



*The Ecological Society of Australia Ltd (ESA, [www.ecolsoc.org.au](http://www.ecolsoc.org.au)) is the peak group of ecologists in Australia, with over 1200 members from all states and territories. Our members work in universities and other research institutions, government departments, NGOs, private industry and consultancies. We are a national not-for-profit organisation formed in 1959.*

## 1. SUMMARY

### **The ESA welcomes the publication of the Interim Report from the statutory review of the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*.**

The EPBC Act is intended to protect and conserve Australia's most important environmental and heritage assets. The Interim Report, led by Professor Graeme Samuel, found that Australia's current environmental trajectory is "unsustainable", that our environmental laws are "ineffective and inefficient", and that a "quantum shift" is required in the quality and accessibility of information available for environmental decision making.

The Interim Report makes many important recommendations to improve environmental regulation and protection (Table 1). **Despite many useful recommendations, the ESA believes that reforms detailed in the Interim Report will not be enough to protect Australia's environment from ongoing threats and declines.**

Critically, the Interim Report focuses on development, and implies that the main goal of the EPBC Act is to enable 'ecologically sustainable development'. The primary objectives of the EPBC Act are to protect the environment and conserve biodiversity, not to enable development. The ecological community of practice in Australia is concerned by the focus of the Interim report on the perceived 'costs' of environmental regulation for industry and not on the 'costs' of development for preserving biodiversity and ecosystem services. Key among the objects of the Act is to protect and conserve Australia's environment, and the sole focus of any review of the Act should be to enhance the Act's ability to achieve this purpose.

The ESA therefore recommend that the final report:

1. Retain and reinforce the role of an independent agency for monitoring and enforcing compliance with National Standards.
2. Explicitly acknowledge the risks to biodiversity that will arise by transferring responsibility for development assessments to States and Territories without an independent environmental watchdog to uphold national standards.
3. Provide recommended timeframes for implementation of components of the plan, and highlight risks when timing is misaligned. This would include addressing risks of immediate implementation of a State-based assessment and approvals process, in the absence of well formulated National Standards, or defined critical habitats.
4. Require new MNES that include a new climate trigger, which includes the requirement for proponents to explicitly consider the cumulative impacts of their actions under specific climate change scenarios and transparently disclose the full emissions profile of the development.

Other responses to recommendations of the Interim Report are outlined below.

## 2. ESA RESPONSE TO RECOMMENDATIONS OF THE INTERIM REPORT

| What the Interim Report recommends:                                                                                                                                                                                                                                                                                                                                                                                       | ESA’s position (as stated in our submission to the Review):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ESA’s response to recommendation: |
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| <p><b>National Standards</b><br/>New, legally enforceable National Environmental Standards to ensure transparent, measurable decisions about the environment</p>                                                                                                                                                                                                                                                          | <p>We support clear, science-based national environmental standards for monitoring, evaluation and data for assessments and referrals (Sparrow et al. 2019). Development of standards can draw from existing examples such as the Great Barrier Reef water quality guidelines and the national standards for ecological restoration (Great Barrier Reef Marine Park Authority 2010, Standards Reference Group 2018).</p>                                                                                                                                                                                                                                                                                                                                                          | <p><b>Support</b></p>             |
| <p><b>Improved Monitoring</b><br/>The Act should include a transparent assurance framework that comprises “requirements for regular monitoring and reporting, and periodic review and amendment as required, so that Standards remain contemporary and effectively deliver environmental outcomes”</p>                                                                                                                    | <p><b>“Specify a requirement in the Act for monitoring and evaluation”</b><br/>We support mandated monitoring and reporting for all matters of national environmental significance (MNES) and Act-related activities, so that decisions about the environment can be made with the best available information. Inadequate monitoring data for MNES, recovery and compliance actions, limits our ability to track progress and interferes with our ability to apply effective policy and management (Lindenmayer et al. 2015, 2017, Legge et al. 2018, Sparrow et al. 2019).</p>                                                                                                                                                                                                   | <p><b>Support</b></p>             |
| <p><b>Resources for monitoring and compliance</b><br/>Available resources for monitoring, compliance, enforcement and assurance constrain the ability of the Department to deliver credible functions. These functions must be adequately resourced, and resources sustained over the long-term.</p>                                                                                                                      | <p><b>Adequate funding across all levels of the Act is needed to improve its efficiency and effectiveness.</b><br/>We support “adequate resourcing to enable improved support services to translate, understand, and implement the legislation of the Act across all sectors.”</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p><b>Support</b></p>             |
| <p><b>Investment in data stewardship and coordination</b><br/>Significant upfront investment is required to deliver the substantial improvement in the information supply chain, and ongoing investment will be required to maintain the system over time. Legislative changes could embed expectations for data collection and sharing in the EPBC Act. Responsibility for coordinating, planning and delivering the</p> | <p>We support “increased investment into national biodiversity data aggregation and analysis facilities to build reliable, comprehensive and publicly available environmental information systems that map, monitor, forecast and report on environmental conditions and the state of MNES”. Data sharing should be a legislative requirement for Act-referred processes, Act -listed threatened species and recovery plans. The inadequacy of data collation in Australia (Legge et al. 2018) means that it is difficult to know if Act-related actions are achieving their goals. A national integrated data system is best coordinated through an independent national environmental authority, in cooperation with State and Territory environmental management agencies.</p> | <p><b>Support</b></p>             |

