for the Review that follows. The details include:

- The NESP Hub's core research focus;
- NESP Funding;
- Host organisation;
- Hub Leader;
- Hub Partners;
- Hub Website;
- Research priorities set by the Department's NES Program Manager; and
- Indigenous research priorities set by the Department's NES Program Manager in 2017.

Table 2.2: NESP Hub Details as at May 2020

NESP Hub	CAUL Hub	ESCC Hub	MB Hub	NAER Hub	TSR Hub	TWQ Hub
Core Focus	Research to support environmental quality in urban areas.	Research to understand and manage Australia's changing and variable climate.	Research for understanding and managing Australian oceans and temperate marine environments.	Research to support the sustainable development of Australia's northern environments	Bringing together leading ecological experts to deliver research to improve the management Australia's threatened species and ecological communities	Research to support the management of the Great Barrier Reef and other coastal tropical waters
NESP Funding	\$8.88 million	\$23.9 million	\$23.88 million	\$23.88 million	\$29.98 million, plus up to \$2 million additional funding in 2020 for bushfire recovery science	\$31.98 million
Host	University of Melbourne	CSIRO	University of Tasmania	Charles Darwin University	University of Queensland	Reef and Rainforest Research Centre Inc.
Hub Leader	Dr Kirsten Parris	Professor David Karoly	Associate Professor Alan Jordan	Professor Michael Douglas	Professor Brendan Wintle	Professor Damien Burrows
Hub Partners	RMIT University, University of Wollongong and University of Western Australia	Bureau of Meteorology, University of New South Wales, Australian National University, Monash University, University of Melbourne and University of Tasmania	Geoscience Australia, NSW Department of Primary Industries, NSW Office of Environment and Heritage, Charles Darwin University, Australian Institute of Marine Science, CSIRO, Museum Victoria, University of Western Australia	Northern Territory Department of Environment and Natural Resources, North Australian Indigenous Land and Sea Management Alliance Ltd, Griffith University, CSIRO, Queensland Department of Environment and Science, James Cook University, University of Western Australia, Queensland Department of Agriculture and Fisheries, and the Western Australian	The Australian National University, University of Sydney, University of New South Wales, Charles Darwin University, University of Tasmania, RMIT University, Monash University, University of Melbourne, University of Western Australia, and Australian Wildlife Conservancy.	Australian Institute of Marine Science, Central Queensland University, CSIRO, Griffith University, James Cook University, University of Queensland.

NESP Hub	CAUL Hub	ESCC Hub	MB Hub	NAER Hub	TSR Hub	TWQ Hub
				Department of Biodiversity, Conservation and Attractions		
Hub website	www.nespurban.edu.au	http://nesclimate.com.au/	http://www.nespmarine.edu.au/	www.nespnorthern.edu.au	www.nespthreatenedspecies.edu.au/	www.nesptropical.edu.au
Research Priorities set by Program Manager	Group A: Increasing our understanding of the environmental and social impacts of air pollution in urban and peri-urban areas to inform management actions. Group B: Quantifying the benefits of urban greening for humans and other species in cities to inform Australian Government policy and programs, and management actions by all levels of government, the community and industry.	a) Building the utility of Earth systems and climate change information. b) Improving our understanding of how the climate system may change in the future. c) Improving our observations and understanding of past and current climate.	Theme A: Threatened and migratory species. Theme B: Supporting management decision making. Theme C: Understanding pressures on the marine environment. Theme D: Biophysical, economic and social assessments. Theme E: Science for a sustainable Australia.	A. Effective management of northern Australia's environmental resources. B. Understanding the pressures and impacts on environmental resources in northern Australia. C. Understanding and measuring the condition and trends of environmental, social and economic resources in northern Australia.	D1. Effective on-ground responses to reduce threats and promote recovery of threatened species. D2. Better understanding, measuring and reporting on the condition and trend of threatened species. D3. Using social and economic opportunities for threatened species recovery.	Theme 1: Improved understanding of the impacts, including cumulative impacts, and pressures on priority freshwater, coastal and marine ecosystems and species. Theme 2: Maximise the resilience of vulnerable species to the impacts of climate change and climate variability by reducing other pressures, including poor water quality. Theme 3: Natural resource management improvements based on sound understanding of the status and long-term trends of priority species and systems.

NESP Hub	CAUL Hub	ESCC Hub	MB Hub	NAER Hub	TSR Hub	TWQ Hub
Indigenous Research Priorities set by Program Manager in 2017	Nil	Engage with stakeholders to ensure that the information is being provided in a manner which supports decision-making and is meeting the needs of end users including business, government and Indigenous people. This includes contributing Australian and Southern Hemisphere climate information, analysis and expertise to global initiatives such as the Intergovernmental Panel on Climate Change and climate modelling projects (e.g. Coupled Model Intercomparison Project) to ensure that Australia benefits from the international analysis efforts that shape global discussions on climate change (a2).	Identify key opportunities to collaborate and build Indigenous participation and knowledge into the management and protection of marine species (3.5).	A1. Identify lessons learned from the incorporation of Top End Indigenous fire knowledge into fire management, to inform the incorporation of Indigenous knowledge in fire management and carbon abatement planning nationally. A3. The development and direct trial of practical techniques that underpin on-ground management for the recovery of identified threatened species, including Kakadu National Park and adjacent Indigenous Protected Areas. C2. Participation of Indigenous people in environmental management across northern Australia, including Indigenous Protected Areas.	Collaborations with, and participation of, Indigenous people in threatened species research and management (D3.4).	Explore the opportunities for citizen science and Indigenous participation to improve tropical water quality awareness and outcomes (3.6).

2.10 Findings and Conclusions

This Chapter explored:

- The objectives of NESP, the program's Guidelines, the establishment of the six themed Hubs and how the design of NESP was intended to implement many of the recommended improvements from predecessor programs;
- The Department's NESP *Indigenous Engagement and Participation Strategy Guidelines* (the IEPS Guidelines) and the specific national instruments and initiatives that were deemed relevant at the time;
- The Performance Indicators for Indigenous engagement in the NESP issued in 2017;
- The mid-term evaluation of the NESP undertaken by Charterpoint in 2017;
- The Indigenous-specific key performance indicators or KPIs;
- The 2017 Research Priorities for the NESP that were issued following consultation across the Hubs, the Department and other stakeholders;
- The NESP Indigenous Gathering in Canberra in February 2018; and
- The results of the online survey that was undertaken in 2019.

Through each of these actions, the Department endeavoured to provide guidance to the Hubs to ensure integration of Indigenous aspirations and outcomes were embedded in the NESP.

The most pertinent finding is that the combination of these initiatives ensured that Indigenous engagement was a cross-cutting theme in the NESP and provided the impetus for a number of innovative collaborations between Indigenous stakeholders and researchers. These initiatives also precipitated several exciting developments, including Indigenous led research, the co-design of research projects, the development of various practical tools and guide documents that will have enduring value and legacy for the next iteration of the NESP. SGSEP notes that this is a significant advance in overall Indigenous engagement when compared to its predecessor programs and provides a very solid basis on which to make further progress.

Feedback from the survey and from discussions with each of the Hubs and other stakeholders consulted as part of this review, concluded that the IEPS Guidelines should have been available well ahead of research planning and this impacted on how some of the Hubs progressed their Indigenous engagement strategies. SGSEP concludes therefore, that there is room for significant improvement in terms of providing more information and guidance to the Hubs about Indigenous Engagement from the outset of the next phase of the program.

The next Chapter discusses how the NESP Hubs have taken up the challenges and implemented the Department's objectives with respect to Indigenous engagement.