



**Australian Government**

**Department of Climate Change, Energy,  
the Environment and Water**



# Designing an ecological knowledge system to support nature repair in Australia

The Ecological Knowledge System (EKS) will deliver information about ecosystems and biodiversity that will support participants in the Nature Repair Market scheme when it starts up. The EKS will integrate national data with regional information and expertise to support biodiversity assessment and management at local scales.

Credible, robust and transparent approaches will be used to design a fit-for-purpose and enduring EKS. Information in the EKS will help participants in the scheme to design projects and assess the potential benefits of their project for biodiversity. It will also support the comparison of biodiversity benefits across different projects.

The design of the EKS emphasises the important roles of First Nations Peoples<sup>1</sup> and the project team will support First Nations Peoples to develop a framework for meaningful input into the design of the EKS.

As part of its Nature Positive Plan, the Australian government has committed to developing a national Nature Repair Market scheme. The scheme will make it easier for businesses and others to invest in activities that enhance and protect nature. Improving access to high integrity environmental information will be key to the success of the scheme.



The EKS project will work with data and knowledge holders to identify information needed to understand, repair, and protect biodiversity across Australia.

<sup>1</sup> This term is inclusive of Aboriginal and Torres Strait Islander Peoples, Indigenous Australians, Traditional Owners, and Traditional Custodians.

## What will the project deliver?

Over 18 months, a project team from CSIRO will work with the Biodiversity Markets Branch of the Department of Climate Change, Energy, the Environment and Water (DCCEEW) to deliver a pilot-tested design for a practical and accessible Ecological Knowledge System (EKS).

The EKS will be designed to enable continuous improvement as the scheme evolves, knowledge improves and technology changes over time.

Outputs will include:

- A plan for the national roll-out of an operational EKS, including approaches to addressing key knowledge gaps and information infrastructure and governance requirements.
- A framework, co-developed with First Nations Peoples, about the ways that First Nations Peoples want their knowledge and values to be included in the EKS.
- A 'toolkit', tested in two pilot regions, that will provide easy access to practical information about different management actions to help plan biodiversity projects.
- Identification of suitable, existing information that can support consistent landscape assessment and targeted, cost-effective on-ground monitoring.
- An approach to assessing how different management actions are expected to benefit biodiversity at local, regional and national scales, over different timeframes, and in the context of scheme requirements and standards.

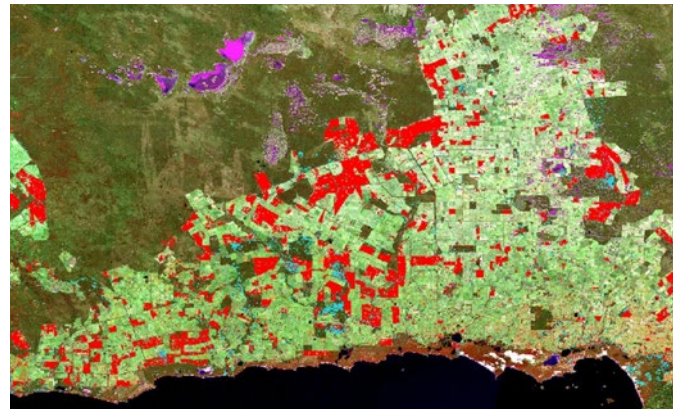


The Nature Repair Market will make it easier for private finance to invest in repairing and protecting biodiversity across Australia.

As Australia's national science agency, CSIRO is solving the greatest challenges through innovative science and technology. CSIRO. Creating a better future for everyone.

### Contact us

1300 363 400  
csiro.au/contact  
csiro.au



The EKS will help to ensure that people can access locally relevant ecological information to support the design of biodiversity projects.

## How will people be engaged in the design of the EKS?

A range of stakeholders will be engaged to provide expert advice, contribute data and knowledge and test the practical applications of the EKS. People may be engaged through face-to-face and web-based workshops, meetings and webinars.

In pilot regions, CSIRO will lead structured expert elicitation processes that will provide opportunities to populate the EKS toolkit with regional information about links between management and biodiversity outcomes.

A framework for working with First Nations Peoples on their terms will be co-developed with First Nations Peoples.

A workshop in early 2024 will bring together representatives from Indigenous land and sea management organisations to start co-designing processes for incorporating First Nations knowledge and values into the EKS.

Engagement processes will ensure that free, prior and informed consent (FPIC) is obtained from participants, supported by the provision of clear and accurate information before engagement. Best practice will be used to protect Indigenous Cultural and Intellectual Property (ICIP) and Intellectual Property (IP) related to data sharing.

The project team will also work closely across DCCEEW and with other government departments that may use the EKS.

The Biodiversity Markets Branch of DCCEEW will lead broader engagement with people and organisations that might participate in the Nature Repair Market scheme, including potential project proponents and buyers. This will ensure the EKS design is practical and can be improved as the scheme evolves.

### For further information

Environment  
Dr Helen Murphy  
+61 04 5668 8225  
helen.murphy@csiro.au  
csiro.au/environment

Department of Climate Change,  
Energy, the Environment and Water  
naturerepairmarket@dceew.gov.au  
dceew.gov.au