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| <p>supply chain should be assigned to a national institution—a custodian of the national environmental information supply chain.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                   |
| <p><b>Critical Habitat</b><br/>The critical habitat register is incomplete and critical habitat “should be identified and listed over time”. Offsets need to include a greater focus on restoration and should be enshrined in the law. The proposed Interim National Environmental Standard for MNES includes “No detrimental change to the listed critical habitat of a species or ecological community”.</p>                                                                                                                                                                            | <p>Australia has not listed any critical habitat for the protection of threatened species on the federal critical habitat register for more than a decade. In the USA, species with mapped critical habitat are more likely to recover than those without mapped habitat (Taylor et al. 2005). Identification of critical habitat should be required in Recovery Plans to trigger mechanisms designed to protect these areas on all land tenures, including mechanisms to protect these places from harm, so that habitat loss does not worsen threats to already threatened species. For a single threatened species, the endangered Black-throated finch <i>Poephila cincta cincta</i>, over 700 projects destroying habitat have been approved (Reside et al. 2019). New processes need to be implemented to assess and designate critical habitat to deal with future events such as the unprecedented bushfires of 2019-2020 (Fitzsimons 2020).</p> | <p><b>Support, but urge immediate action to identify critical habitat for all listed species using existing data and modelling; this must be done before States and Territories can begin to implement national standards</b></p> |
| <p><b>Indigenous Engagement</b><br/>The Act “is not fulfilling its objectives as they relate to the role of Indigenous Australians in protecting and conserving biodiversity and heritage, and promoting the respectful use of their knowledge”. Indigenous people and Indigenous Knowledge should be better integrated in environmental decision making, including co-design of reforms, national standards for indigenous engagement in, and considering Indigenous Knowledge and western science on an equal footing in the provision of formal advice to the Environment Minister.</p> | <p>The Act should explicitly address the role of traditional owners and traditional knowledge systems in relation to assessment processes and species recovery. The objects of the Act should be written in such a way as to ensure that Indigenous people are involved in decision-making that affects management and use of their country, history and culture. We recommend that Indigenous people are properly engaged with Act-related processes through “Right-Way” traditional engagement and “free, prior and informed” consent. A targeted review into how the Act can better reflect Indigenous people, knowledge and country is a necessary step towards achieving this goal (Ens et al. 2012, 2014, 2015).</p>                                                                                                                                                                                                                               | <p><b>Support</b></p>                                                                                                                                                                                                             |
| <p><b>Offsets overhauled</b><br/>Offsets policy must be reviewed and replaced, as offsets do not currently offset impacts of developments. “The EPBC Act should consider biodiversity offsets as a last resort, only “when</p>                                                                                                                                                                                                                                                                                                                                                             | <p>A rigorous application of the mitigation hierarchy (‘avoid, minimise, and only then offset’) is an essential first step in improving the current system of environmental offsetting under the Act. This requires the integration of clear and specific guidance on mitigation at project inception, with an emphasis on the avoidance and minimisation steps in the mitigation hierarchy (Hawden et al. 2015,</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p><b>Support</b></p>                                                                                                                                                                                                             |

