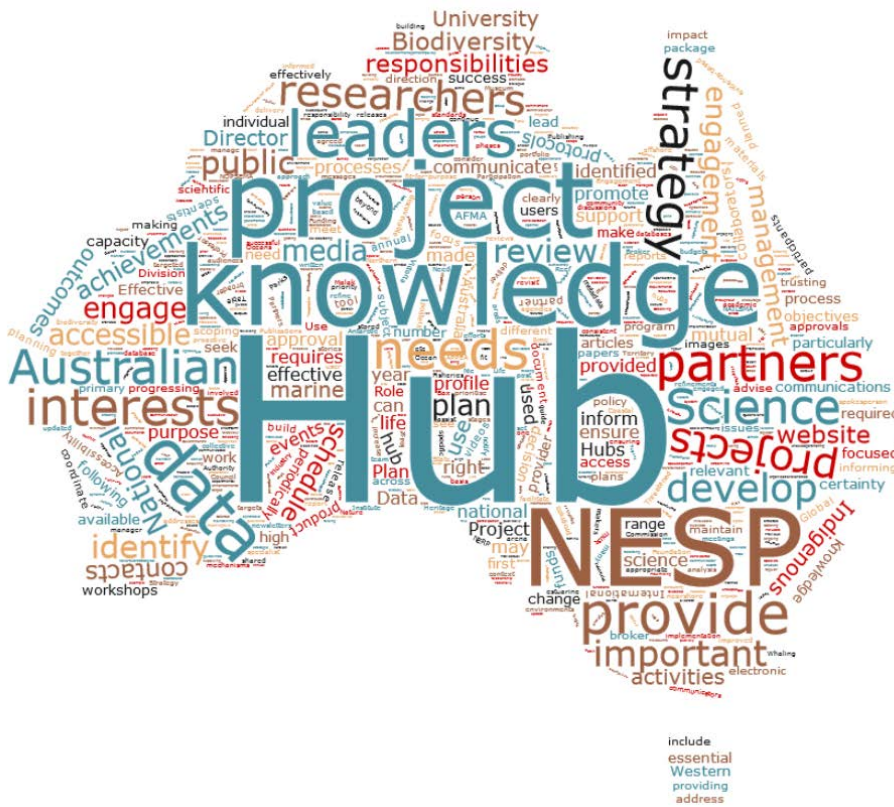




National Environmental Science Programme

Knowledge Brokering and Communication Strategy

Version 1.1



VERSION CONTROL REVISION HISTORY			
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Need for strategy

This document addresses the National Environmental Science Program (NESP) requirement to develop a knowledge brokering and communication strategy. Knowledge brokering and communication activities are recognised as essential to the success of the NESP.

The key objective of the NESP is to deliver accessible results that inform decisions leading to positive environmental change through an improved understanding of Australia's environment. The [NESP Guidelines](#) state the knowledge brokering and communication strategy should illustrate how the hub will contribute to building relationships and knowledge-sharing networks between researchers, government, industry and communities. The strategy should also detail how the hub will facilitate adoption of research outcomes by environmental decision makers across government, industry and communities. The strategy must address:

- research-user engagement and understanding their needs
- synthesis and analysis products targeted at research-user needs
- facilitating co-learning across research hubs and key research-users
- a plan to ensure the ongoing availability of research outputs beyond the life of the hub for research-users
- bringing researchers, policy makers and environmental managers together to facilitate evidence-based decision-making
- promoting the hub's research outputs and the NESP to research-users and the community.

Hubs are required to set aside an appropriate portion of their budgets to support the development and implementation of their knowledge brokering and communication strategy. The strategy may have sub-strategies or plans for focus on different activities. Funding must be allocated to the following activities:

- the appointment of at least one specialist communication officer and at least one specialist knowledge broker
- the production of research user friendly products that make research and data easily accessible and adoptable
- events that bring environmental research-users, particularly the Government, and researchers together on a regular basis (including annual research forums, seminars and research/policy workshops)
- cross-NESP meetings with hub leaders
- other activities agreed in the knowledge brokering and communication strategy.

