JULY 2025

ENHANCED ENVIRONMENTAL OUTCOMES FRAMEWORK

Queensland Conservation Council

CO2 Australia Pty Ltd

Executive Summary

The Enhanced Environmental Outcomes Framework (EEOF) has been developed by CO2 Australia in partnership with the Queensland Conservation Council (QCC) to assess how projects can deliver enhanced environmental outcomes that help restore nature, amid the ongoing decline of Queensland's environment and biodiversity. Recognising the limitations of current environmental legislation and offset policies, the EEOF provides a strategic, science-based, and inclusive framework to guide large-scale renewable energy projects toward delivering measurable and meaningful environmental gains.

Independent reviews have shown that Australia's environmental legislation and offset policies are failing to halt biodiversity decline. This includes findings from the Samuel Review and other assessments of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth; EPBC Act) and state-level frameworks.

While statutory offsets may deliver a relative benefit compared to a business-as-usual (BAU) scenario, this benefit is limited because BAU itself reflects ongoing environmental decline. The goal of relative no net loss or even net positive offset outcomes under current offset frameworks may still result in an absolute net loss of biodiversity. The EEOF offers a pathway to go beyond statutory offset obligations, aiming to deliver enhanced environmental outcomes that are more meaningful and impactful.

The EEOF is built around a five-stage Implementation Plan:

1. Identify impact project realm(s)
    - Determine which ecological realms (terrestrial, freshwater, marine, atmosphere) are affected by the project to help define the scope and focus of the Enhanced Environmental Outcome Project (EEOP).
2. Prepare an Environmental Outcome Priority Plan (EOPP)
    - This involves a strategic investigation into key challenges and threatening processes impacting natural ecosystems in the realm and geographical region (i.e. Local Government Area [LGA], catchment, bioregion, subregion etc) of the impact project and key targets for nature conservation in these regions.
    - Engagement with relevant stakeholders, including First Nations communities, is key to informing the EOPP to ensure timely, cost-effective and outcome-focused conservation projects are prioritised.
3. Develop an Enhanced Environmental Outcome Project (EEOP)
    - EEOP's should be designed, in collaboration with relevant stakeholders, to deliver outcomes beyond statutory offset requirements that meet principles of additionality, transparency, scientific robustness, and cultural sensitivity.
    - An EEOP is proposed to be made up of two parts, incorporating a fixed, additional land-based delivery of the project's matter of national environmental significance (MNES) and/or matters of state environmental significance (MSES) offset requirements, and an additional enhanced environmental outcome commitment reflecting the regional priorities identified in the EOPP. This includes:
        - Part 1: Delivery of 120% of statutory offset obligations for MNES and/or MSES
        - Part 2: Delivery of a land-based restoration project equivalent to the total project footprint, prioritising regional conservation goals and cultural values.

4. Define the EEOP baseline and metrics
    - To ensure the EEOP can effectively achieve its required outcomes for both Part 1 and Part 2 it is important to establish ecological baselines to measure improved conditions and benefits afforded.
    - Appropriate monitoring methodologies (e.g. BioCondition, AusRivAS, Accounting for Nature®) should also be chosen to track the progress of each EEOP in achieving the required outcomes.
5. Establish and maintain the EEOP
    - A program for long-term monitoring, reporting, and adaptive management is to be established to ensure outcomes are measurable, enforceable, and maintained for at least 20 years.
    - Secure funding and legal protection mechanisms (e.g. covenants, nature refuges) should also be considered to ensure the EEOPs viability and permanence.

To implement the EEOF effectively, the following actions are recommended:

- **Regulatory integration**: Collaborate with the State Assessment and Referral Agency (SARA) and the Office of the Coordinator-General (OCG) to embed EEOF requirements into EIS and approval conditions.
- **Funding and governance**: Establish long-term funding mechanisms (e.g. environmental trusts, stewardship agreements) and governance structures involving proponents, Traditional Owners, and regional partners.
- **Baselines and metrics**: Define ecological baselines and adopt robust monitoring methodologies such as BioCondition, AusRivAS, and Accounting for Nature® to track progress and validate outcomes.
- **Policy alignment**: Integrate EEOF principles into regional plans, local planning schemes, and bioregional planning pilots to ensure consistency with broader conservation strategies.
- **Pilot project**: Use a large scale renewable energy project such as the Borumba Pumped Hydro Project as a flagship case study to refine the framework and build stakeholder confidence.
- **Cultural inclusion**: Ensure Traditional Owner groups are engaged throughout the EEOP lifecycle, incorporating cultural indicators, totemic species, and traditional ecological knowledge.
- **Communication and advocacy**: Promote the EEOF's benefits to regulators, proponents, and the public, highlighting its role in supporting nature positive outcomes, climate resilience, and community co-benefits.

By advancing these recommendations, Queensland can lead the way in delivering science-based, culturally inclusive, and ecologically meaningful outcomes alongside its renewable energy transition.

VERSION CONTROL

Rev	Date	Description
0	24 January 2025	Draft for client review
1	25 March 2025	Updated based on client review, stakeholder and expert workshops
2	27 June 2025	Updated based on further stakeholder and expert workshops
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CO2 Australia acknowledges Traditional Owners and Custodians of Country throughout Australia and recognises their ongoing connection to lands, waters and communities. We pay our respects to Aboriginal and Torres Strait Islander Elders past and present.

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1 Introduction

Queensland's environment and threatened species are in decline. Current nature protection laws and environmental assessments relying on the delivery of biodiversity offsets as compensation are contributing to this continued decline. There is an increased policy focus in Australia and internationally on achieving nature positive outcomes to halt this decline; however, this would require the amendment and enforcement of legislation, assessment frameworks and tools to protect nature.

At the same time, to reduce emissions to keep our environment and communities safe, further development of renewable energy and storage is required. While these projects will have local environmental impacts, they also present an opportunity to focus on better environmental management and work towards nature positive outcomes.

The Queensland Conservation Council (QCC) has engaged CO2 Australia to develop a framework to assess how projects can deliver enhanced environmental outcomes that help restore nature, with the assistance of a grant from the previous Queensland Government.

The Enhanced Environmental Outcomes Framework (EEOF) was developed by CO2 Australia through the following process. As part of this process QCC and CO2 Australia facilitated multiple stakeholder workshops to develop the process to create an implementation plan for an EEOF and identify a short list of options to deliver enhanced environmental outcomes, as an example, noting these will need to be further refined and funding options identified as part of the EEOF.

- meetings and liaison with QCC to establish scope and framework objectives,
- strategic assessment of relevant international, national, state and regional frameworks, legislation, policies and plans,
- draft framework and develop concepts,
- meeting with academic experts for consultation on technical aspects of the framework,
- workshop with NRM and local government in test regions; Gympie (February 2025) and Cooroy (May 2025) to compile community stakeholder perspectives on the Framework more widely and regional environmental objectives more specifically, and
- update framework in consideration of all feedback and any industry developments.

2 Strategic assessment

A strategic assessment of relevant frameworks, legislation, policies and plans has been undertaken to inform the need for and development of the EEOF, in the context of failure of current systems and an ultimate goal of achieving nature positive.

2.1 National and international frameworks

This section provides an overview of the national and international frameworks that aim to either protect nature or provide mechanisms to report on and/or measure impacts on nature.

Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets

At the tenth meeting of the Conference of the Parties (COP 10) in October 2010 in Nagoya, Japan, 193 countries agreed to adopt the Nagoya Protocol, which included a revised and updated *Strategic Plan for Biodiversity, 2011-2020*.

The *Strategic Plan for Biodiversity, 2011-2020* included 20 targets (the Aichi Biodiversity Targets) organised under five strategic goals:

- Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.
- Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use.
- Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.
- Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services.
- Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building.

NAGOYA PROTOCOL VISION (2010)

Take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet's variety of life, and contributing to human well-being, and poverty eradication. To ensure this, pressures on biodiversity are reduced, ecosystems are restored, biological resources are sustainably used and benefits arising out of utilization of genetic resources are shared in a fair and equitable manner; adequate financial resources are provided, capacities are enhanced, biodiversity issues and values mainstreamed, appropriate policies are effectively implemented, and decision-making is based on sound science and the precautionary approach.

As a Party to the Convention on Biological Diversity (CBD), Australia adopted the *Strategic Plan for Biodiversity, 2011-2020* as the guiding framework for Commonwealth, State and Territory governments to conserve our national biodiversity to 2020. In 2014, all Parties to the CBD, including Australia, were requested to review, and as appropriate update and revise, their National Biodiversity Strategy and Action Plans. The review, conducted by the Commonwealth, State and Territory governments, and the Australian Local Government Association, identified that while progress was consistent with the intended objectives of the Strategy, it was not a strong driver of these efforts. Amongst the key findings of the review was the conclusion that there was inadequate guidance for decision makers to determine how best to direct investment for biodiversity conservation, with one of three recommendations to coordinate effort and leverage investment on shared priorities for biodiversity management (Commonwealth of Australia 2016).

Kunming-Montreal Global Biodiversity Framework

At the fifteenth meeting of the Conference of the Parties (COP 15) in Montreal, Canada in December 2022, the *Kunming-Montreal Global Biodiversity Framework* (KMGBF) was adopted, replacing the *Strategic Plan for Biodiversity 2011-2020* and its Aichi Targets.

As a signatory, Australia joined 187 other countries committing to the ambitious global vision of a world living in harmony with nature by 2050. The KMGBF includes 23 action-oriented global targets for urgent action over the decade to 2030 and four long-term goals for 2050:

- Goal A:
  - The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, substantially increasing the area of natural ecosystems by 2050.
  - Human induced extinction of known threatened species is halted, and, by 2050, extinction rate and risk of all species are reduced tenfold, and the abundance of native wild species is increased to healthy and resilient levels.
  - The genetic diversity within populations of wild and domesticated species is maintained, safeguarding their adaptive potential.
- Goal B:
  - Biodiversity is sustainably used and managed and nature's contributions to people, including ecosystem functions and services, are valued, maintained and enhanced, with those currently in decline being restored, supporting the achievement of sustainable development, for the benefit of present and future generations by 2050.
- Goal C:
  - The monetary and non-monetary benefits from the utilization of genetic resources, and digital sequence information on genetic resources, and of traditional knowledge associated with genetic resources, as applicable, are shared fairly and equitably, including, as appropriate with indigenous peoples and local communities, and substantially increased by 2050, while ensuring traditional knowledge associated with genetic resources is appropriately protected, thereby contributing to the conservation and sustainable use of biodiversity, in accordance with internationally agreed access and benefit-sharing instruments.
- Goal D:
  - Adequate means of implementation, including financial resources, capacity-building, technical and scientific cooperation, and access to and transfer of technology to fully implement the KMGBF are secured and equitably accessible to all Parties, especially developing countries, in particular the least developed countries and small island developing States, as well as countries with economies in transition, progressively closing the biodiversity finance gap of $700 billion per year, and aligning financial flows with the KMGBF and the 2050 Vision for Biodiversity.

KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK VISION (2022)

To take urgent action to halt and reverse biodiversity loss to put nature on a path to recovery for the benefit of people and planet by conserving and sustainably using biodiversity and by ensuring the fair and equitable sharing of benefits from the use of genetic resources, while providing the necessary means of implementation.

On the back of the adoption of the KMGBF, the Australian Government, working with State and Territory environment ministers, agreed in November 2023 on six priority areas for national action under the updated *Australia's Strategy for Nature 2024 – 2030* (Commonwealth of Australia 2024):

- protect and conserve 30% of Australia's land and 30% of Australia's oceans by 2030,
- work towards zero new extinctions,
- effective restoration of degraded terrestrial, inland water, marine and coastal ecosystems,
- tackle the impact of invasive feral species,
- build a circular economy and reduce the impact of plastics on nature, and
- minimise the impact of climate change on nature.

In order to achieve all national targets, the ministers agreed on three enablers of change to halt and reverse biodiversity loss in Australia and put nature on a path to recovery. Of the three enablers of change, one is to incorporate nature into government and business decision-making including financing, policy reform, regulation and planning.

Nature Positive Initiative

The concept of nature positive, while first coined in the 1970s, rose to prominence and common discourse in 2022 with the endorsement of the KMGBF. The term is intended to drive society to deliver a measurable absolute improvement in the state of nature against a defined baseline.

Put simply, the definition of nature positive is to 'halt and reverse nature loss by 2030 on a 2020 baseline, and achieve full recovery by 2050' (Nature Positive Initiative 2025). The nature positive concept considers three temporal objectives:

- *Zero net loss of nature from 2020* – the year 2020 serves as the reference baseline for zero net nature loss to ensure restoration efforts and retention of large intact areas, and remaining natural ecosystem fragments propel the Earth toward the 2030 net nature positive goal.
- *Net positive by 2030* – by the year 2030, there is sufficient improvement in the abundance, diversity and resilience of species and ecosystems to halt and reverse nature loss, and achieve net nature positive.
- *Full recovery by 2050* – by the year 2050, there are sufficient functioning ecosystems to safeguard the stability and resilience of the Earth system, to support all life on Earth.

Further discussion of nature positive as a global goal and its current status in Australia is provided in Section 3.2.

2.2 Legislation and reviews

The purpose of this section is to summarise the primary legislation and policies relevant to environmental protection at a Commonwealth level, as well as for Queensland and New South Wales, including independent reviews of them.

Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

The *Environment Protection and Biodiversity Conservation Act 1999* (Cth; EPBC Act) came into force on 16 July 2000 and is Australia's main national environmental legislation, providing a framework for the protection of the Australian environment, including its biodiversity and natural and culturally significant places. The EPBC Act refers to the living things (including plants and animals), habitats and

places that need protecting as one of nine Matters of National Environmental Significance (MNES). These include (amongst others) listed threatened species, threatened ecological communities (TECs), migratory species and wetlands of international importance listed under the Ramsar Convention.

The nine 'protected matters' include:

- World Heritage areas,
- National Heritage places,
- Wetlands Of International Importance (listed under the Ramsar Convention),
- listed threatened species and TECs,
- listed migratory species,
- Commonwealth marine areas,
- Great Barrier Reef Marine Park,
- nuclear actions (including uranium mines), and
- water resources (that relate to coal seam gas development and large coal mining development).

When a project or an 'action' has, will have, or is likely to have, a significant impact on any of these MNES, projects must be referred to the Australian Government Department of the Environment (the Department) for a decision by the Australian Government Environment Minister (the Minister) whether assessment is required under the EPBC Act. Impacts should be avoided where possible and practicable. If an impact cannot be avoided, then it should be minimised or mitigated if feasible. If the Minister determines the project results in a significant residual impact (i.e. a controlled action), then a full assessment is undertaken under Part 9 of the EPBC Act and an offset option may be required. Where an offset is required, the Department assesses the project or action against the EPBC Act *Environmental Offsets Policy*.

Samuel Review

Section 522A of the EPBC Act requires an independent review of the Act to be undertaken at least every 10 years to ascertain the extent to which the objects of the Act have been achieved. Following the first independent review in December 2009 (Hawke Review), a second independent review commenced in October 2019; led by Professor Graeme Samuel AC. The final report of this second independent review (Samuel Review) was delivered to the Minister on 30 October 2020 and was released publicly on 28 January 2021.

The Samuel Review identified systemic failures and inadequacies of not just the EPBC Act but the implementation of the Act to achieve its objectives in protecting the environment. Consequently, the environment continues to suffer and there has been an overall decline over the past two decades, including additional threat status listings and continued declines in existing threatened species and TECs. The Samuel Review concluded that a total overhaul of the EPBC Act is required and National Environmental Standards focussing on better outcomes for MNES and sound decision-making needs to be developed to halt further environmental declines.

> *The EPBC Act does not clearly outline its intended outcomes, and the environment has suffered from 2 decades of failing to continuously improve the law and its implementation.*
>
> Professor Graeme Samuel AC
> October 2020

In developing the EEOF, the recommendations of the Samuel Review have been taken into consideration. The trajectory for wildlife and habitats under the management of the EPBC Act is continuing to decline and the environment overall is not sufficiently resilient to withstand current, emerging and future threats. The EEOF therefore represents an approach that supplements what is currently identified as an inadequate approach to managing impacts on EPBC Act protected matters and providing an enhanced environmental outcome to what is currently required under the Act.

Queensland *Environmental Offsets Framework*

The Queensland *Environmental Offsets Framework* is underpinned by a number of legislative instruments and policies, including the *Environmental Offsets Act 2014* (Cth) (the Offsets Act), the *Environmental Offsets Regulation 2014* (Cth) (the Offsets Regulation) and the *Queensland Environmental Offsets Policy* (QEOP [DESI 2024b]). The Offsets Regulation provides further information on subjects from the Offsets Act including details on activities and prescribed environmental matters, review of decisions made under the Act and declaration of an advanced offset (DESI 2024a). The Offsets Policy is a guide for the assessment of offset proposals to ensure they meet the requirements of the Offsets Act.

As with the EPBC Act, the Queensland *Environmental Offsets Framework* identifies the need for an offset when a prescribed activity will have a significant residual impact on a prescribed environmental matter, despite reasonable measures taken to avoid and/or mitigate. Prescribed environmental matters under the Queensland *Environmental Offsets Framework* include MNES, Matters of State Environmental Significance (MSES), protected and regulated under Queensland legislation, and Matters of Local Environmental Significance (MLES), prescribed under a local planning instrument.

The Offsets Act provides three options for offset delivery:

- financial settlement offset,
- proponent-driven offset, or
- a combination of financial settlement offset and proponent-driven offset.

DES Review

The Queensland Government initiated a review of the Queensland *Environmental Offsets Framework* in late 2018, following an election commitment in 2017. Following a release of a discussion paper for public consultation in February 2019, a Consultation and Response Report was released in October 2020 (Department of Environment and Science [DES] 2020) detailing the Government's response to implementing reforms to the framework.

The Consultation and Response Report identified that while most stakeholders supported the continued use of environmental offsets in Queensland, consensus across all stakeholder groups was that reforms were needed to elements of the framework. This included better alignment with Federal Government offsets framework and improved guidance on delivery of offsets.

> *Many submitters from the conservation sector and general community are concerned that the framework is not achieving the objective of counterbalancing unavoidable impacts and suggested that greater monitoring is required. Some expressed the view that offsets would never function in principle.*
>
> Consultation and Response Report (DES) October 2020

One of the concerns raised by stakeholders was the efficacy of financial offsets with many submissions stating amounts required are too low to deliver on offset requirements. Concerns regarding financial offsets are often raised by industry professionals and academics, namely that financial repayments required under the QEOP (DESI 2024b) are often insufficient to achieve the required outcome (e.g. Rhodes *et al*. 2023).

The Consultation and Response Report (DES 2020a) identified 15 key areas for reform. Of relevance to the development of the EEOF were the following key areas identified:

- Key area 3: Improve monitoring, adaptive management and compliance.
- Key area 4: Prevent unachievable offset conditions.
- Key area 6: Identify and deliver offsets in strategic locations.
- Key area 7: Align the offsets framework with conservation priorities.

Except for key area 6, implementation of reforms for all the abovementioned key areas was identified in the Consultation and Response Report as being deferred to Stage 2 of the offset reforms (scheduled for early 2021); informed by multisector reference groups. While some amendments to the QEOP (DESI 2024b) have been made to address some of the key areas of reform, it is not clear (as of January 2025) whether any of the multisector reference groups have convened to address the Stage 2 reform items. Current advice on the Queensland Government website identifies that further regulatory reforms to Queensland's Environmental Offsets Framework will be progressed once the Commonwealth Government's Nature Positive reforms are better understood.

New South Wales *Biodiversity Conservation Act 2016*

The *Biodiversity Conservation Act 2016* (New South Wales [NSW]; BC Act) commenced on 25 August 2017 as part of the land management reforms introduced to make changes to the way biodiversity is protected and managed and how development activities on land are regulated. The purpose of the BC Act is to maintain the environment for the well-being of the community, now and in the future, whilst maintaining ecologically sustainable development.

Offsetting requirements within NSW are covered by the BC Act under the *Biodiversity Offsets Scheme* (BOS). The BOS provides a mechanism to avoid, minimise and offset impacts on biodiversity in NSW. This is undertaken through a credit obligation where developers can purchase and retire credits offered by landholders on the credit market. The BOS created a market for biodiversity credits

which allows people to create, buy and sell biodiversity credits. Credits are generated by securing and managing an area of land to improve biodiversity. The aim of the BOS is to mitigate impacts from offsets at stewardship sites, delivering no net loss to biodiversity. Like Queensland's *Environmental Offsets Framework*, the BOS requires developers to avoid and/or minimise impacts to biodiversity before an offset is approved. To meet credit obligations, developers can purchase and retire like-for-like credits which transfers their obligation to the Biodiversity Conservation Trust by paying into the Biodiversity Conservation Fund, or rely on offset variation rules or funding biodiversity conservation actions.