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| options to avoid and mitigate impacts have been demonstrably exhausted”                                                                                                                                                                                                                                                   | Fitzsimons et al. 2012, Maron et al. 2016, Environmental Offsets 2014, Peterson et al. 2018).                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                |
| <b>Regional Recovery Planning</b><br>Adaptive regional planning approaches such as regional recovery planning and strategic assessments should provide for coordinated management of threats to listed species and communities in a region.                                                                               | In many contexts, strategic approaches such as science-based bioregional assessments and planning will “prioritise areas for enhancing conservation across the landscape by dealing with multiple MNES and cumulative biodiversity impacts” (Whitehead et al. 2017). Regional planning allows for assessments to be more comprehensive and representative, and reduces the administrative burden of site-by-site (and species-by-species) assessments.                                                                                                                    | <b>Regional plans should not replace species and ecological community plans, but should be a pathway for informing decisions when multiple MNES co-occur</b>                                                                   |
| <b>Restoration</b><br>Environmental restoration is required to enable future development to be sustainable. A biodiversity restoration market should frame the approach to offset reforms                                                                                                                                 | Restoration is a necessary component of the EPBC Act, given the extent of degradation of Australia’s biodiversity (species and habitat loss and threats to continued existence). Restoration and subsequent protection and maintenance of restored areas (Maggini et al. 2013) is the only way to recover many threatened species at risk of extinction. Innovative funding mechanisms could include establishing an ongoing Biodiversity Restoration Fund.                                                                                                               | <b>Support, contingent on adequate investment in both protective and restorative mechanisms, as avoiding environmental degradation is a better environmental outcome and more efficient use of resources than restoration.</b> |
| <b>Independent regulator</b><br>An independent compliance and enforcement regulator that is not subject to actual or implied direction from the Commonwealth Minister should be established. The regulator should be properly resourced and responsible for monitoring compliance, enforcement, monitoring and assurance. | We support “Provision for an independent statutory body assessing, considering approvals of, monitoring compliance with, and enforcing nationally agreed standards.” This is a much broader mandate than the independent regulator proposed in the Interim Report Independent, science-based decision-making through the establishment of, for example, a National Sustainability Commission and a National Environmental Protection Authority with Indigenous representation, could ensure more efficient and effective biodiversity conservation at the national level. | <b>Support, contingent on an independent process for assessing and considering approvals in addition to compliance</b>                                                                                                         |
| <b>Devolved decision-making</b><br>Devolve Commonwealth functions to other jurisdictions, where they demonstrate National Environmental Standards can be met.                                                                                                                                                             | The Commonwealth has ultimate responsibility to achieve the National Standards, meet international obligations and be accountable to the Australian public. State-controlled environmental regulation would allow differences in approaches across jurisdictions. Shifting national accountability, national and international responsibilities to the States is likely to harm the environment.                                                                                                                                                                          | <b>Reject.</b> The proposed independent regulator is a good solution to facilitate reduced duplication in development assessment while also ensuring Federal Government oversight and responsibility.                          |
| <b>Resourcing reforms for data systems but no mandated resourcing of recovery plans</b>                                                                                                                                                                                                                                   | We support legislative requirements for resourcing recovery planning and recovery actions for all MNES. Resources for managing biodiversity and for limiting the impact of key pressures are inadequate to arrest the declining status of many species (State of the Environment 2016). In the USA, species with                                                                                                                                                                                                                                                          | <b>The Act should mandate resourcing of recovery planning for all MNES</b>                                                                                                                                                     |