The Department expects that all research outputs from the NESP will be made publicly and freely accessible and available on the internet and that researchers deposit research outputs in an appropriate subject and/or institutional repository. A commitment to meet these obligations is included in the Funding Agreement and the Department has established [NESP Data and Accessibility Guidelines](#)

Background

The Hub is a national partnership of 9 research providers and many more collaborators reflecting the Department's national responsibilities. Previous Marine Biodiversity Hubs have developed effective communication and engagement models and the NESP Marine Biodiversity Hub aims to use knowledge brokering to increase the number of opportunities to inform environmental decision making resulting in improved on-ground outcomes by supplying the most up to date and relevant science. The Knowledge Broker requires a good understanding of the capacity and interest of Hub scientists and stakeholders in developing and maintaining trusting relationships that provide relevant information, and a nuanced understanding of the dynamic nature of the needs of research-users.

The Marine Biodiversity Hub will deliver research that is research-user focused and addresses the needs of the Australian Government and other stakeholders in developing evidence-based policy to improve management of estuarine, nearshore and offshore marine environments. Research will support the Government's marine biodiversity priorities in "A Plan for a Cleaner Environment". State partners NSW DPI & NSW OHE will increase our capacity to provide nationally consistent scientific information in priority areas.

Knowledge brokering and communication activities will be essential to the success of the collaboration in enhancing the impact of its research. The Hub will need to build and maintain relationship with its partners and a broad range of research-users and stakeholders (Table 1) and produce research outputs and products to the right person, at the right time and in a form that is fit-for-purpose.

Effective knowledge brokering requires establishing trusting relationships between researchers and stakeholders and understanding the information needs of stakeholders and their capacity to use it. A range of strategies is used for brokering knowledge including: engaging, consulting, collaborating, informing and building capacity. Each of these serve complementary functions requiring different emphasis at different points in the science-management-policy dialogue. Effective communication is central to knowledge brokering, promoting the Hub's interests, achievements and value, and raising the profile of the Hub.

Indigenous communities and people are identified as important targets for knowledge brokering and communication, and this needs to be sufficiently informed and planned. This strategy should be read in conjunction with the Hub's Indigenous Engagement and Participation Strategy.

Implementation of this strategy will be resourced with 14% of the NESP funds provided to the Hub. A knowledge brokering and communication team will be established to lead and coordinate the implementation of this strategy, including the Hub Director, Knowledge Broker (Deputy Director), Communications manager, Communications Project Officer and a data manager. The Hub's projects leaders and researchers will also provide important roles in knowledge brokering and communication. This strategy is considered a living document and will be updated as required throughout the life of the NESP.

Table 1: The NESP Hub's list of targets for knowledge brokering and communication.

<i>Type</i>	<i>Targeted organisations/entities</i>
Research grant provider (≤50% funds)	Department of the Environment (DoE)
Research partners (≥50% funds)	Australian Institute of Marine Science Charles Darwin University CSIRO Geoscience Australia Museum Victoria NSW Government – Department of Primary Industries NSW Government – Office of Environment and Heritage University of Tasmania – Institute for Marine and Antarctic Studies University of Western Australia
Research collaborators	Clean Ocean Foundation IMOS James Cook University Malak Malak Ranger Group Murdoch University NAILSMA NOAA Northern Territory Government – Fisheries Parks Victoria Western Australian Government - Fisheries Other NESP hubs The Nature Conservancy SARDI Reef Life Survey Foundation University of Melbourne Western Australia Museum
Research-users	AFMA Coastal NRM Groups Department of the Environment – Parks Australia Department of the Environment – Wildlife, Heritage and Marine Division Department of the Environment – Science Division Department of the Environment – Threatened Species Commissioner Department of the Environment - Australian Antarctic Division Department of the Environment – Environmental Approvals and Compliance Department of Agriculture Department of Industry and Science Great Barrier Reef Marine Park Authority NOPSEMA Northern Territory Government Natural Resource Management groups NSW State Government Western Australian Government Queensland Government South Australian Government Victorian Government Tasmanian Government International Whaling Commission
Other important stakeholders	Australian Marine Safety Authority APPEA Federal Minister for the Environment FRDC Secretary- Department of the Environment NT Seafood Council
Indigenous communities	Traditional owners Coastal Indigenous communities NAILSMA Kimberly Land Council
General public	Media organisations