Henry Review

Under Section 14.11 of the BC Act, the Minister administering the BC Act is required to undertake a review of the Act as soon as possible after the period of five years from the commencement of the BC Act. In 2022, Dr Ken Henry AC led the independent review and on 24 August 2023, the review's final report was tabled in NSW Parliament.

The key outcomes of the review identified that the BC Act is failing to meet its primary purpose of maintaining a healthy, productive and resilient environment, resulting in a failure to conserve biodiversity at the bioregional or State scale. The findings identified that while the BC Act was only five years old at the time of the review, the objects of the act are already obsolete; being guided by the principles of sustainable development; principles no longer fit for purpose.

> *It must also be acknowledged that increasing credit [offset] obligations may increase development costs, reducing the financial viability of projects that have a negative impact on biodiversity. That is as it should be.*
>
> Dr Ken Henry AC
> August 2023

Instead, the Henry Review noted that given the environment is now so damaged, there must be a commitment made to make drastic changes that necessitate the need for a "nature positive" approach which means the environment is repaired and regenerated. This contrasts with traditional sustainability approaches, which have sought to minimise negative impacts by slowing or stabilising the rate of biodiversity loss.

The Henry Review delivered 58 recommendations, grouped into broad topics such as amending the BC Act to incorporate a nature positive architecture, development of a Nature Positive Strategy and spatial tools, species and ecosystem recovery efforts, data-informed decision-making, leveraging private investment in restoration and conservation outcomes, and considering intersections with other Acts. In addition to these, there were also recommendations centred around strengthening the BOS to deliver a net positive biodiversity outcome. This includes proposed changes to the BOS and credit obligations, including a stronger emphasis on the need for proponents to demonstrate avoid and mitigate commitments of the offset mitigation hierarchy before an offset will be considered under the BC Act. The Henry Review also suggested expanding the credit supply for offsets to allow landholders to enter into Biodiversity Stewardship Agreements and giving greater credit value to restoration sites and protecting connectivity areas.

On 17 July 2024, the NSW Government released the *NSW Plan for Nature* (DCCEEW 2024c) in response to the Henry Review of the BC Act. In all, 49 of the 58 recommendations in the Henry Review were supported, or supported in principle. With the release of the *NSW Plan for Nature*, and the introduction of the *Biodiversity Conservation Amendment (Biodiversity Offsets Scheme) Bill 2024* (NSW) on 15 August 2024, the NSW Government have committed to a number of immediate and longer-term actions, including:

- amending the BOS to transition to overall 'net positive' outcomes over time, beyond the current 'no net loss' standard,
- promoting offsets as a last resort, by strengthening the avoid, minimise and offset hierarchy by requiring proponents to demonstrate how they have genuinely avoided and minimised impacts to biodiversity, and
- transitioning the BOS to achieve 'net positive' biodiversity outcomes, tasking the Minister to develop a transition strategy including targets, timeframes and actions.

While the proposed amendments to the BC Act are still awaiting ascension through the NSW Parliament, those amendments represent the first shift by any State or Territory Government in Australia toward environmental and offset frameworks incorporating nature positive outcomes.

Nature Repair Act 2023 (Cth)

The *Nature Repair Act 2023* (Cth) (NR Act) came into effect on 15 December 2023 and establishes a framework for a world-first legislated, national, voluntary biodiversity market. The NR Act provides legislated rules to support transparency and integrity to foster collaborative efforts to set Australia on a path toward reversing biodiversity loss and increasing the overall health and resilience of ecosystems. Importantly, the NR Act contributes to Australia's international biodiversity obligations such as the KMGBF and implements priority initiatives established under the Commonwealth Government's *Nature Positive Plan* (DCCEEW 2022) released in December 2022, including:

- protecting 30% of Australia's land and seas by 2030,
- working towards no new extinctions, and
- driving investment in nature and encouraging businesses to report their nature-based financial risks.

The NR Act will establish the Nature Repair Market (the Market), which will be a voluntary market for investment in biodiversity improvements. The Market will be administered by the Clean Energy Regulator which also administers the Australian Carbon Credit Unit Scheme. The Commonwealth Government are developing legislative Nature Repair Rules, methodologies and biodiversity assessment instruments that will set the foundation for the Market where individuals and organisations can participate in nature repair projects on Australian land and/or waters to generate a tradeable certificate.

2.3 Regional plans and strategies

In Queensland, there are several different types of regional plans and strategies prepared by the Queensland Government to guide everything from land use, growth and development in different regions of the state, as well as identifying areas of biodiversity significance. Example plans include:

- Statutory regional plans under the *Planning Act 2016* (Qld) and the *Regional Planning Interest Act 2014* (Qld) – these regional plans have a statutory role and must be considered in local government planning schemes and development assessments.
- Biodiversity Planning Assessments (BPAs) – while not a statutory plan, they are prepared for all bioregions in Queensland and identify key biodiversity areas including areas of high and general ecological significance, connectivity corridors and the location of threatened species and ecosystems.

These various strategic planning documents are regularly (or occasionally) updated and aim to balance economic development, environmental sustainability and community well-being by providing a framework for managing growth and change. The Queensland Government has committed to reviewing all regional plans in the 2024-28 term of government.

3 Key principles and outcomes

This section provides a summary of the findings of the strategic assessment and demonstrates the necessity of developing the EEOF, as well as the key principles and desired outcomes of the framework.

3.1 Current legislative requirements

As outlined by the independent reviews of environmental legislation (e.g. Samuel Review of the EPBC Act – Section 2.2), Australia's Commonwealth and State environmental laws are failing to protect, let alone enhance, our nature values. Despite good intentions, and implementation of nature protection legislation and policies throughout Australia, we are continuing to see an increase in threatened species listings, along with a continued decline in populations of threatened flora and fauna species and an associated contraction in the extent of remnant vegetation cover, including that of threatened regional ecosystems and TECs. This implies the referral and development assessment processes under State and Commonwealth legislation are resulting in ongoing declines in nature.

Much of Australia's legislation attempts to implement an offset mitigation hierarchy. There are three steps that are required to be followed to demonstrate concerted efforts to minimise impacts to nature:

- Avoid impacts – demonstrate how a proposed development will either avoid an impact on nature, or at the very least demonstrate how any residual impact will be reduced.
- Mitigate impacts – having demonstrated how impacts have been avoided or reduced, consider other processes, methods or timing to reduce how likely or serious any unavoidable impacts to nature will be.
- Offset – the final step in the offset mitigation hierarchy, offsets should only be considered and applied once impacts have been avoided and mitigated to the greatest extent possible. An offset is then required to be provided for any remaining significant residual impact.

Where the offset mitigation hierarchy has been implemented for a project, and offsets are conditioned, those offsets are required to deliver a 'no net loss' outcome; ideally delivering an outcome that is 'net positive'. However, a no net loss or net positive outcome is one relative to a business-as-usual (BAU) scenario (refer to Figure 1).

While acknowledging that a no net loss offset or even a net positive offset can deliver a *relative* benefit compared to a BAU scenario, it needs to be acknowledged that nature values, in a BAU scenario, are still in a declining state. Consequently, while statutory offset obligations are capable of delivering a relative no net loss or relative net positive outcome compared to a BAU scenario, this does not necessarily imply that there is an improvement in nature value, with the likelihood that even a relative net positive outcome is likely to still be delivering an absolute net loss (Figure 1) (Souza et al. 2023, Ermgassen et al 2019, Simmonds et al. 2019, Gardner et al 2013).

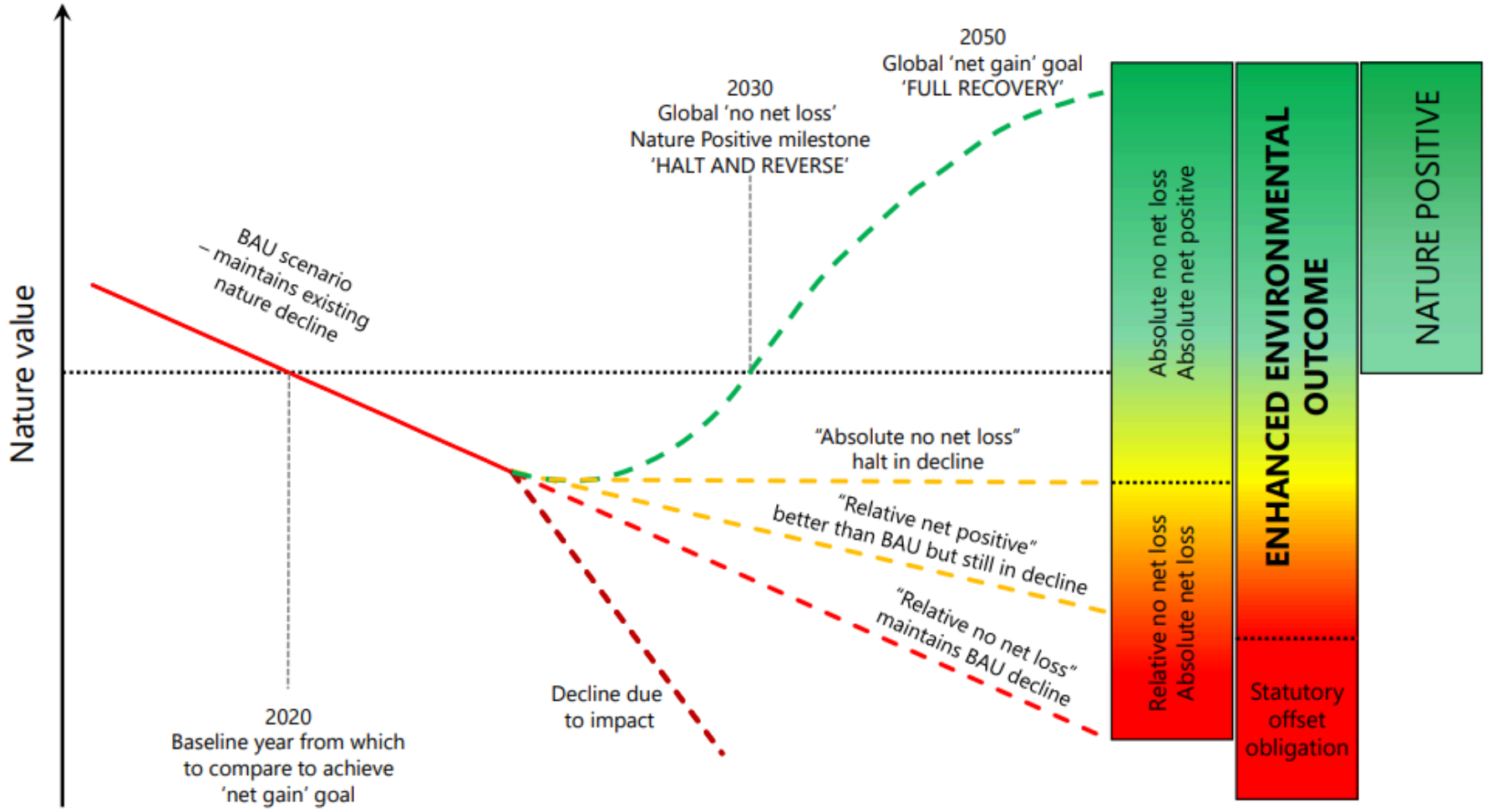


Figure 1: Conceptual diagram of how the EEOF fits into a response to nature decline framework

