

15 September 2020

Professor Graeme Samuel AC
Independent reviewer EPBC Act
GPO Box 787
Canberra ACT 2601
Australia

Via email:

Dear Professor Samuel

Re: Submission to Independent review of the EPBC Act interim report

The National Farmers' Federation (NFF) welcomes the opportunity to provide a submission to the independent review of the EPBC Act Interim report.

Should you require any further information, please contact Warwick Ragg, General Manager Natural Resource Management, on 02 6269 5666 or wragg@nff.org.au.

Yours sincerely

TONY MAHAR
Chief Executive Officer



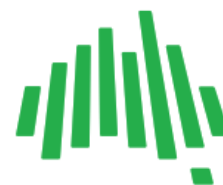
National Farmers' Federation

Submission to the Independent review of the EPBC Act interim report

15 September 2020

NFF Member Organisations





The National Farmers' Federation (NFF) is the voice of Australian farmers.

The NFF was established in 1979 as the national peak body representing farmers and more broadly, agriculture across Australia. The NFF's membership comprises all of Australia's major agricultural commodities across the breadth and the length of the supply chain.

Operating under a federated structure, individual farmers join their respective state farm organisation and/or national commodity council. These organisations form the NFF.

The NFF represents Australian agriculture on national and foreign policy issues including workplace relations, trade and natural resource management. Our members complement this work through the delivery of direct 'grass roots' member services as well as state-based policy and commodity-specific interests.

Statistics on Australian Agriculture

Australian agriculture makes an important contribution to Australia's social, economic and environmental fabric.

Social >

There are approximately 88,000 farm businesses in Australia, 99 per cent of which are wholly Australian owned and operated.

Economic >

In 2018-19, the agricultural sector, at farm-gate, contributed 1.9 per cent to Australia's total Gross Domestic Product (GDP). The gross value of Australian farm production in 2018-19 is estimated to have reached \$62.2 billion.

Workplace >

The agriculture, forestry and fishing sector employs approximately 318,600 people, including full time (239,100) and part time employees (79,500).

Seasonal conditions affect the sector's capacity to employ. Permanent employment is the main form of employment in the sector, but more than 26 per cent of the employed workforce is casual.

Environmental >

Australian farmers are environmental stewards, owning, managing and caring for 51 per cent of Australia's land mass. Farmers are at the frontline of delivering environmental outcomes on behalf of the Australian community, with 7.4 million hectares of agricultural land set aside by Australian farmers purely for conservation/protection purposes.

In 1989, the National Farmers' Federation together with the Australian Conservation Foundation was pivotal in ensuring that the emerging Landcare movement became a national programme with bipartisan support.

Introduction

Providing certainty to food and fibre producing agricultural land managers is more critical than ever for the Australian public and economic recovery from the economic impacts of COVID-19. Farming enterprises have much to risk if continuing use aspects, business as usual (BAU) or future agricultural land management options are made economically unviable through a new regulatory regime which is not effective. Productivity and future growth of agricultural industries in less highly developed regions of Australia is at risk if processes for regulation are impractical or onerous.

The independent review process presents an opportunity to reset and redirect environmental law reform — if carried out correctly — and deal with the recent negative policy debates at multiple levels of government. The National Farmers' Federation (NFF) has been actively involved in reform of the EPBC Act, most recently through the independent review of interactions between the EPBC Act and the agriculture sector led by Dr Wendy Craik (Craik Review). NFF has been actively engaged in the various consultative processes in development of the current independent review and have been highly engaged in the development process.

Farmers around Australia are already contributing to the biodiversity wealth of their regions, especially in the undeveloped parts of their land, and in the management of their productive unregulated land. This is not a government decreed obligation, but rather both an outcome of land planning, and the use of farmer skills to ensure land remains productive and sustainable for farming into the future.

The agriculture sector is facing many long-term challenges in managing Australia's environment and heritage, with clear management impacts identified in the Interim report. Particularly, those relate to increasing changes in land use, habitat fragmentation, invasive species and managing the need to grow the economy and feed a growing global population. This is the reality that must shape how the EPBC Act operates into the future. However the interim report seeks to outline processes and regulatory controls that would seek to restore the environment to a position where future development can be facilitated, and in doing so, where states cannot develop regional plans that meet the Commonwealth's desired standard, impose its own plans 'to manage plans at a landscape scale and the cumulative impacts on MNES'.

The current contribution of landowners must not then be taken as a pre-ordained donation to ecosystem retention, but rather a working living contribution through good management. To look to quarantine this current level of contribution, and further augment it by imposing further restrictions on rural development is inequitable for rural landowners.

The Craik review remains a core part of the NFF's approach to EPBC Act reforms as it explicitly recognises its unique nature and set of considerations that materially differentiates agriculture from other sectors such as the property

sector or mining sectors. Most farmers likely to be affected by obligations under the EPBC Act are relatively small landholders who solely operate a business and often do not have the expertise nor knowledge to navigate through the administrative landscape to understand their obligations. Given the size and scale of landholdings, agriculture is best engaged with at regional level, as this allows scaled and coordinated solutions and plans.