Purpose and objectives

The primary purpose of this strategy is to provide direction to the Hub's participants for the effective knowledge brokering and communication of NESP funded research projects. The following objectives have been determined to achieve this purpose:

1. To clearly communicate the Hub partners' research interests to the research grant provider, research-users of research and research stakeholders
2. To develop a mutual understanding with research-users and key stakeholders about the NESP research priorities and their needs from research
3. To effectively engage research-users and key stakeholders in scoping and progressing the Hub's research projects
4. To provide research-users with fit for purpose research outputs and product
5. To make the Hub's research outputs and products discoverable and accessible to research-users and the public
6. To communicate and promote the Hub's research interests and achievements
7. To provide certainty about responsibilities, processes and protocols for approval of Hub publications

A secondary purpose of this strategy is to continue to build the relationships between senior scientists and research-users that can support additional needs and advice and provide a research-user perspective beyond the strict confines of the contracted projects.

Implementing objectives

1. To clearly communicate the Hub partners research interests to the research grant provider, users of research and research stakeholders

The NESP Marine Biodiversity Hub is a national environmental research collaboration focused on conducting research to address Australian Government priorities for environmental research. Approximately 50% of the research funds are provided by the NESP grant and 50% by the Hub's research partners. Each of these partners have strategic environmental research aspirations, objectives and priorities that they will seek to further through the NESP collaboration.

Role of Hub Research Partners Committee

The *Hub Research Partners Committee* will identify and periodically review its collective research interests to ensure these are clearly communicated to the research grant provider, users of research and research stakeholders to inform the development and review of Hubs research plans.

National Marine Science Plan

Marine Hub partner research interests are also informing the development of a [National Marine Science Plan](#) due for release in August 2015. The plan is being developed by the National Marine Science Committee (NMSC) that promotes co-ordination and information sharing between Australian Government marine science agencies and the broader Australian marine science community. The Hub's partners and collaborators were important contributors to the [white papers](#) used in developing the plan, including papers on biodiversity conservation and ecosystem health, dealing with climate change and optimal resource allocation. The National Marine Science Plan will provide an important context for framing the Hub partners' collective research interests.

2. To develop a mutual understanding with research-users and key stakeholders about the NESP research priorities and their needs from research

The Department of the Environment identified NESP 2015 research priorities to be addressed by Marine Biodiversity Hub research and has indicated these priorities will be refined over the life of the program. The priorities are critical for providing focus and direction but may be interpreted differently by Hub researchers, users of research and research stakeholders. For NESP to be successful, Hub researchers will need to meaningfully engage with the Department to develop a mutual understanding of the priorities and agree on approaches to address these priorities. The Hub will also have to engage with research-users and stakeholders to cultivate a mutual understanding of the NESP research priorities, any refinements to these over the life of the program, and how they align with their interests in and needs from research.

Role of the Hub Research-user Committee

The *Research-user Committee* will provide the primary engagement mechanism for understanding and communicating research-user interests and needs. The Hub Executive and project leaders will also engage directly with research-users and stakeholders on an as needs basis through meetings and workshops to develop a mutual understanding,

particularly where the Committee members advise of the need for more focused discussions to better understand needs, opportunities and issues. In these circumstances the Hub will seek to make use of established engagement mechanisms and processes.

First year of research

The first year of the NESP program includes a number of short-term research projects focused on developing a shared understanding of how environmental research can assist research-users, particularly in terms of informing environmental decision making and getting effective on-ground outcomes in estuarine, nearshore and offshore marine environments. Outputs from these projects will inform the choice and direction of subsequent years' research. The first year will also be used to explore mechanisms for research collaboration with other NESP Research Hubs.