3.2 Nature Positive – the global goal for nature

The world is facing an unprecedented nature crisis, marked by the rapid decline of species across ecosystems due to human activities such as habitat destruction, pollution, climate change and resource overexploitation. This loss of biodiversity threatens not only the intricate balance of nature but also the essential services that ecosystems provide, such as clean air, water and food security. As the list of threatened species continues to grow, the resilience of ecosystems diminishes, making it harder for the planet to support life in the face of growing environmental challenges. In recognition of the urgent action needed to halt the decline in nature, the concept of nature positive emerged as a global societal goal for nature in parallel to the development of goals and targets under the KMGBF (refer to Section 2.1).

> *Humanity is waging a war on nature; this is suicidal. Making peace with nature is the defining task of the 21st century. It must be the top, top priority of everyone, everywhere.*
> UN Secretary General António Gutteres
> December 2020

Figure 1 conceptualises the 'nature positive' model; identifying the three temporal objectives (2020 baseline, 2030 net positive and 2050 full recovery milestones; Section 2.1) with reference to BAU scenarios, represented by an acknowledged decline in nature value. Included in Figure 1 is the relative no net loss and relative net positive milestones that underpin the biodiversity offsetting model. As can be seen in the figure, the nature value outcomes realised from statutory offset obligations fall well short of those from nature positive outcomes.

Diluting the urgency of nature positive

The term 'nature positive' has increasingly become a panchreston; referring to a term that is so broadly inclusive in describing a concept that it has become meaningless in a specific context. This is due in large part to the term nature positive being overused and oversimplified, representing an all-encompassing goal without clear, actionable definitions or measurable outcomes. More concerning is the fact that the term nature positive is being used widely across various policies, frameworks and environmental strategies in the public and private sector to describe a variety of activities that, by virtue of incorporating some environmental initiative, consideration, impact minimisation or restoration, is considered to deem it worthy of the title of nature positive. Aside from an absence of any appropriate, agreed baseline from which to assert a sufficient enough uplift in nature value to conclude a nature positive outcome, the misuse of the term nature positive functions to not only erode the urgency and scientific validity of the need to achieve nature positive outcomes, but also increases the risk of 'greenwashing'.

Australian perspectives on nature positive

The establishment of a Nature Repair Market under the Australian Government's NR Act aims to encourage "nature positive land management practices that deliver improved biodiversity outcomes".

While initiatives like the Nature Repair Market under the NR Act will be established in accordance with a combination of Nature Repair Rules, methodologies and biodiversity assessment instruments, it is unclear how the aspirational goals of delivering on nature positive outcomes will be achieved. As of January 2025, there is yet no national consensus on what constitutes the 2020 baseline value of nature from which the 2030 nature positive and 2050 net gain full recovery milestones will be calculated. The first step to realising this was the introduction to the Australian Parliament, on 29 May 2024, of the *Nature Positive (Environment Information Australia) Bill 2024* (Cth), the purpose of which is to:

- establish the statutory position of the Head of a new federal independent body called Environment Information Australia (EIA) to provide access to, assess and report on environmental information and data,
- define nature positive as an "improvement in the diversity, abundance, resilience and integrity of ecosystems from a baseline",
- establish a baseline from which to measure and report Australia's progress toward nature positive at the national scale, and
- develop and implement a monitoring, evaluation and reporting framework to report on Australia's progress towards achieving the nature positive objective.

It is understood that EIA has been tasked with setting the nature positive 'baseline' by no later than 31 December 2025; which, even if delivered on time, will be just four years before nature positive milestones are proposed to be delivered in accordance with the NR Act.

3.3 Enhanced Environmental Outcomes

In light of independent reviews demonstrating the ineffectiveness of environmental legislation and environmental offset policies throughout Australia in halting nature decline, an EEOF represents an opportunity to commit to outcomes beyond current statutory offset obligations.

As outlined in Figure 1, an enhanced environmental outcome is considered any environmental outcome that is above and beyond a project's statutory offset obligation, akin to Additional Conservation Outcomes (ACA)[1]. This includes outcomes that, while 'relative net positive', may still represent an absolute net loss. It then logically includes outcomes achieving 'absolute net positive', with 'nature positive' outcomes only achievable in specific circumstances (Section 3.2), representing projects demonstrating outcomes that halt and reverse nature decline relative to an agreed 2020 baseline.

Section 4 outlines the development of the EEOF and its implementation.

4 Framework

The following section provides a practical guide to the implementation of the EEOF. It is recommended that the EEOF is considered alongside the design, development and delivery of any compensatory measures required to satisfy a Project's statutory offset requirements, as described in Figure 2.

While the purpose of the EEOF is to provide an environmental outcome that is additional to the benefits achieved through any statutory project offsets, the coordinated, strategic delivery of offsets and the EEOF has the potential to achieve a greater environmental outcome for the region as well as provide opportunities for economies of scale.

[1] Additional Conservation Actions represent measures taken that have positive (yet difficult to quantify) effects on biodiversity. These qualitative outcomes do not fit easily into the mitigation hierarchy but may provide crucial support to mitigation actions (https://www.thebiodiversityconsultancy.com/services/site-level-advisory/mitigation-hierarchy/).

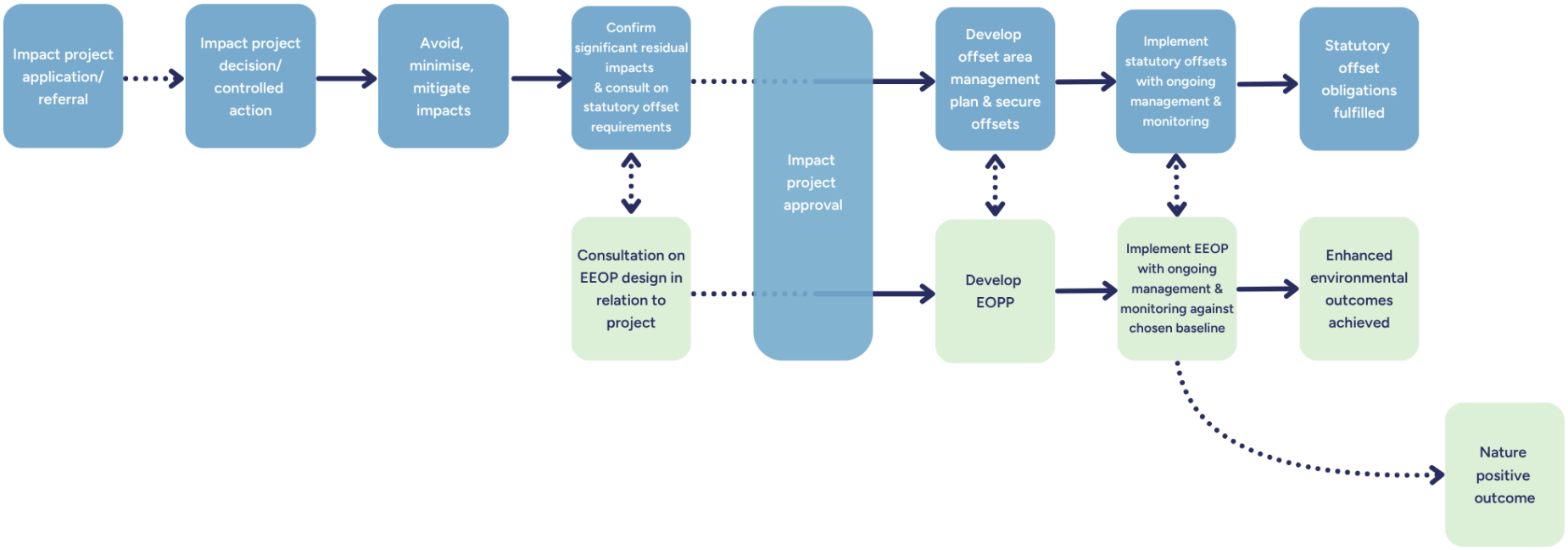


Figure 2: Implementation of the EEOF in conjunction with an impact project

4.1 Implementation Plan

To implement the EEOF for an impact project, a proponent should follow the Implementation Plan as displayed in Figure 4. The Implementation Plan comprises five key stages:

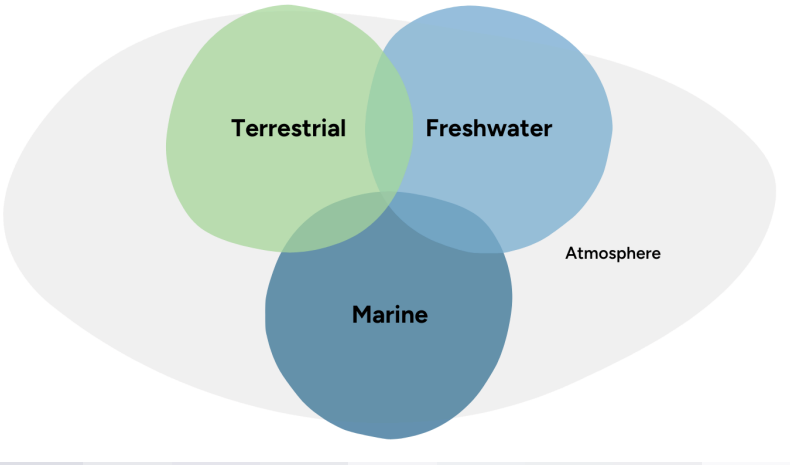
- identify impact project realm/s,
- prepare an Environmental Outcome Priority Plan (EOPP),
- develop an Enhanced Environmental Outcome Project (EEOP),
- define the EEOP baseline and metrics, and
- establish and maintain the EEOP.