It is therefore timely to discuss what the objectives of the Act should be and the role the agriculture sector should play in meeting, and improving, these objectives. The Act is about more than regulation of actions. The actions, decisions, plans and policies must be consistent with the objects of the Act, and thus far the independent review consultation process has not proposed any form of enhancement of recovery plans or threat abatement plans which address biodiversity protection. Given the trajectories of biodiversity due to habitat quality declines, on both private and public managed areas. Defining these objectives (and subsequent development of systems and tools) is crucial. The NFF believes that the progress of the independent review thus far has not adequately defined the objectives of the Act in the context of clear outcomes.

Currently there is a major gap between development of threatened species recovery plans, having these plans in place, and these plans being funded. Yet this is a key tenet of achieving the objects of the Act. This shows an abject failure by the Commonwealth over decades to invest in deployed activities to address already identified threatened species. Farmers are concerned that the current review will result in more regulation which create more rules for farmers yet fail to deliver tangible practical steps (funded delivered conservation activities) on the ground by the Commonwealth. Equally the solution is not found in funding for additionality (via offset market-based solutions) on set aside remanent vegetation, as this devalues the asset base of the landowner for highest and best use of land. This would be function of the regional no net loss or cumulative cap solution, and in effect, at a state level, does not respect the social, economic and environmental goals of the state.

Deane et al (2020) argues *that there is a lack of clarity around the overarching objectives of regulation of agricultural activity under the Act, and a view that, as it is currently implemented, the EPBC Act is neither effectively nor efficiently meeting its regulatory objectives in relation to the agricultural sector. The level of engagement with the agricultural sector under the referrals framework suggests that many farmers are not aware of their obligations under the Act, nor how to access and interpret the relevant information in order to ensure their projects align with environmental standards. Moreover, the EPBC Act lacks strategic incentive schemes to assist the agricultural sector to develop Australian industry in a sustainable way, thereby undermining the important role of farmers in the protection of environmental assets.*

Response to interim report

A regional approach required

Given over half the Australian landscape is managed by farmers, the role of farmers should not be understated. From the outset, and consistent with previous submissions, the NFF remains critical of how the EPBC Act is applied to the agriculture sector. These concerns are also shared by the forestry sector, in non-Regional Forestry Agreement areas where the EPBC Act applies.

Effectively coordinating Commonwealth, State or Territory, and Local and/or Regional systems to create genuine environmental outcomes and protection on agricultural lands is an extraordinarily difficult and complex task. Despite the interim report recognising that *'planning at the national and regional (landscape) scale is needed to take action'*, the proposed standards do not contemplate a regional approach, and are only intended to be applied by States. It is not obvious how the underpinning national environmental standards will facilitate a regional-scaled approach and misses the opportunity to embed a system of regulation and monitoring which accounts for local conditions and local application of Commonwealth priorities for conservation. The lack of effective threat abatement and recovery plans can only be addressed by deployment of coordinated strategic (local) planning and regional deployment of resources.

Such an approach has been demonstrably successful. For example, Queensland had sound Regional Vegetation Management Planning that was instituted in 2002 and then abandoned in 2004 (when the State Government decided to administer legislation as a blanket rather than retain regional specificity). Each of the 13 bioregions developed detailed plans on specific vegetation and ecosystem management which provided agricultural guidance and locally relevant investment prioritisation. In NSW the Local Land Services regions could facilitate a contemporary process, utilising the Biodiversity Assessment Methodology (BAM).

Deane et al. (2020) states: *There are 56 NRM regional bodies in Australia. In NSW, Victoria, South Australia and Tasmania, the NRM bodies are statutory and their functions are specified in legislation. In Queensland, the Northern Territory, Western Australia and the ACT, the NRM bodies are non-statutory and their functions are determined by the group and its stakeholders. However, the AgriFutures Report in 2019 found there to be a lack of consistent and formal collaboration with NRM groups in the development and implementation of industry-led sustainability initiatives. One of the key barriers to the integration of NRM Group leadership was the lack of clear national strategy for NRM and sustainable agriculture. However, the benefits that could result from further engagement with NRM Group and regional bodies include:*

- *Improving the alignment of strategic goals and priorities across local, regional, national and international scales;*
- *Achieving greater consistency of sustainability metrics and indicators;*
- *Improving the compatibility of data sets; and*

- *Supporting industry practice change through collaborating in research, development and extension activities, leveraging program and project level investment and identifying new market opportunities that might assist in developing farm level sustainability.*

It is absolutely critical that assessments of biodiversity, mapping, data and other factors are focussed through an upscaled frame. In a spatial context it makes sense for this to be a regional scale that can allow a strategic and informed approach to address decline — doing so at a more granular level may have a perverse outcome of leaving farmers exposed to unreasonable expectations (and the evidence to date is at their cost) to deliver broader scale community expectations, in which the community needs to invest not simply demand from a particular sector.