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|                                                                                                                                                                                                                          | recovery plans are more likely to recover than species without recovery plans, most likely due to the additional requirement of such recovery being adequately resourced (Taylor et al. 2005). Well-designed recovery planning and associated management interventions lead to restoration of ecosystems (Batson et al. 2016). For example, threatened mammals in fenced reserves completely excluding invasive predators have increased over the past 15 years whilst inadequately resourced populations outside reserves continued to decline ( <a href="http://www.tsx.org.au">www.tsx.org.au</a> ) |                                                                                                                                                                                                                              |
| <p><b>Watering down the water trigger</b></p> <p>The water trigger should be limited to consideration of any project that risks <i>irreversible depletion or contamination</i> of cross-border water resources only.</p> | The 2013 EPBC Act “water trigger” amendment to add water resources to the list of MNES, was legislated as a result of increasing scientific evidence (Carmody 2016) on the negative impacts of Coal Seam Gas (CSG) and large coal projects on water resources, in particular groundwater (Pells and Pells 2012, Sydney Catchment Authority 2012, Varma and Michael 2012).                                                                                                                                                                                                                              | <p><b>Reject.</b></p> <p>Unregulated water drawdown and contamination from mines is likely degrading Australia’s water resources and groundwater-dependent communities (Fensham et al 2010).</p>                             |
| <p><b>No climate trigger</b></p> <p>The Interim Report rejects proposals to broaden the MNES dealt with in the EPBC Act, and specifically rejects the need for a “climate trigger”.</p>                                  | We recommend a “trigger to ensure that climate change impacts are embedded in strategic planning and that high-emission projects have their impacts thoroughly assessed against international climate goals and national commitments”. We also recommend a trigger to identify and protect climate refugia.                                                                                                                                                                                                                                                                                            | <p><b>Reject</b></p> <p>Without a specific climate trigger and identification of climate refugia, recovery actions and planning will be ineffective due to cumulative impacts and unforeseen changes in the environment.</p> |

### 3. DISCUSSION

The ESA supports many of the recommendations of the Interim Report (Table 1), in particular the proposal for legally enforceable National Environmental Standards that will be the foundation of the Act's reform, acting as regulatory instruments to ensure transparent, measurable decisions about the environment. The Interim Report acknowledges the lack of regulations that mandate monitoring of offsets and the lack of a national offsets register, and recommends review and replacement of Australia's offsets policy, which in its current form "delivers little other than weak protection of remnant habitats of MNES [matters of national environmental significance] that may have never been at risk of development".

The Interim Report makes an important recommendation for critical habitat to be defined for all threatened species and communities, although this recommendation is currently hidden in the details of the proposed National Environmental Standard for threatened species and ecological communities. Including critical habitat in the National Environmental Standard will address the current knowledge gaps that impede effective and informed decision-making for environmental impact assessments and extinction risk assessments. Identifying critical habitat enables conservation actions to be directed to the most important locations for the persistence and recovery of flora and fauna.

The ESA welcomes the proposal by the Interim Report to focus on environmental restoration, particularly in relation to offsetting, resulting in habitat growing rather than declining. The EPBC Act does not currently facilitate the restoration of the environment. The recommendations include establishing a mechanism that leverages investment to deliver large-scale restoration and thereby "enable future development to be sustainable."

**Despite many useful recommendations, the ESA believes that reforms detailed in the Interim Report will not be enough to protect Australia's environment from ongoing threats and declines.**

Critically, the Interim Report focuses on development, and implies that the main goal of the EPBC Act is to enable 'ecologically sustainable development'. The primary objectives of the EPBC Act are to protect the environment and conserve biodiversity, not to enable development. The ecological community of practice in Australia is concerned by the focus of the Interim report on the perceived 'costs' of environmental regulation for industry and not on the 'costs' of development for preserving biodiversity and ecosystem services. Key among the objects of the Act is to protect and conserve Australia's environment, and the sole focus of any review of the Act should be to enhance the Act's ability to achieve this purpose.