Each stage of the Implementation Plan is designed to assist the proponent in the identification of an appropriate EEOP, with focus placed on aligning it with the project impacts and/or the EOPP.

4.1.1 Identify impact project realm/s

The impact project's realm is defined as the ecosystem component in which the impact project will occur. Realms represent the major components of the living, natural world that differ fundamentally in ecosystem organisation and function, and comprise the following:

- Terrestrial (land),
- Freshwater
- Marine (ocean), and
- Atmosphere.



The inclusion of atmosphere as a realm reflects the importance of air quality and its close association with its dependencies and impacts on nature, as well as its interaction with nature-related (and climate-related) risks and opportunities. Notwithstanding, environmental assets and approaches for identifying and prioritising projects delivering enhanced environmental outcomes will be limited herein to the terrestrial, freshwater and marine realms.

The approach for identifying nature-related realms is consistent with the Locate, Evaluate, Assess and Prepare (LEAP) approach under the Taskforce for Nature-related Financial Disclosures (TNFD) *Guidance on the identification and assessment of nature-related issues* (TNFD 2023) and the Nature Positive Initiative (2025) which identifies the importance of these realms to build a comprehensive view of the state of nature. For projects that impact more than one of the terrestrial, freshwater or marine realms, the proponent should consider an EEOP incorporating each realm or at least affording tangible, measurable enhanced environmental outcomes in each realm.

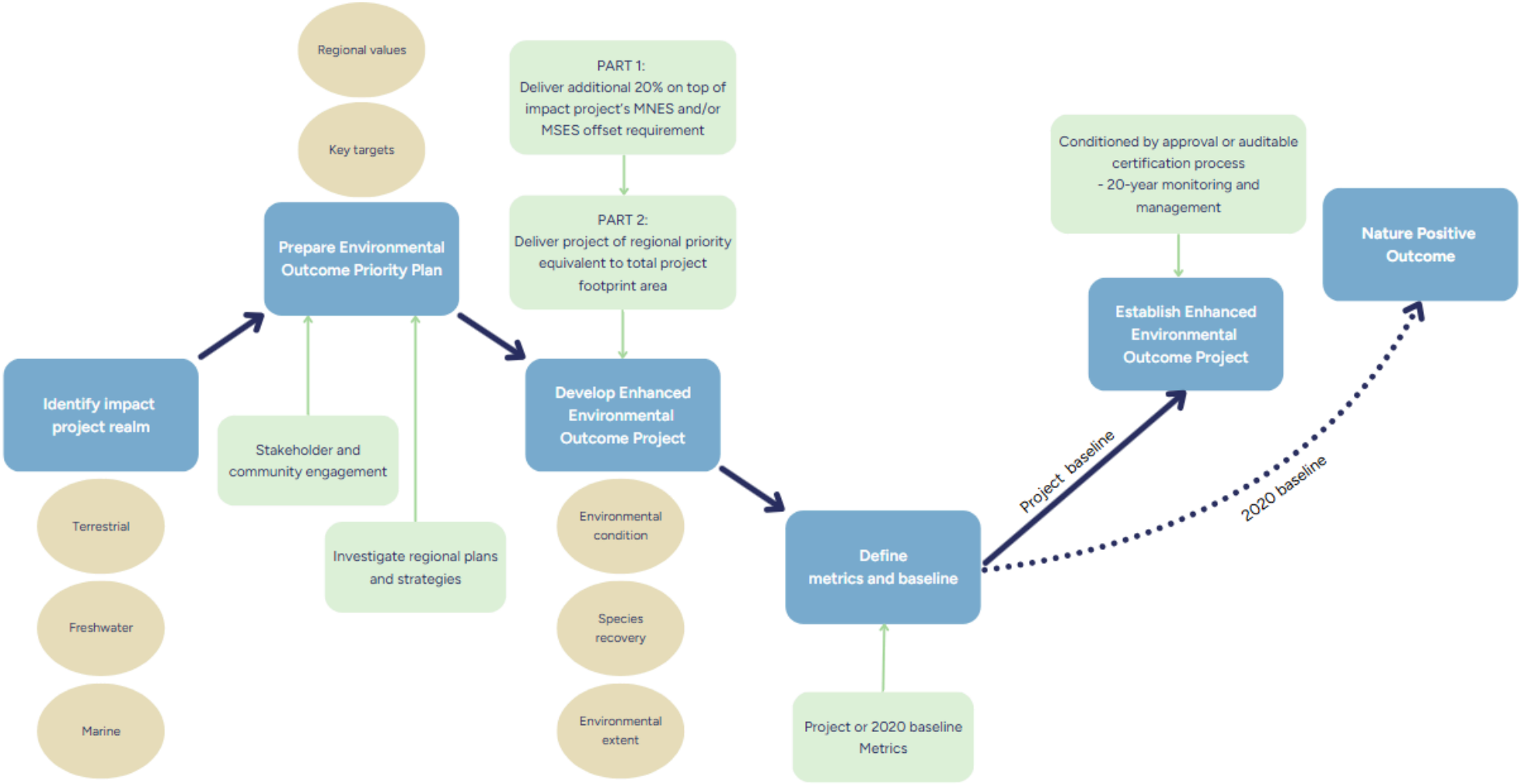


Figure 4: Implementation Plan for an Enhanced Environmental Outcome Project

4.1.2 Prepare Environmental Outcome Priority Plan (EOPP)

Preparation of an EOPP is an integral step involving a strategic investigation into key challenges and threatening processes impacting natural ecosystems in the realm and geographical region (i.e. Local Government Area [LGA], catchment, bioregion, subregion etc) of the impact project and key targets for nature conservation in these regions. An EOPP should consider regional planning and strategy documents, (e.g. LGA planning schemes, Biodiversity Planning Assessments [BPA], NRM Group strategies), as well as the results of engagement with relevant stakeholders and the community to ensure timely, cost-effective and outcome-focused conservation projects are prioritised.

Reviewing regional plans and strategies

Reviewing statutory regional plans under the *Planning Act 2016* (Qld) and the *Regional Planning Interest Act 2014* (Qld), other relevant regional strategies, local planning schemes (including environmental and biodiversity mapping overlays) and BPAs can assist in identifying relevant stakeholders, as well as project opportunities that align with stakeholder interests.

As part of the current EPBC Act reforms, the Australian and Queensland Governments are working together to better manage the environment in specific areas of Queensland. Through a bioregional planning process, the Queensland Government is developing pilot Bioregional Plans that support sustainable development and provide the community and industry with greater certainty. While these bioregional plans will be developed in key development areas targeting particular development types (e.g. urban development in southeast Queensland), it is anticipated that these targeted Bioregional Plans will be expanded across the state and consolidate inter-jurisdictional priorities. Importantly, and relevant to assisting with the development of an EOPP, the Bioregional Plans will assist with identifying relevant areas for targeted investment in restoration and other environmental projects.

Stakeholder and community engagement

At this stage of the Implementation Plan, the proponent is encouraged to evaluate previous or development-stage EOPPs (or similar) within the same region as the impact project or that address similar impact matters. This should streamline the prioritisation process and promote effective, coordinated conservation outcomes. For instance, a proponent seeking to restore an environmental corridor for koala movement through establishing an environmental planting should consider whether other proponents have undertaken similar initiatives in nearby areas. If so, this would provide an opportunity to connect and/or consolidate these efforts for optimal conservation outcomes.

The proponent should also engage with stakeholders and community to determine the availability of existing baseline environmental data collected as part of existing projects and/or proposed new projects/programs. Understanding the existing data will assist proponents and stakeholders to collaborate on potential project opportunities. The collection and comparison of environmental data on a temporal and spatial scale, whether it be project-specific or relevant to the region, is important to ensure measurable and meaningful outcomes can be achieved (refer to Section 4.1.4).

Identifying stakeholders and prioritising engagement with the community (including First Nations peoples) is essential for successful development of and support for an EEOP. Identify who would be directly impacted by or influential in the impact project and engage early with local communities and First Nations groups through consultation processes that prioritise their knowledge systems, rights and interests.

4.1.3 Develop Enhanced Environmental Outcome Project (EEOP)

Principles for an Enhanced Environmental Outcome Project

An EEOP should be developed to meet the following principles. These principles have been developed in consideration of the QEOP (DESI 2024b) and the EPBC Act Environmental Offsets Policy (DSEWPC 2012) to avoid duplication and align the delivery of both an EEOP and statutory offsets to ensure a strategic and effective outcome is achieved.

A suitable EEOP must:

- not replace or undermine existing environmental and native title standards or regulatory requirements or be used to allow development in areas otherwise prohibited through legislation or policy
- be additional to what is already required, determined by law or planning regulations or agreed to under other schemes or programs
- reasonably avoid or minimise harm to Aboriginal and Torres Strait Islander cultural heritage to ensure the obligations under existing cultural heritage legislation are reflected
- deliver an overall conservation outcome that improves or maintains the viability of the aspect of the environment as similar as possible to those being lost
- effectively account for and manage the risks of the EEOP not succeeding
- be efficient, effective, timely, transparent, scientifically robust and reasonable
- have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced
- be informed by scientifically robust information and incorporate the precautionary principle in the absence of scientific certainty, and
- be conducted in a consistent and transparent manner.

Delivery components

The EEOP is proposed to be made up of two parts, incorporating a fixed, additional land-based delivery of the project's MNES and/or MSES offset, and an additional enhanced environmental outcome commitment reflecting the regional priorities identified in the EOPP. Part 1 and Part 2 (detailed below) should be mutually exclusive in their location (i.e. not collocated).