NFF urges an expert advisory panel work on regionalisation. Once developed, this needs proper consultation with user groups. The utilisation of a regional framework was a key recommendation of the Craik report and should be supported.

It is not appropriate that individual projects be required to lead recovery (through approvals). The scale of individual projects makes them an inappropriate vehicle for driving recovery, which should be undertaken at a region scale. This is particularly so, given a range of projects and key threats fall outside of the scope of the EPBC Act, either statutorily or in practice.

The lack of regional approaches in which locally relevant factors are placed in context of environmental legislation must be identified and resolved. NFF understands that there is an expectation that, under a devolved model, the states would address this. We argue there is merit in a nationally consistent approach of requiring a spatial floor, not farm by farm nor project by project approach, for processes like biodiversity assessment, data aggregation and availability, and strategic assessments. This would allow harmonisation of conflicting policies, provide local level implementation of the national framework and reduce the bureaucratic inefficiency of individual-level project assessments.

There are significant opportunities to integrate regional approaches with existing regional bodies that align with Commonwealth objectives, and create a conduit between national, state and local objectives. Explicitly recognising regional planning within the national environmental objectives is important in this respect, especially if the standards are intended to be devolved to states.

Further, the review should reconsider standards development on the total body of state legislation (and its reform as appropriate) which would be required to achieve the standards by that state government, plus the impacts of this on agricultural landholders individually, using a regional approach. This threshold would protect both producer privacy and enable engagement, as well as ensure that the reform process is effective and creates real improvements.

Privacy of data

The NFF is vitally concerned to ensure that collection and utilisation of, especially digitised, data is appropriate. The capacity of data to underpin quality assessment and approval processes is very powerful and there are a number of rules that need to be observed:

- The data must be aggregated to no less than a regional scale, if it is likely to be or become publicly accessible at any stage including, but not limited to, freedom of information outcomes;
- Data that identifies an individual property or an individual landholder's personal information should not be made publicly available;
- The data must be very accurate. In this context it must be able to be ground truthed and if thought inaccurate or misrepresentative, then be able to be challenged by the landholder at the regulator/ data originator's cost;
- Proprietary data, especially data collected in the following circumstances:
 - By a landholder for his own purposes;
 - By a landholder in collaboration with scientific or other credible research processes;
 - As a consequence of a government funded project or grant; or
 - Otherwise attributable to a single landholding or group of landholdings under common ownership;where provided by the landholder for another purpose, or otherwise available to a regulator, data must not be available to the general public in a manner which allows it to be used for interference in how a landholder manages their resource nor for third party originated compliance measures.

The NFF accepts and supports the need for, and power of, data. Data for management purposes must be high quality, accurate and it must be used with the necessary resolution for appropriate purposes. Quality digitised data will be fundamental for an efficient and robust metrics system for informing a natural capital market. Where diverse data is compiled, it should be done so in a federated model, or in other words, a data lake, where access to data is conditional.

Data for compliance and for developing assessment and recovery strategies should be granularised only to the regional scale. Where it is to be utilised for informing a market then it must only be more precisely (spatially) available to landholder individuals for their express use and held in an anonymised manner through technologies such as Blockchain.

There are a range of examples of how poor data and/or misused data are problematic — this is especially exacerbated when they are subsequently relied upon for compliance determination or other public implementation purposes. Examples include:

- Translated existing data like property boundaries to a digitised format has been found to include inaccuracies. This has the consequence of creating

doubt over proper property boundaries compromising ownership and transaction clarity;

- Satellite and aerial mapping of vegetation has often proven inaccurate in identification of vegetation type, quality or composition measurements, leading to management requirements being misunderstood and/or leading to a difficult process of getting correction. In NSW, for example, the process of challenging mapping data took some decades to resolve in a manner that provided some equity to the landholder. Where risk-based maps are developed as tools the possible presence of species or ecosystem will need to have process for adjustment and review. Where maps are regulatory, a formal and non-cost to landholder system of review and challenge must be implemented;
- There have been episodes of third-party activism which risks being created by regulators making publicly available details of agricultural operations, e.g. farm invasions facilitated by the 'Aussie Farms' animal Rights activist website were sourced from legacy National Pollutant Inventory data about intensive animal sites which required names, physical addresses of properties and producer's phone numbers to be reported publicly on the website. This enabled activists to locate and target intensive animal production sites and trespass on these properties causing significant distress; and
- Inaccurate or poor/misused data made public creates a cultural and attitudinal shift amongst producers, in which agencies and systems lose credibility and producers disengage from processes.

The concern from many producers is that without robust privacy and granularity settings, agricultural land managers will be subject to vexatious third party legal or compliance challenges, and potentially subject to significant political risks when governments at state or federal level make changes to legislation or other programs.