3. To effectively engage research-users and key stakeholders in scoping and progressing the Hub's research projects

The Hub has identified a large number of research-users and stakeholders based on the 2015 research priorities and suite of projects in Research Plan Version 1. Some of the research-users, such as the Department of the Environment, have interests across the entire research portfolio, others such as the International Whaling Commission have relatively narrow interests confined to particular projects.

Role of Hub Executive

The Hub Executive will prioritise their efforts to provide leadership, coordination and facilitation for knowledge brokering and communication with priority research-users and stakeholders. The *Hub Executive knowledge brokering and communication priorities* for 2015 are the Department of the Environment, AFMA, NOPSEMA and Indigenous communities (see Indigenous Engagement and Participation Strategy). The Hub's project leaders will be required to effectively engage all identified research-users and stakeholders in scoping and progressing approved research projects.

Role of project contacts

Building trusting and ensuring relationships between Hub researchers and individual research-users and stakeholders will be fundamental to effective research that meets the needs of research-users and stakeholders. To encourage this, the Hub will seek to identify Hub, and relevant research-user and stakeholder *project contacts* for each project. The Hub Executive will work with research users and project leaders to identify project contacts. The project leaders will be the default Hub project contact. Project leaders will identify contacts for relevant research-users and stakeholders. Project leaders will keep the Hub Executive informed about project communicators in monthly progress updates. Research-user and stakeholder contacts may change, this is not uncommon in government agencies. Project leaders will notify the Hub Executive when these changes occur.

Maintaining an engagement schedule

Effective engagement of research-users is promoted when they have certainty about how and when they will be engaged. Project leaders will notify the Hub Executive about planned engagements with research-users, particularly when planning to engage with *knowledge brokering and communication priorities* (see above) so that they are aware of any broader

Hub or research-user issues. To promote effective engagement the Hub Executive will develop and maintain a forward looking *engagement schedule for knowledge brokering and communication*.

Monitor and report on effectiveness

The effectiveness of knowledge brokering and communication can be affected by a range of issues, such as a lack of resources, competing priorities or changes in project contacts. The Hub Executive will seek to monitor the effectiveness of knowledge brokering and communication by seeking feedback periodically from project leaders and project communicators. The Hub Executive will collate the feedback from project leaders and report biannually to the *Hub's Steering Committee*.

4. To provide research-users with fit for purpose research outputs and product

The Hub's project outputs and products are identified when research project proposals are developed. When engaged in research to inform policy or on-ground outcomes it is important to recognise the value in creating opportunities to revisit project outputs to ensure they will be fit-for-purpose for research-users. It is not unusual for unexpected events to lead to a rethink about the type of outputs and products that can or should be developed and when they need to be delivered. For example, scientists may not have been successful in acquiring important data or the needs, language or priorities of research-users may have changed.

Need to revisit project outputs and products

Approved research projects typically progress through a number of phases or stages where knowledge brokering and communication are important for revisiting project outputs and products. From a researcher's perspective these phases could be refinements to project scope, post field work or post data analysis; from a research-user perspective they could be changes in government, departmental reviews and restructures, budget reviews or change management processes, etc. Revisiting projects provides the opportunity to confirm, refine extend and prioritise project outputs and products and will be a responsibility of the Research Leadership Team. The Hub's project leaders will engage with research-users at multiple stages in the life of the project to discuss the planned research outputs and products.

Maintain product delivery schedule

A key consideration for maximising impact of research outputs is providing research products in the right package to the right person at the right time. There are many ways to package research outputs and products for impact and these include; reports, summaries, syntheses, guides, frameworks, databases, metadata, maps, video, etc. The Hub's knowledge broker will work with project leaders and research-user contacts to identify, refine and package the Hub's research outputs and products. The knowledge broker will work with project leaders to coordinate develop and maintain a *product delivery schedule*. The schedule is an important document that is used to develop a shared understanding how research outputs will be packaged, who they will be delivered to and when. The schedule is also used to advise research-users of opportunities that they might like to use or influence and a key approach to individual project performance as it provides a record of the products that have been delivered to research-users.