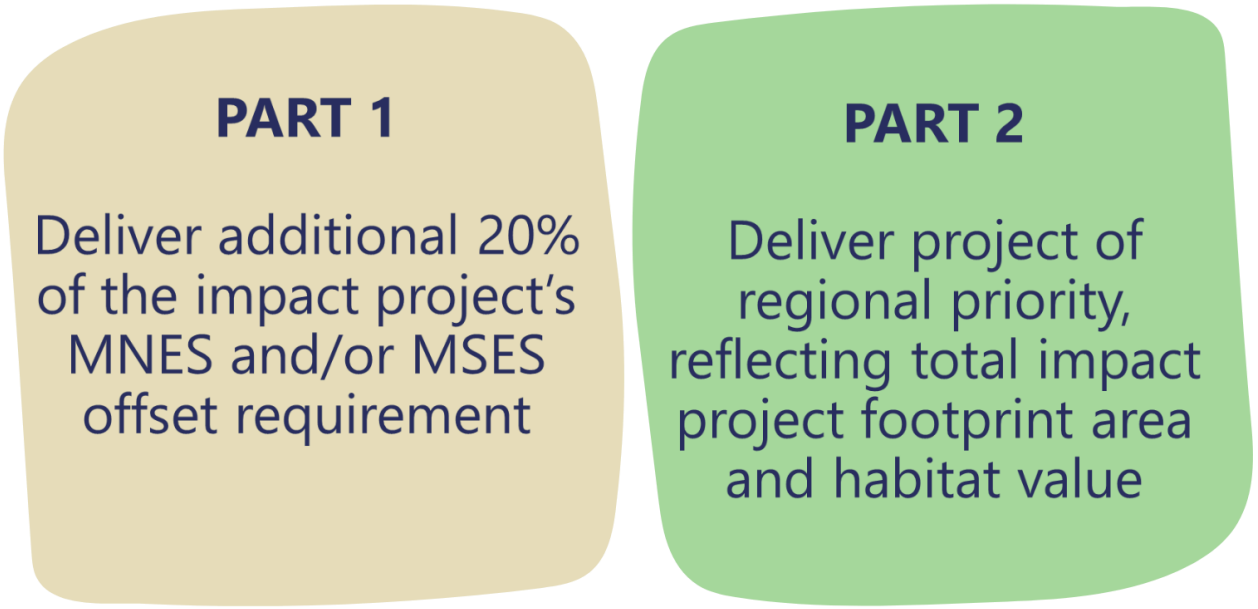


Figure 5: Delivery components of an Enhanced Environmental Outcome Project

Part 1: Deliver additional 20% of the impact project's MNES and/or MSES offset requirement

The outcome sought in Part 1 of the EEOP is to ensure delivery of a relative no net loss to relative net-positive outcome for a project's impacted matters (refer to Figure 1) through an additional 20% of the projects' MNES and/or MSES offset requirement.

Offset approaches that aim for relative no net loss or relative net positive effectively only counterbalance the loss of environmental values at the impact site, without considering broader conservation goals for biodiversity (Maron et al. 2025). Under the EPBC Act and Queensland Environmental Offset Policies offsets are required to '*improve or maintain*' and '*maintain the viability*' of the impacted matter, respectively, compared to BAU, that is what is likely to have happened if neither the development nor the offset had occurred (Maron 2017). In most cases, given the gain proposed to be achieved through the protection and maintenance of offsets is allowed to contribute towards counterbalancing a loss at the impact site, comparison of a relative no net loss or relative net positive outcome to an already declining baseline is likely to result in a continued decline in biodiversity values (Figure 1).

Although there is the potential to achieve absolute net gain through recreation or improvement in the condition of biodiversity at an offset site, the EPBC Act and Queensland Environmental Offset Policies still only require no net loss or net positive outcomes relative to the declining biodiversity status quo (Maron et al. 2025).

By increasing the quantum of offsets provided for a given MNES and/or MSES, the aim is to increase the likelihood that offsets do achieve their desired outcomes under the current policy settings and look towards shifting outcomes from relative to absolute net positive.

For offsets required to be secured for MNES impacts under an EPBC Act approval, the intent would be that an additional 20% land-based offset be secured on top of that required to acquit 100% of the Commonwealth offset requirement. This can be achieved by a proponent achieving 120% of an MNES impact's land-based offset requirement in accordance with the Commonwealth Government's Offsets Assessment Guide calculator. For offsets required to be secured for impacts on MSES, the

additional 20% may be delivered in accordance with the Queensland Governments Environmental Offsets Policy (DESI 2024b) as varied from time to time, namely delivery of either 120% of a land-based offset, or 120% of a required financial settlement determined using the Queensland Government Financial settlement offset calculator, or a combination of both[2].

Part 2: Deliver project of regional priority, equivalent to total project footprint area

The objective for Part 2 of the EEOP is to achieve an outcome beyond the relative no net loss to relative net-positive outcome sought in Part 1. While statutory offsets typically focus on threatened species, ecological communities, and regional ecosystems listed under State and Commonwealth legislation, they often overlook non-threatened values, Matters of Local Environmental Significance (MLES), and culturally significant species.

To address this gap, Part 2 of the EEOP aims to consider the whole-of-environment impact of a project. This includes restoration efforts that account for both threatened and non-threatened biodiversity and ecosystems, with the restoration commitment under Part 2 based on the entire footprint of the impact project, not just the area of significant residual impacts to MNES and MSES. Specifically, it considers:

- the total project impact area
- the ecological realms affected (refer to Section 4.1.1), and
- the relative ecological/habitat value of those areas.

Restoration ratios are assigned to these different areas based on the following consideration of two ecological/habitat value tiers:

- **Higher value habitat** – minimum 1:1 restoration-to-impact ratio, which includes:
  - Areas mapped as Category A, B, or C under the *Vegetation Management Act 1999* (Qld; VMA), and/or
  - Areas not mapped as Category A, B, or C but identified as supporting woody vegetation, reflecting >10% foliage projective cover (FPC) in the latest Statewide Landcover and Trees Study (SLATS) data
- **Lower value habitat** – minimum 0.5:1 restoration-to-impact ratio:
  - Defined as all remaining areas within the project footprint not meeting the criteria for higher value habitat.

This approach incentivises proponents to avoid and minimise impacts in high-value habitat areas by offering a lower restoration burden for development in lower value habitats.

[2] In the case of an offset requirement for impacts on koala habitat in the South-east Queensland, the EEOP Part 1 requirement can be delivered by establishing an additional 20% of non-juvenile koala habitat trees in accordance with the Queensland Governments Environmental Offsets Policy (DESI 2024b).

Case study

A proponent is establishing a renewable energy project on a 500 ha property, with a total impact project footprint of 200 ha (REF _Ref199928276 \h Figure 6). This project footprint comprises 180 ha of terrestrial realm impacts, with 20 ha of freshwater realm impacts (defined as some pre-defined buffer from a perennial watercourse).

Of the 180 ha of terrestrial realm impacts, 90 ha corresponds to high value habitat, with 90 ha corresponding to areas of low value habitat. Similarly, 20 ha of freshwater realm impacts correspond to 10 ha of high value habitat and 10 ha of low value habitat.

Considering the different realm and value habitats comprising the impact project footprint, a 150 ha restoration project should be considered for the Part 2 delivery component of the EEOP, comprising, at a minimum, the following:

- 135 ha of terrestrial realm restoration, corresponding to:
  - 1:1 ratio for the 90 ha high value habitat impact, and
  - 0.5:1 ratio for the 90 ha low value habitat impact
- 15 ha of freshwater realm restoration, corresponding to:
  - 1:1 ratio for the 10 ha high value habitat impact, and
  - 0.5:1 ratio for the 10 ha low value habitat impact.

Figure 6: Hypothetical example of an impact project footprint, delineating project realm and habitat value impacts to determine the EEOP Part 2 restoration.

A Part 2 EEOP should, where possible and relevant, result in the restoration of values identified in the EOPP and look to be established in consultation with an existing NRM or regional conservation group with consideration for the following criteria:

- occur in the same or adjacent subregion[3] (whether in the same or an adjacent bioregion) as the impact project
- incorporate restoration of the same Broad Vegetation Group/s (BVG) at the 1:2 million scale as the impacted area[4]
- enhance landscape connectivity, identified as targeted areas for restoration in any bioregional plan, Queensland Government Biodiversity Planning Assessment and/or the EOPP, and/or
- restore habitat for priority, target matters and/or projects identified in the EOPP, including habitat for culturally-significantly matters to First Nations peoples such as totemic species.

Unlike the Part 1 component of the EEOP, there is no option for acquitting the Part 2 component of the EEOP through a financial payment. Instead, the Part 2 component will need to be delivered as a land-based project.

EEOP outcomes

When considering a Part 2 EEOP, outcomes should align with the broad representation of the draft Universal State of Nature (SON) indicators developed under the Nature Positive Initiative (2025). These include projects aimed at improving:

- environmental condition,
- environmental extent, and/or
- species recovery.

Within the context of each realm and broad environmental outcomes, the proponent must also consider cultural heritage values, noting that these will often involve more than one outcome and realm. Cultural heritage includes generational traditional knowledge which has guided communities in managing natural resources in harmony with the environment. By integrating these traditions and practices into modern environmental initiatives, programs can benefit from centuries of wisdom and local knowledge in maintaining biodiversity and conserving landscapes, whilst ensuring that environmental efforts are inclusive and relevant to the people most affected by them. Along with integrating traditional knowledge into environmental efforts, environmental priorities of First Nations peoples should also be considered throughout the selection and implementation of an EEOP. For example, projects that focus on species-specific outcomes should consider culturally significant species such as totemic species alongside ecologically significant species.

Table 1 provides project examples relevant to each of these indicators in the context of each of the three environmental realms, noting this is not an extensive list and additional EEOP's may be developed by proponents.

[3] Referring to the Queensland Government's identification of 13 bioregions and associated subregions under the Vegetation Management Framework and other planning strategies rather than the Commonwealth's Interim Biogeographic Regionalisation for Australia (IBRA) Framework.
[4] Broad Vegetation Group (BVG) refers to higher-level grouping of vegetation communities, with those at the 1:2,000,000 scale referring to one of 35 vegetation groups at that scale. For the purposes of considering the relevant BVG for lower value habitat impacted areas, pre-clearing regional ecosystem mapping should be consulted to account for the likely vegetation or REs present before clearing where not possible to identify from field-based confirmation of regrowth/retained vegetation.