Why agriculture is different

Agriculture is a unique category of land use. All agricultural land use retains some form of biodiversity and habitat provision. Where modification of landscapes results in extensive production industries — like grazing — biodiversity levels can be enhanced rather than degraded by landholder management actions. NFF believes that the predominant focus of the EPBC Act on regulating activity and stopping behaviour misses a significant important to promote and recognise stewardship activities that can deliver material outcomes for the environment, especially on private property. Humans, especially including farmers, have managed the Australian environment for thousands of years and this must be recognised. In the context of Environmentally Sustainable Development principles for both the Commonwealth and State Governments (to whom the independent review recommends devolution), properly engaging agricultural land managers and readying Australia's environment, economy and communities to respond to challenges of inevitable change and increasing pressures is vital.

The interim report does not adequately recognise the unique aspects of agricultural land management nor the social and cultural factors relevant to build relationships and encourage adoption of activities. Key pieces of the puzzle are still missing or need modification before this approach can be viable, reasonable and effective. For example, when grazing land is managed within its capabilities, there are many ecosystem services that are provided to the whole community, such as improved water quality and increased native flora and fauna. Without acknowledging these important services, recognising and respecting the farming skill to deliver these, we risk a continued decline in overall landscape health.

The 2016 State of the Environment report revealed a continuing decline in Australia's biodiversity while the UN report from the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services highlighted the threat of invasive alien species on Australia's biodiversity. This is evidence that the current approach to the regulation of biodiversity in Australia is not working. The EPBC Act has delivered poor outcomes for the agricultural sector. Like many environmental legislations, it has been developed around new uses/development, such as conversion of farmland to urban uses or mining. The processes under which the Act operates do not work well for the agriculture sector (a continuing, existing use of the land), and should be approached differently.

Only via the application of regional planning tools and systems can threshold points be given locally relevant criteria. Deane et al. (2020) concluded: *The disconnect between the EPBC Act and the agricultural sector is further exacerbated by the broad discretionary powers given to the Minister. For example, the 'likely significant impact' threshold for EIAs has not been sufficiently clearly communicated to the sectors who bear the responsibility of referring their actions if they meet that threshold. The result of this ambiguity has been uncertainty in determining if an action associated with a project is likely to be a 'controlled action'.*

National Environmental Standards process

Setting out our engagement and ongoing disposition

The NFF welcomes the opportunity to respond to the final consultative group meeting of the independent review of the EPBC Act Discussion Paper.

The NFF supports the independent review process, but strongly urges that it (and the probable ensuing Government consultation process on National Environmental Standards (NES)) should be carried out in a manner not dictated by timeframes, but by results. The Commonwealth should also provide a clear pathway to implementation, including funding and other support mechanisms to landholders, state authorities and regional systems, as well as clear process for consultation on the implications for farming industries under each state or territory's devolvement process.

The NFF is concerned that the current draft NESs would place a disproportionate cost and place an additional burden of contribution of management activities, on the agricultural sector and significantly impede farmers' commercial viability.

Put simply, NFF cannot support the reform process unless and until we are availed of the full suite of reforms, including but not limited to:

- Clear understanding of how jurisdictions, acting in concert with the NES process, would adjust their own legislations and incorporate the implementation mechanisms and how the devolution would work;
- Data, biodiversity and other indicators, consultation and strategic implementation are designed into a regional level process;
- The impact of the full reform package is transparently communicated to the sector and it is clear that farmers will not be worse off than the status quo as a consequence of the reform process, and preferably have an improved engagement and understanding;
- Ensuring draft NESs are able to be tested via a case study approach by user groups prior to them becoming enshrined via a legislative instrument.
- Demonstration that scope creep has not been embedded in the NES;
- Satisfaction that measures that balance economic and social indicators are afforded equal footing with environmental priorities; and
- Farmers can conduct themselves under continuing use provisions (Section 43 A and B of the EPBC Act) that do not compromise standard and accepted farm practice.

Principles for assessment/consideration of the NESs

NFF is concerned that the current draft interim NESs, especially for the overarching MNES, are unlikely to deliver a halt to biodiversity decline in agricultural landscapes. The first objective of the EPBC act is to provide for the protection of the environment, especially those aspects of the environment that are Matters of National Environmental Significance (MNES). Active land and biodiversity asset management, as opposed to passive non-management, is required to achieve this objective.

The NFF has significant concerns over the lack of clarity on the pathway to the implementation of the devolution, specifically the lack of clarity on impact from proposed NESs and what transitional provisions will be put in place.

The NFF supports the process to develop interim standards but urges that gaps in this process (including details of offset markets, incentive frameworks, species recovery plans, listing processes and strategic assessment processes) be included in future consultation processes.

The NFF is concerned that the current draft of the overarching MNES and other standards developed thus far do not recognise that inherent and existing biodiversity decline is a function of a range of threatening processes. The

introduction of threatening process from, for example, feral animals, exotic weeds and diseases, are beyond the possibility of landowner redress without some forms of external financial contribution. Expectations of non-regression or other 'no net loss' terminology could add costs and shift the burden of responsibility of these existing threatening processes to agricultural landowner's development.

The NFF is concerned that the introduction of new or undefined terminology should be avoided in draft interim standards development, and only terminology and language already defined and utilised should be included. Non-regression and other terminology which is not clearly (or legally) defined should be removed.