5. To make the Hub's research outputs and products discoverable and accessible to research-users and the public

Easy access to the Hub's outputs and products is essential to our success. The NESP requires that all the Hub's research will be made available to the public and provided the Hub with the [NESP Data and Accessibility Guidelines](#). The Hub will build on past achievements and be proactive in managing its data and information. Effective data and information management requires leadership, planning and coordination. The Hub's partners, executive, project leaders, individual researchers will have responsibilities for managing data and information.

Framework to manage data and information

The Hub Executive will provide a framework for managing data and information to guide researchers in making these accessible to research-users and the public. The framework will identify two categories of data and information: written outputs and data outputs. Written outputs will be made accessible via the Hub's website (see electronic publications submission tool in Objective 7). For data outputs, project leaders will be required to publish metadata records on the AODN, or partner GeoNetworks, that meet agreed standards, including a direct link to the data. Data will be stored in secure databases and spatial data will be stored on partner Geoservers, with all efforts being made to ensure that these sites are publically accessible. A focus in the first year of the Hub will be to ensure that all project data meet the data management access and archival standards. This will be facilitated by a data management team. The Hub Executive will periodically review and update the data management framework. The framework will be consistent with the [NESP Data and Accessibility Guidelines](#) and the Hub will continue to collaborate with the [Australian Ocean Data Network](#) to guide its approach to data and information management.

Hub website

The Hub website www.nespmarine.edu.au will provide access to the Hub's written outputs and products, including research plans, governance structures and published articles, reports, newsletters, videos, images, posters and media releases. The website is based on the Drupal database so all information is searchable. Access to all of the CERF and NERP Marine Biodiversity Hub documents will also provided at the same site. The website will be NESP branded and updated and enhanced periodically.

6. To communicate and promote the Hub and its research interests and achievements

Clear, timely and targeted communications promoting the Hub's research is essential to our success. The Hub will be proactive in communicating its research interests, achievements and contributions to environmental decision and on-ground outcomes. While all Hub participants will be involved in communicating it is important to identify clear responsibilities for leadership, planning and coordination.

Lead Spokesperson – Hub Director Professor Nic Bax

The Hub will use a lead spokesperson to avoid confusion in the public arena about who is the expert and who is the authorised spokesperson for the Hub. The primary communicator

for the Hub will be the Hub Director Professor Nic Bax. Theme and project leaders also carry the responsibility to lead interviews for their respective research areas and will advise the Director of media interactions for the purposes of recording them in the activities register and advising NERP.

Communications support to coordinate media requests and provide assistance and support in media liaisons will be provided by the individual partners' communication staff.

Annual communications plan

The Hub Executive will develop an annual communication plan to identify specific communication outcomes and responsibilities, schedule events and allocate budgets. The first plan will be developed for 2016. Each year, 1-3 high profile stories will be developed for release through high profile national media outlets. The plan will be reviewed annually. The annual communications plan will identify target audiences and key messages and consider a mix of the following:

- Promoting the Hub and its research in national media (eg. television, radio and print) and participation in events by providing sponsorship, keynote speakers, presentations, workshops or attendance at high profile scientific, science communication and research-user conferences and workshops (eg. Australian Marine Science Association, GeoHab and Australian Science Communicators)
- Publishing articles and stories in research user and stakeholder publications (eg. CHIRP, AFMA and APPEA)
- Promoting research through special events (eg. National Science Week, National Threatened species Day)
- Publishing articles in high profile academic journals (eg. Science and Nature)
- Use of social media to promote research
- Use of public exhibition of the Hub's research
- Promoting the Hub's research in the international arena (e.g. CBD, UNEP, IUCN Red List, Tree of Life, Global Oceans Biodiversity Initiative, Global Oceans Observing System, Global Environmental Fund International Waters Program, Pristine Seas)
- Updating and enhancements to the Hub's website
- Use of electronic and printed publications to promote the Hub research interests and achievements (eg. research portfolio, posters, newsletters)

Supply promotional materials to partners and research-users

The Hub's partners and research-users will assist in communicating and promoting the Hub's research. The Hub Executive will develop and provide partners and research-users with communications materials including: key messages, frequently asked questions and PowerPoint slides and access to a database of the Hub's marine science images and videos.