Table 1: Enhanced Environmental Outcome Project examples

Environmental outcomes	Project examples
Terrestrial realm	
Environmental extent	• Restoration of degraded terrestrial ecosystems • Connect habitat and provide strategic movement corridors
Environmental condition	• Reduce pollution • Invasive species control (flora and fauna)
Species recovery	• Species-specific recovery action • Species translocations • Support breeding habitat • Research project funding and involvement
Freshwater realm	
Environmental extent	• Restoration of degraded inland water ecosystems • Spatial prioritisation and connectivity (e.g. support species movement and genetic exchange)
Environmental condition	• Reduce anthropogenic threats (e.g. pollution) • Invasive pest control (e.g. flora, fauna, bacteria, algae)
Species recovery	• Protection of biodiverse habitats (e.g. ponds, rivers, wetlands) • Support breeding habitat • Research project funding and involvement
Marine (ocean) realm	
Environmental extent	• Restoration of degraded coastal and marine ecosystems (e.g. mangroves, coral reefs intertidal zones) • Expansion of Marine Protected Areas
Environmental condition	• Reduce anthropogenic threats (e.g. pollution) • Invasive pest control (e.g. flora, fauna, bacteria, algae)
Species recovery	• Species-specific recovery action • Species translocations (e.g. corals) • Support breeding habitat • Research project funding and involvement

4.1.4 Define the EEOP baseline and metrics

Baseline

An enhanced environmental outcome refers to an action or intervention that results in an improvement to the environment compared to an existing or baseline condition. Such an outcome should deliver improved conditions and benefits for nature. The baseline for the Part 1 EEOP will be guided by the offset framework defining the existing offset requirement on top of which the additional 20% of the project's MNES and MSES offset will be delivered. When considering the Part 2 EEOP,

stakeholder and community engagement is important as baseline data may already be available, or in development for many projects.

As discussed in Section 3.3 and shown in Figure 1, enhanced environmental outcomes can fall anywhere between 'relative net positive' (beyond a statutory offset obligation expectation) and 'nature positive' (aligning with global nature goals toward full recovery):

- Relative net positive – beyond expected delivery for any statutory offset requirement imposed as part of an approval of a development project (raising the requirement from just achieving a 'no net loss' outcome).
- Absolute net positive – the point at which the condition of nature is no longer in decline from a given time, however, may still be in a degraded state from a past baseline (e.g. 2020 or point-in-time for a given project).
- Nature positive – improvement in the state of nature relative to an agreed, past baseline (must be 2020 or earlier).

Therefore, whether to consider a point-in-time baseline for a project or a 2020 baseline for a Part 2 EEOP will depend on whether a nature positive outcome is proposed. **Note: Where an EEOP is proposed or mandated as part of an impact project, any nature-positive claim must consider both the project's impacts and the positive outcomes of the EEOP. If the project's impacts result in an irreplaceable loss of critical matters, achieving a nature-positive outcome is not feasible.**

Metrics

Tracking and reporting on the progress of any statutory obligation associated with a development approval condition requires a stringent monitoring and evaluation process. A similarly stringent process will be required to monitor and evaluate any proposed Part 2 EEOP. A number of monitoring methodologies are currently endorsed by the State and Commonwealth Government agencies for monitoring and evaluating progress in statutory offset obligations for biodiversity under the corresponding governments' environmental offset policies. It is anticipated that these same methodologies will be utilised to track the progress of any land-based Part 1 EEOP as it would likely be established and monitored concurrently with the project offset requirements.

For a Part 2 EEOP, the adoption of an EEOF lends itself to widening metrics and methodologies to consider nature more broadly, beyond just project-specific matters. The natural environment encompasses a wide variety of species, ecosystems and the complex interaction of the relationships and natural processes that they share between one another and their surroundings. Consequently, measuring nature is highly context-driven, dependent on which measures of nature a project proponent may wish to consider as part of a Part 2 EEOP. Given the complexity of the interaction between all aspects of nature, there is a notable lack of consensus on appropriate metrics to measure changes (improvements or otherwise) in nature.

At the 2024 United Nations Biodiversity Conference of the Parties to the UN Convention on Biological Diversity (COP 16) held in October 2024 in Cali, Columbia, two full days were dedicated to discussions around collaborating on a universal set of metrics (state of nature (SON) metrics), for measuring nature's recovery. Critical to the success of any Part 2 EEOP is a set of SON metrics to provide insights into the outcomes and performance of any EOPP initiatives.

The Nature Positive Initiative (2025) has identified important criteria for identifying a set of representative SON metrics. These criteria were developed to build consensus on a set of measurable indicators and metrics to define the state of nature and help bring measurability to the term 'nature

positive'. These same criteria could also be considered for generating a set of SON metrics for designing and tracking any Part 2 EEOP, and include:

- **Credible and science-based**, with viable datasets and a fully documented logic of how the metrics are calculated.
- **Responsive to change**, with a clear link between values of the metrics and the state of nature.
- **Flexible** to different types of data and a range of users to apply across different realms, and geographies.
- **Aligned with international standards and frameworks**, including the Taskforce on Nature-related Financial Disclosures (TNFD) and KMGBF; incentivising international collaboration and investment opportunities.
- **Accessible and affordable** for all users, regardless of their technical expertise or resources.
- **Auditable** and supported by empirical evidence or data that could be independently assured.

Within Queensland and more broadly within Australia, there are standardised, state-approved metrics available for numerous environmental indicators, for example, vegetation condition assessment frameworks such as the BioCondition Assessment methodology (Eyre *et al*. 2015), and river health assessment frameworks such as the Australian River Assessment System (AusRivAS; Parsons *et al.* 2002). Alternatively, there are also accredited monitoring methodologies established under the Accounting for Nature® Framework for terrestrial, freshwater and marine realms, covering vegetation, fauna, soils, water, ecosystem and microorganism environmental asset classes.

Selection of appropriate metrics may also depend on the availability of existing baseline data for the year 2020 (or prior) if the proponent wishes to align their Part 2 EEOP with Nature Positive outcomes.

4.1.5 Establish and maintain the Enhanced Environmental Outcome Project (EEOP)

Monitoring and evaluation

The Part 1 EEOP will be monitored and evaluated in accordance with the offset framework defining the existing offset requirement which it enhances. For the Part 2 EEOP, a repeatable monitoring program should be developed to evaluate the progress of the Part 2 EEOP to achieving the proposed outcomes against the approved baseline condition. The monitoring program should also be able to assess whether the management of the Part 2 EEOP is being undertaken effectively to achieve the proposed outcomes, in addition to identifying the need for any adaptive management requirements.

Depending on the proposed methodology utilised to calculate the 'condition' of specific Part 2 EEOP matters, an appropriate, minimum gain in condition should be established and justified for the project from which ongoing monitoring and management will be conditioned to achieve over the life of the project. Section 3.4 of the QEOP (DESI 2024b) stipulates, in relation to the provision of land-based offsets, that "a minimum 2-point gain in condition (out of 10) is required…. As measured using the relevant condition assessment methodology." A minimum 2-point gain in condition can likewise be conditioned to be attained and maintained for the life of the EEOP (20 years). This two-point gain (/10) can be conditioned, allowing flexibility for using methodologies such as the Queensland Government's BioCondition Assessment Methodology, AusRivAS or other State- or

Commonwealth-endorsed methods, as well as accredited methodologies for terrestrial, freshwater and/or marine asset classes under the Accounting for Nature® Framework.

Reporting and communication

Critical to the success of any EEOP is the requirement for appropriate reporting and communication of outcomes. This involves:

- clear reporting structure and predetermined frequency,
- transparency, integrity and auditing of data and reports,
- measurable, repeatable, enforceable methods, and
- adaptive management, updates and continuous improvement.

Delivery of an outcome for the Part 1 component of the EEOP delivered as a land-based offset can be assigned to the same condition methodology, reporting and outcome mandated for the MNES and/or MSES offset approval obligation. Reporting demonstrating the progress of the Part 1 EEOP can be provided, referring to any Offset Management Plan required under an Offset Delivery Plan (MSES[5]) or relevant Offset Area Management Plan (MNES) under an EPBC Act approval.

Delivery of an outcome for the Part 2 EEOP delivered as a land-based offset should include at least the following:

- EEOP Delivery Plan – proponents should develop a plan outlining how the Part 2 component of the EEOP will be delivered, including timelines, outcomes and responsible parties
- Monitoring Report – detailing outcomes of seasonal (typically bi-annual) monitoring events addressing survey requirements specified in the EEOP Delivery Plan
- Annual Report – proponents must provide annual reports detailing the status of the Part 2 EEOP and progress towards outcomes specified in the EEOP Delivery Plan, including any challenges encountered and corrective actions taken
- Final Report – upon completion of the Part 2 EEOP, a final report must be supplied, summarising the outcomes and confirming that all obligations were met. Projects under Part 2 EEOP should be monitored and managed for a minimum of 20 years, with the intent that funding will accommodate in-perpetuity management and monitoring (refer to Section 4.2).

4.2 Funding and regulation

The EEOF does not support payment for a Part 2 EEOP into a fund in lieu of a land-based, active management activity. This is largely on account of repeated, recognised shortfalls of current financial offset schemes around Australia.

Instead, the intent is for a proponent to directly establish and/or fund a Part 2 EEOP. Financing a Part 2 EEOP is the responsibility of the project proponent, however government grants and other investment options are accessible, and will depend on the location and type of the project designed. To accommodate funding an EEOP in perpetuity, the proponent should consider depositing funds into a trust, ideally to be established and administered by the Queensland government or an independent steering committee.

[5] Or evidence of additional 20% payment where financial settlement is delivered for MSES

4.2.1 Financial considerations for implementation of a Part 2 EEOP

The proponent should consider the financial inputs for the Part 2 EEOP. Below is a general guide for considerations for the implementation of a Part 2 EEOP:

- Initial assessment and planning costs
  - Cost of site assessments, environmental surveys, and baselines studies to understand the scope of the project
  - Consulting fees for experts (ecologists, environmental scientists, cultural heritage advisors, Traditional Owners, etc.) who can provide specialised guidance
  - Costs associated with obtaining necessary permits and complying with local, national, or international regulations
  - Community and stakeholder consultation or involvement, including meetings and public awareness campaigns
- Design and strategy development
  - The cost of designing the EEOP plan, including ecological design (e.g. restoration and revegetation plans, invasive species eradication programs, etc.)
- Materials and supplies
  - Costs of materials, equipment and tools (e.g. native plants, soil preparation, etc.)
  - Site preparation and infrastructure costs
  - Land acquisition costs if required (e.g. for environmental planting projects)
- Labour costs
  - Skilled labour (salaries or fees for professional such as ecologists and environmental, technicians and operational personnel)
  - Training costs for workers or community members
  - Monitoring and data collection, including equipment and technology needed for long-term environmental monitoring such as water quality testing and animal tracking
- Maintenance, monitoring and evaluation costs
  - Ongoing maintenance and repairs of equipment, surveys, and assessments to ensure the success of the project and satisfy periodic reporting requirements
- Insurance and risk management
  - Cost for identifying potential risks and planning for unanticipated challenges (e.g. extreme weather, plant survival, structural failures)
- Public awareness and outreach
  - Educational campaigns, signage and displays
- Administration and project management
  - Project coordination including costs for administration work such as communication, reporting, or managing contracts
  - Funding and grant management
- Long-term monitoring and evaluation

- Continued assessments and adaptive management, including data collection, analysis and reporting
- Legal security of an offset area, including administrative costs

4.2.2 EEOP protection

Protection of a Part 1 EEOP will be protected by the same mechanism as the balance of the offset area upon which the additional 20% requirement is conditioned. For a Part 2 EEOP, considerations should be made for a suitable long term protection mechanism and/or funding to ensure the long-term viability of the project and deliver an overall conservation outcome. A Part 2 EEOP should be managed, monitored, funded and protected (if deemed suitable) for a minimum of 20 years.