The NFF has considered the Interim 1.0, Prototype Standard V2.0 and the 'Future State' standards proposed in the latest iteration of consultation documents.

The NFF unambiguously and simply rejects all elements of the 'Future State' proposal and strongly urges the independent review to not include these in the publication of the final report. They represent a significant and impractical set of policy changes that diverges widely from the current objects, instruments and outcomes of the Act. Furthermore, it egregiously shifts Commonwealth responsibilities and actions under the Act, and iteratively shifts costs onto proponents of development and BAU in the agricultural sector. Further, the column Future State is little more than a collage of ambit claims.

Net loss of biodiversity is, and will continue to be, a feature of the Australian landscape even in the absence of specific developments. Slowing and reversing the trajectory of decline will require a significant investment of resources. This is a burden that should not and must not be placed on farmers seeking to manage productive agricultural lands.

Furthermore, the NFF does not believe it is appropriate to operate under the assumption that environmental assessments and approvals, in all its components, will be successfully devolved to the States to the extent that it completely removes Commonwealth responsibility. It may be the case that communications ultimately becomes a State responsibility, which may be appropriate, but it is not currently obvious within the interim report how the link between the Commonwealth, States and individual landholders will be maintained, or can be improved, to facilitate open communication and delivery of outcomes.

Inevitably, reform of the EPBC Act which involves substantial change requires steady communication to ensure landholders understand what is happening. The main questions that should be considered by the review team, especially for farmers, are:

- If implemented, what will these environmental reforms mean?
- What will be the net and opportunity cost to my business?
- Will I be able to continue farming business as usual?
- What will be the interaction with agriculture of proposed indigenous cultural coverage?

It is important that the final report clarifies measures to improve communication of the EPBC Act reforms and obligations to farmers. The past 20 years have seen inadequate investment into extension and education regarding the EPBC with the continuing lack of awareness and understanding of the Act.

The NFF does not support interim report proposals to expand the scope of the water trigger beyond the current coal seam gas and large-scale coalmining triggers. The current implementation of the water trigger via National Partnership Agreements is effectively a devolution. In that context the experience suggests the states should be strongly encouraged to undertake their own review to focus on getting better outcomes in the following areas:

- Articulating to all stakeholders how the independent advice from the IESC has been resolved in any approval;
- Ensuring all stakeholders are engaged in the consultation process, not just the project proponent and the approval authority; and
- Ensure that how cumulative impacts are to be assessed, at what scale and on what basis they are determined.

There are also concerns to ensure that unforeseen or future impacts are monitored, understood and attributed where there is harm.

Attached to this submission is a tracked change version of the NESs. We reiterate that these must do no more than codify the existing state of the legislation and appropriate subordinate policies.

Industry groups have developed a set of high-level principles to correctly frame this process:

The intent of the standards should be to deliver the current objects of the EPBC Act in a manner that:

- *Enables consistent application of the standards by responsible authorities, whether that be the Australian Government or via accreditation of State/Territory legal frameworks;*
- *Facilitates and promotes both sustainable development and conservation of MNES*
- *Improves effectiveness and efficiency in land use and conservation planning, decision making and project level assessment processes*
- *Promotes the use of science and evidence based environmental planning and decision making*
- *Achieves a balance between development and the maintenance of viable MNES as promoted in the principles for Ecological Sustainable Development (ESD).*

There is also a question as to the degree to, or at least the scope of, which this process of devolution via bilateral should be limited. According to Deane et al: *Under the cooperative federalism framework, the role of the Commonwealth is limited to fulfilling international treaty obligations and harmonising the jurisdictions across Australia. This is achieved by restricting its legislative power to MNES. States, on the other hand, retained residual responsibilities over environmental matters and over matters 'which have no significant effect on*

matters which are the responsibility of the Commonwealth or any other States'. Furthermore, states have power to create law and policy on living and non-living resources managed within their jurisdiction. Given this is the process embedded in the Intergovernmental Agreement on the Environment, there is a case to limit the scope of the MNES devolved to those that relay Australia's international agreements. They include:

- Convention on the Conservation of Migratory Species of Wild Animals ('Bonn Convention');
- Convention on Wetlands of International Importance ('Ramsar Convention');
- Convention Concerning the Protection of the World Cultural and Natural Heritage ('World Heritage Convention');
- Convention on Biological Diversity; and
- Convention on International Trade in Endangered Species of Wild Fauna and Flora ('CITES').

Constitutional validity and consistency

The NFF is concerned that the relevant provisions of the Commonwealth constitution are not dulled by a devolution process. Specifically:

- Section 51 (xxxi) which requires to the Commonwealth to only acquire property under just terms. The devolution or bilateral must not allow the removal of such rights under acquisition; and
- Section 96 which authorises the Commonwealth to grant financial assistance to any state on the terms and conditions that it sees fit.

The NFF argues that the Commonwealth may be in breach of Section 51 (xxxi) through the provision of funds to the States to achieve its international treaty obligations (Section 96), while acquiring property value and property management rights from landowners.