7. To provide certainty about responsibilities, processes and protocols for approval of Hub publications

The NESP requires that all the Hub's research will be made available to the public. The majority of Hub participants will be involved in verbally communicating research and

developing publications to communicate research findings and achievements. Externally released publications include academic journal articles, reports, videos, images and media releases. The identification of communication responsibilities, processes and protocols provides certainty about the communication review and approvals process for publications.

Publications review and protocols

Hub publications, including research papers are subject to the communication review and approvals process of the National Environmental Science Program. Communication review will consider a range of factors including: the importance of scientific rigour; accuracy of the research-user context; recognition of funding sources, contributing authors and collaborators; and legal requirements relating to intellectual property and confidential information. The Department of the Environment provides NESP branding guidelines and NESP hub logos for use in publications.

Electronic publications submission tool

The Director will manage the approval process by ensuring the minimum procedures for the preparation and release of public materials are carried out. Researchers can streamline the approvals process by following the communication protocols set out below. Hub researchers will submit publications for communication approval using the electronic publication submission tool on the Hub’s website.

Publications do not include PowerPoint presentations. PowerPoint presentations are classified as invaluable communication tools for reaching specific audiences and generating discussions with stakeholders, but are not subject to review and prior approval. However, the Hub Executive is available for review and feedback on request.

Hub Publication Protocols				
1. All project communication materials need to be approved by the Hub Director.				
2. Communication materials includes information sheets, meeting handouts, conference posters, scientific papers, journal articles, newsletter articles, scientific reports, stakeholder specific reports, press releases, editorials, feature articles and website information.				
3. Scientific papers must be reviewed and approved in accordance with the authoring researchers’ respective organisations, and subsequently by the Hub Director as well as providing advanced notice to the NESP Team of potential publication. A reprint of the final publication must be added to secure documents area of the website with relevant metadata. Depending on the IP agreement of each journal, either the research paper, abstract or hyperlink will be made available publically on the website.				
4. All	PowerPoint	presentations	containing	Hub-generated
information/products	will	include	appropriate	Hub logos,

Hub Publication Protocols

acknowledgements and disclaimers as provided in the PowerPoint template. PowerPoint presentations will be protected by converting files to pdf for circulating to external stakeholders/audiences. If the presentation contains sensitive or preliminary information, then the slides will be draft stamped with appropriate disclaimers for use.

5. All published materials will be available on the Hub website within one week of release.
6. All media interviews will be coordinated through the Director and prior approval granted for planned interviews wherever practical and possible. Where time does not allow for prior approval, interviewees shall advise the Director as soon as practicable for reporting and advising the NESP administration section in DoE.
7. Notice shall be provided to the NESP administration section in DoE of any known interviews and a log of media enquiries, requests, interviews and appearances will be maintained in the activities register and reported in the six-monthly contractual reports to the Hub executive.

Review and performance indicators

This strategy is considered a living document and will be updated as required throughout the life of the NESP. Biennial NESP reviews will provide an important trigger for periodic review of strategy and monitoring performance indicators will provide important information for monitoring the effectiveness of implementation. The Knowledge Broker will be responsible for reviewing and updating this strategy.

Performance indicators will be developed to provide feedback on the effectiveness of the Hub's knowledge brokering and communication. The Department of the Environment has procured expertise to develop a NESP Monitoring and Evaluation Plan. The Hub will identify its performance after the NESP plan is established.