Examples of legally binding mechanisms that are applicable under both the QEOP (DESI 2024b) and EPBC Act Environmental Offsets Policy (DSEWPC 2012) include the following:

- Voluntary Declaration under the *Vegetation Management Act 1999*
- Statutory covenant under the *Nature Conservation Act 1992*
- Nature Refuge under the *Nature Conservation Act 1992*
- Trust of Environmental Stewardship arrangement

The suitability of a legally binding mechanism will be subject to the tenure of the project, realm, location and environmental values.

4.2.3 Regulation

The ultimate intent of the EEOF is for it to be statutorily mandated as part of all major renewable energy projects in Queensland.

It is anticipated that the requirement for the adoption of the EEOF, including delivery of an EOPP and Part 1 and Part 2 EEOP components will need to be considered by the State, for example through Terms of Reference when a project is subject to an Environmental Impact Statement (EIS) under the *Environmental Protection Act 1994* (Qld) and/or when designated a coordinated project under the *State Development and Public Works Organisation Act 1971* (Qld). It is envisaged that the requirement to adopt the EEOF can be conditioned (if/when approved) by the State Assessment and Referral Agency (SARA) and/or the Office of the Coordinator-General (OCG).

Part 1 EEOP component

Where delivered as a land-based offset, a condition can be imposed mandating the requirement to address the Part 1 component of the EEOP to provide 120% of the offset requirement for MSES and MNES. The additional 20% MSES requirement can be met by providing 120% of the area required under the land-based offset multiplier calculator for the MSES impacts or 120% of the calculated financial settlement for the MSES impact. This can be delivered as part of an Offset Delivery Plan under the QEOP.

As the EEOF is a Queensland initiative, it is considered unlikely that the Commonwealth Government will condition the Part 1 EEOP requirement as part of any statutory approval condition. Instead, the additional 20% land-based offset can be met by demonstrating that an offset area is securing 120% of the offset area obligation in accordance with the Offsets Assessment Guide for MNES required to be offset. As with the Part 1 EEOP component relating to MSES, it is anticipated that the MNES requirement can be conditioned by the State through SARA and/or the OCG.

Part 2 EEOP component

As a Part 2 EEOP will ideally be statutorily mandated by the Queensland Government, it can be conditioned by SARA or the OCG. This includes mandating the requirement to develop an EOPP in accordance with the current EEOF to identify candidate Part 2 EEOP. Mandating of this process can be conditioned by the State Assessment and Referral Agency (SARA) and/or the Office of the Coordinator-General (OCG).

Table 2: Example Part 2 Enhanced Environmental Outcome Project suggestions and metrics

Region specific environmental outcomes/ priorities	Project examples	Monitoring metrics
Terrestrial realm		
Environmental extent • Biodiversity protection and habitat conservation • Restoration and recovery of threatened species	• Increase extent of habitat connectivity for koala, and greater glider through environmental plantings, prioritising SEAs and Regional Biodiversity Corridors • Protect and enhance national parks including buffers and restoration	• BioCondition assessment, assessing vegetation species richness, structure and function of an ecosystem • Accounting for Nature® framework and methodologies – native vegetation and/or fauna assets
Environmental condition • Invasive species control (flora and fauna)	• Invasive plant species control (e.g., cat's claw creeper [*Macfadyena unguis-cati*]) • Convert State Forests to National Parks (Yabba, Squirrel, Diaper, Elgin Vale, Jimna or Imbil State Forests) • Provide funds to buy-out and compensate forestry licence holders and grazing lease holders in the above identified State Forests and end logging and grazing. • Provide financial incentives to landholders to protect and enhance riparian vegetation by fencing riparian areas, establishing off-stream water points, and removing invasive plant species • Establish pest control programs for foxes and pigs • Minimise the effects of wild fire on critical habitat and other environmental values by funding cultural burning practices in collaboration with First Nation people	• Measure of relative pest animal activity (e.g. Catling index) • Measure of pest animal population abundance
Species recovery	• Reduce extent of fragmentation of retained vegetation by increasing extent and connectivity and reducing edge effects through environmental plantings • Funding vets and facilities specialising in native wildlife • Provide funds to protect and restore wild macadamias	• Measure of flora and fauna species richness and diversity • Measure of threatened species population abundance

Region specific environmental outcomes/ priorities	Project examples	Monitoring metrics
Freshwater realm		
Environmental extent • Biodiversity protection and habitat conservation • Restoration and recovery of threatened species	• Riparian and streambank restoration (e.g. Yabba Creek riparian habitat and Myrtle Creek and Mary River main trunk), improving habitat for threatened freshwater species	• BioCondition assessment, assessing vegetation species richness, structure and function of an ecosystem • AfN framework and methodologies – native vegetation and/or fauna assets
Environmental condition • Water quality and management • Greater Barrier Reef water quality targets	• Streambank remediation • Catchment pollutant treatment systems • Reduction in pesticide use - engaging local communities and land managers in agricultural land and catchment management • Reduce sediment, dissolved inorganic nitrogen, other nutrients and pesticides at end-of-catchment • Control tilapia (*Oreochromis* and *Tilapia* sp.)	• AusRivAS • Physico-chemical indicators and biological indicators • Refer to the *Reef 2050 Water Quality Improvement Plan* (State of Queensland 2018)

Species recovery	• Improve riparian habitat condition (active management and/or restoration) facilitating population increases in aquatic species
	• Enhance connectivity and mobility for native species by:
	  ○ funding the removal of inefficient and redundant in-stream flow barriers
	  ○ installing fish and turtle passage device
	  ○ ensure low flow regimes to maintain waterholes and other critical in/off stream refugia
	• Establish breeding programs for threatened freshwater species
		• BioCondition assessment
		  ○ Vegetation species richness, structure and function of an ecosystem
		• Measure of aquatic flora and fauna species richness and diversity
		• Measure of threatened species population abundance

Region specific environmental outcomes/ priorities	Project examples	Monitoring metrics
	• Provide funds to identify waterholes that provide critical refugia for flow dependent species during low flow periods • Provide funding into genetic profiling of threatened freshwater species	
Marine realm		
Environmental extent • Biodiversity protection and habitat conservation • Restoration and recovery of threatened species	• Protect and enhance seagrass extent	• Seagrass report card framework (Carter et al 2023)
Environmental condition • Water quality and management • Greater Barrier Reef water quality targets	• Promote restoration projects that address land and catchment management targets and water quality targets identified in the *Reef 2050 Water Quality Improvement Plan* (State of Queensland 2018)	• Refer to the *Reef 2050 Water Quality Improvement Plan* (State of Queensland 2018)

5 Next steps and recommendations

The Enhanced Environmental Outcome Framework (EEOF) represents a strategic and practical guide, developed to improve environmental outcomes associated with large-scale renewable energy projects in Queensland—particularly those that are likely to trigger statutory offset requirements.

The EEOF has been designed to go beyond business-as-usual environmental offsets by delivering measurable, additional conservation outcomes. It aims to support Queensland's transition to renewable energy while ensuring that nature is not only protected but actively restored and enhanced. In order to implement the EEOF, this section outlines a set of next steps and recommendations:

- **Clarify regulatory integration:** Engage with the State Assessment and Referral Agency (SARA) and the Office of the Coordinator-General (OCG) to explore how EEOF requirements can be embedded in Environmental Impact Statements (EIS) and approval conditions. Drafting example conditions for both Part 1 and Part 2 EEOPs will support consistent application.
- **Secure funding and governance models:** Identify long-term funding mechanisms such as environmental trusts or stewardship agreements to ensure EEOPs are financially sustainable. Establish governance structures involving proponents, Traditional Owners, and regional partners to oversee delivery and adaptive management. This may involve joint state/federal funding arrangements as a pilot of this framework for critical energy transition infrastructure.
- **Establish baselines and metrics:** Define ecological baselines and select appropriate monitoring methodologies (e.g. BioCondition, AusRivAS, Accounting for Nature®). This is essential for measuring the effectiveness of Part 2 EEOPs and determining whether outcomes are achieving relative or absolute net positive gains—or even nature positive outcomes.
- **Align with planning and policy instruments:** Advocate for the integration of EEOF principles and EOPP into regional plans, local planning schemes, and bioregional planning pilots. This will help institutionalise the framework and ensure it complements broader land use and conservation strategies.
- **Pilot the EEOF through a large scale renewable energy project:** Use a large scale renewable energy project, such as the Borumba Pumped Hydro Project as a flagship case study to demonstrate how the EEOF can be applied in practice. Documenting lessons learned will help refine the framework and build confidence among regulators, proponents, and stakeholders.
- **Embed cultural values and First Nations leadership:** Ensure Traditional Owner groups are engaged throughout the EEOP lifecycle—from planning to monitoring. Incorporate cultural indicators, totemic species, and traditional ecological knowledge to strengthen outcomes and support cultural heritage protection.
- **Promote the framework and its benefits:** Develop communication materials to explain the EEOF's purpose, structure, and benefits to proponents, regulators, and the public. Emphasise how the framework supports nature positive outcomes, climate resilience, and community co-benefits, helping to build support and uptake

By implementing the recommendations outlined in this EEOF, Queensland can lead the way in delivering measurable, long-term environmental gains alongside renewable energy development. The EEOF provides a practical, science-based and culturally inclusive pathway to achieve improved environmental outcomes and restore ecological integrity across the state.

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