Further legislative and judicial review may be required in any process of devolution.

Funding and Costs

The NFF is concerned that compliance, monitoring and approval conditions arising from the current standards will shift administrative costs and on-ground requirement costs to farmland managers, without demonstrating a pathway to improving either outcomes on the ground nor environmental improvement.

The NFF is concerned that the current draft NESs will not be able to be implemented in current legislation relating to agricultural development and BAU (business as usual) activities in several current state legislative and administrative frameworks. This includes privacy and data collection rules and systems in some jurisdictions. Regulatory costs will increase for state agencies, local governments and agricultural landholders may consequently incur much higher transaction costs.

Through the interim NES process, there has been little assurance that compels the Commonwealth to fund activities that reverse biodiversity decline. Specifically, there is no indication that proposed assurance frameworks would

enable or require Government investment in recovery plans or threat abatement plans, in other words national standards without national investment in the very tools which could actually reverse species decline.

Governance structure

The NFF supports the disposition of the independent review that there should be reasonable structural separation of compliance activities from policy, assessment and approvals functions. This could be simply physical and structural separation in a government department, or it may extend to a statutory office in a similar vein to the Commonwealth Environmental Water Holder or the Inspector General of Biosecurity. However, the NFF does not support the creation of a statutory authority with external members. It is rightly the role of the Minister of the day to bear the burden of decisions in relation to policy direction, and yet remain separate from the independent assessment and implementation of compliance. It is also appropriate that such a model has reporting requirements to the Minister and/or the Parliament.

The draft assurance frameworks provided by the secretariat seems like a balanced and sensible proposal for recommending to the Minister. However, clarity of the role of the assurance frameworks in addressing non-regulatory requirement outcomes, specifically in terms of Commonwealth resourcing of recovery plans and threat abatement plans, should be provided. A tenure blind principle also needs to be adopted, to enable management of threatening processes on both private and public lands.

Alignment with Craik review

Overall, the Craik review recommendations have largely been incorporated in some form within the interim report. However, the NFF notes the following areas which require clarification and expansion, or are absent, for consideration before the final report.

Offsets/ markets

The NFF notes from the outset that markets and other market-based instruments should not be embedded within the EPBC Act but considered as tools to achieve long-term environmental objectives.

The strengthening of regulations without a commitment to a commensurate investment in market-based approaches presents a serious risk for farmers and other landholders, especially in NSW and Queensland, who have already worn the burden with strict native vegetation laws.

The Craik review highlighted that there appear to be no strategic approaches with appropriate incentives to enable the agriculture sector to grow and develop (as often encouraged by government policy) while maintaining national environmental standards. ESD principles accept that development will inherently be a trade-off between competing land use outcomes. This has not been reflected in draft standards and requires coverage, for devolution to be successful. Enabling the Craik Review recommendation of funding of \$1billion over four years to establish a

National Biodiversity Conservation Trust to support the public benefits of protection of MNES using market-based approaches.

Craik recommendation 21

It is recommended that an initial allocation of \$1 billion over four years be provided to establish a National Biodiversity Conservation Trust fund explicitly tied to the EPBC Act to support the public benefits of protection, including by farmers, of matters of national environmental significance through the adoption of a market-based approach that incentivises farmers (and others) to protect and actively manage matters of national environmental significance outside of legislated requirements. Where there is a public benefit, the Fund should have the capacity and authority to, inter alia:

- support the purchase of private land management agreements acquired under Australian Government environmental offsetting programs.*
- directly purchase environment protection and biodiversity conservation outcomes through the acquisition and active management of land, based on a strategic and proactive long-term investment plan.*
- make payments to accredited state and territory Trusts that deliver actions in the long-term investment plan.*
- compensate landholders affected by the influx of a mobile threatened species into an area causing significant financial burden.*

It is further recommended that the Department undertake some preliminary work to develop an approach to assessing public benefits and regularly monitoring, evaluating and publishing the results of the Trust's activities.

Currently, the interim report considerations of market-based instruments are scant and centred on the use of existing carbon markets and offsets to deliver environmental outcomes.

BAU approaches within the Act are not sufficient to deliver long-term outcomes. The NFF notes existing work and interest by stakeholders across the board for financial markets to maintain or improve environmental outcomes. While there is significant body of work required before a natural capital market can be established, it will address a longstanding incentive gap in environmental management that cannot be bridged through current or future regulatory controls of the environment.

In late 2019, the NFF, in partnership with KPMG, launched the Report on Nature report, an informative document on Natural Capital. The paper discusses market-based and sustainable finance approaches with a key focus on ecosystem services that combine capital raising for sustainable land use and management with yield generation linked to defined on-farm outcomes. These outcomes are

environmental; social and cultural; better livelihoods and community cohesion; or economic.

Environmental markets will not replace regulatory mechanisms under the EPBC Act but will act to complement it. The NFF strongly believes that regulations provide limited incentive to deliver outcomes. Regulations tell landholders what they cannot do, but not what should be done, nor does it incentivise it. There is currently no adequate incentive framework.