The proposal to devolve decision-making for Commonwealth functions to the States and Territories is concerning. Even in the presence of National Standards, devolution of Commonwealth responsibilities is likely to lead to highly variable environmental outcomes. Regulation at the State and Territory level can only achieve improved conservation outcomes if it is regulated by an independent watchdog. Without that independent regulator, transferring development assessment, and crucially, decision-making power about approving and conditioning actions, to the States and Territories will likely worsen outcomes for biodiversity.

While the Interim Report emphasises adequate funding to resource the reforms, a major weakness that remains is that recovery plans for MNES are not funded, and this will prevent the attainment of positive environmental outcomes. Evidence from the USA shows that funding

recovery plans works to prevent species loss. Australia has the worst record of mammal extinctions on the planet, with a steady rate of extinction right up to the present day. Recovery plans for threatened species need adequate, ongoing funding or the Act will continue to preside over ongoing biodiversity loss.

The Interim Report also proposes modifying the water trigger, which requires the referral and approval of coal seam gas and large coal mining projects that are likely to have significant impacts on water resources. Unregulated water drawdown and contamination from mines is likely to degrade Australia's water resources and groundwater-dependent communities, such as the nationally endangered Great Artesian Basin springs, where future demands for groundwater are likely to be "considerable" (Fensham et al. 2010). The requirement that only "irreversible" depletion or contamination of water resources raises a critical issue – what is "irreversible" damage to groundwater? As ecologists, we are aware that few changes to the environment are truly "irreversible" – this provision opens the door for any proponent to claim their water depletion is "reversible" as long as we wait long enough for recharge to occur, which can take thousands of years. Moreover, this does not accord with the definition of the precautionary principle, which is defined in s3A(b) of the EPBC Act: *if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.*

If vastly upscaled in its coverage (number of species/ecological communities AND geographic extent covered)--a necessity given the recognised trajectory of biodiversity--protection of critical habitat (including broadening the scope for which it is an offence to damage Critical Habitat beyond solely Commonwealth land) stands to make a major contribution towards reversing biodiversity loss in Australia. Before National Standards can reasonably be implemented, critical habitat for all listed species and ecosystems must be identified. There is a long way to go before this is achieved given the incompleteness of the Public Register of Critical Habitat. Therefore, while National Standards are being developed, an urgent priority is to undertake modelling that can be used to define critical habitat based on current data on species occurrence. Species distributions models, such as used in the Victorian Nature Kit tool (<https://www.environment.vic.gov.au/biodiversity/naturekit>), provide a good example of how this could be done in combination with expert knowledge. Given likely model uncertainty, the precautionary principle should apply to deciding cut-offs for critical habitat, and cut-offs could be related to threat classification. For example, a critically endangered species that is threatened by habitat loss should have critical habitat defined as habitat even with a low probability of occurrence, while critical habitat for vulnerable species might be set at a more stringent level with high probability of occurrence. This would provide a rapid way to identify critical habitat in the short term, with refinement over time feasible if recovery plans are funded to allow improved definition and mapping of critical habitat.

The EPBC Act is Australia's premier piece of environmental legislation. The capability to list and protect biodiversity from harm is the cornerstone of the Act. Any proposed reforms to water down such regulation will only harm, not help, our environment. The ESA therefore recommend that the final report:

1. Retain and reinforce the role of an independent agency for monitoring and enforcing compliance with National Standards.

2. Explicitly acknowledge the risks to biodiversity that will arise by transferring responsibility for development assessments to States and Territories without an independent environmental watchdog to uphold national standards.
3. Provide recommended timeframes for implementation of components of the plan, and highlight risks when timing is misaligned. This would include addressing risks of immediate implementation of a State-based assessment and approvals process, in the absence of well formulated National Standards, or defined critical habitats.
4. Require new MNES that include a new climate trigger, which includes the requirement for proponents to explicitly consider the cumulative impacts of their actions under specific climate change scenarios and transparently disclose the full emissions profile of the development.

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