The role of the Commonwealth in this regard is to 'seed' the market and provide the initial investment to facilitate development an interoperable market which can then attract various private investors. The government is likely to be a market participant as it will have a role in investing on behalf of the community in targeted environmental outcomes.

Communication

The NFF has continuously noted the importance of communicating EPBC Act requirements to farmers. The breadth of Commonwealth, state, and local governments, and regional natural resource management organisations involvement in environmental regulations lends itself to confusion by many stakeholders and individuals. The interim report rightly recognises this concern.

For farmers and the agriculture sector, the Craik review intended to reduce regulatory obligations imposed by the EPBC Act on farmers without reducing environmental standards. Improving communication and on-ground outreach were central themes within the Craik review that sought to improve outcomes for farmers.

While the interim report rightly focuses on improving communication by reforming the information management systems within Departments, and promoting the philosophy of two-way communication, they are not ready substitutes for personal, face-to-face communication.

Economic modelling

NFF has commissioned the development of case studies to evaluate the cost implications from EPBC application processes on two agricultural developments. This analysis shows the potential large capital and operation costs which such restrictions can cause. These data points are only indicative but highlight two data points and the resolution required to make balanced ESD decision making processes possible.

The independent review notes the need to balance economic, social and environmental decisions, and rigour will need to be applied in calculations of the former from an agricultural perspective.

The two examples below provide an insight into the opportunity cost that farmers may suffer if they are unable or unwilling to embark on an assessment process.

Queensland - Approval

In this example calculations using indexed industry benchmarks were applied to calculation of Earnings Before Interest & Tax (EBIT) and Net Present Value (NPV) of an irrigation development proposal. This proposal was approved by State regulators but then referred to EPBC and actions were not approved. The EBIT analysis suggests a return on assets at 48.16% while the NPV analysis suggested that the project would generate a positive net present value of over AUD \$100 million at a discount rate of 8%. The estimated Internal Rate of Return (IRR) of the proposal was around 29.11%. In other words, the costs of not developing this land are substantive and a major limitation to the economic potential of the individual operation (of medium scale for the region). In this example the proposed actions were permitted under state legislation but not allowed under EPBC, meaning a clear cost of permitted refusal in foregone income and capital gains can be calculated and specifically attributed to EPBC process.

NSW – Compliance

In this example calculations using multiple private advisory services and industry benchmarks were applied to DSE (dry sheep equivalent) carrying capacity scenario-based forecasting, and to calculate net change of DSE margin (i.e. to calculate reduced grazing productivity and income per unit). The landholder was carrying out activities permitted under the relevant State legislation codes for RU (rural use) land but was subject to compliance for destruction of a Threatened ecological community, in an unpermitted action under EPBC, and subsequently changed to EU (environmental use) designation under state classification. This resulted in large remediation determination being applied. The application of this methodology showed in a DSE reduction of 2.25 per ha plus cost of \$103 per ha for regulated areas. This has resulted in a reduction of 15% of total farm grazing capacity, with a capital value loss of between \$755,057 and \$518,082 with enduring annual management costs of \$84,556 to \$81,170. In this example the compliance measures against activities which were permitted under state legislation but not allowed under EPBC, meaning a clear cost of compliance measures can be determined.

Bibliography

AgriFutures National Rural Issues, 'Integrating NRM with Industry-Led Sustainability' (August 2019).

Deane F, Huggins A & Nay Z 2020, 'Compliance Processes under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) and Alternative Multi-level Governance Regimes', unpublished report, University of Queensland.

Appendix

Overarching MNES Standards

‘Current settings’ reflect the the current legislative provisions of the EPBC Act and regulations, as well as current guidelines or documents (such as plans, statutory documents or relevant codes), and are considered able to be implementable in the very near term. ‘Future state’ standards require legislative changes to address gaps or constraints in the legislation.

Element	Prototype 1.0: Interim Report	Prototype 2.0: Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
Environmental Outcome	Matters of national environmental significance are protected, and decision-making actively contributes to their conservation and recovery.	Matters of national environmental significance are protected, and decision-making actively contributes to their conservation, appropriate management and recovery. *For heritage places, this includes the human or cultural values related to place.	Matters of national environmental significance are protected, maintained and enhanced* over time and decision-making actively contributes to their conservation, appropriate management and recovery. *For heritage places, this includes the human or cultural values related to place.
National Standard	1) Actions and decisions are consistent with the principles of ecologically sustainable development. 2) Actions do not have unacceptable^a impacts on matters of national environmental significance. 3) Planning and funding decisions that relate to matters of national environmental significance promote their conservation and sustainable management, address key threats and fill key information gaps. 4) Monitoring, reporting and evaluation must demonstrate compliance with this national environmental standard. National Environmental Standards for ecologically sustainable development and monitoring and evaluation should be developed and would replace 1. and 4. Interim monitoring and reporting	1) Collectively, actions, decisions, plans and policies that relate to MNES: a) Are consistent with the objects of the EPBC Act and the principles of ecologically sustainable development including the precautionary principle and the principle of non-regression. b) Do not have unacceptable or unsustainable impacts on MNES, having regard to the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts. c) Avoid, mitigate or offset <u>well defined significant impacts</u> and take all reasonable steps to minimise harm to MNES.	1) Collectively, actions, decisions, plans and policies that relate to MNES: a) Maintain or enhance environmental values, ecological and cultural integrity, and resilience of MNES over time. b) Are consistent with the objects of the Act, including the principles of ecologically sustainable development, the precautionary principle and the principle of non-regression. c) Do not have unacceptable or irreparable impacts on MNES having regard to the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts.

Commented [WR1]: NFF is of the view that this is scope creep and an undefined term, we propose it is deleted

Element	Prototype 1.0: Interim Report	Prototype 2.0: Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
	requirements are provided in the monitoring and reporting section of this Standard.	d) Are not inconsistent with regional, state or Commonwealth recovery plans, management plans and threat abatement plans, and have regard to any approved conservation advice where relevant. e) Promote their conservation and sustainable management, address detrimental cumulative impacts and key threatening processes and fill information gaps that impede recovery and appropriate management. f) Use all reasonable efforts to prevent detrimental cumulative impacts or exacerbation of key threatening processes on MNES. g) f) Are based on the best available information, and stored and shared consistent with the Data and Information NES. 2) Meaningful engagement is undertaken with governments, the community, land-holders and indigenous peoples. 3) Monitoring, reporting and evaluation demonstrates compliance with this national environmental standard. 4) The standard is relevant to activities at all scales including individual projects, regional plans, and activities under government legislation and policies. The overall outcome could result from the collective achievements of a combination of activities.	d) Avoid, mitigate or offset impacts and take all reasonable steps to minimise harm to MNES. e) Promote their recovery and sustainable management, including by addressing cumulative impacts, managing threats and filling information gaps that impede recovery and appropriate management. 5) Monitoring, reporting and evaluation measures the achievement of the environmental outcome, or demonstrates where further action is needed. 6) 5) This standard applies nationally, and can apply to activities at a range of scales including individual projects and regional plans and in state, territory and national legislation and policies implemented or accredited under the EPBC Act. The standard can be achieved by the collective outcome arising from a suite of relevant activities.

Commented [WR2]: Opposed, it seems poorly defined, otherwise dealt with in other clauses, and not evident in the Act

Commented [WR3]: NFF are concerned that this will impact poorly on agriculture, without minimum assessment thresholds or a specific exemption for agriculture this cannot be supported

Element	Prototype 1.0: Interim Report	Prototype 2.0: Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
Monitoring and Reporting	1) A monitoring and evaluation plan must be prepared. The plan must: a) be based on best available knowledge and information, and b) implement the precautionary principle^b. Scenario analysis may be useful when uncertainty is high c) establish the baseline, key indicators, and monitoring activities relevant to the protected matter d) be over a time frame and area relevant to the potential risk, and e) identify thresholds for when Standards are not being met and the management response. 7)6) The plan and monitoring results, and the underpinning data and information on which they are based, must be published. 8)7) Accurate and complete monitoring and compliance records must be kept and provided to the Department upon request.	a) A monitoring and evaluation plan must be prepared and implemented for each MNES standard which must: a) address impacts for each MNES, and be designed to understand and track all cumulative impacts at the relevant scale (eg national, state-wide, regional plan areas or project site) b) cover all actions, activities, decisions, plans, or policies that impact the outcomes for MNES, relevant to the scale c) establish <u>within a regional approach</u> the baseline, key indicators, monitoring activities, evaluation and reporting processes relevant to the protected matter and the activities being conducted, d) be based on the best available evidence, and accord with the NES for Data and Information, and other relevant NES or guidelines e) be over a time frame and <u>significant geographic</u> area relevant to the potential risk or benefit to the MNES f) be designed to ensure the state of the MNES and any changes in its state can be quantified, with the power <u>and cost sharing arrangements</u> of analysis to detect change in the MNES explicitly identified g) identify thresholds of change in the MNES (distribution, abundance,	1) A monitoring and evaluation plan must be prepared and implemented for each MNES standard which must: a) address impacts for each MNES, and be designed to understand and track all cumulative impacts at the relevant scale (eg national, state-wide, regional plan areas or project site) b) cover all actions, activities, decisions, plans, or policies that impact the outcomes for MNES, relevant to the scale c) establish the baseline, key indicators, monitoring activities, evaluation and reporting processes relevant to the protected matter and the activities being conducted, d) be based on the best available evidence, and accord with the NES for Data and Information, and other relevant NES or guidelines e) be over a time frame and area relevant to the potential risk or benefit to the MNES f) be designed to ensure the state of the MNES and any changes in its state can be quantified, with the power of analysis to detect change in the MNES explicitly identified g) identify thresholds of change in the MNES (distribution, abundance, condition, or integrity) at all relevant scales that will trigger specific mitigation or recovery actions.

Interim Report

Element	Prototype 1.0: Interim Report	Prototype 2.0: Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
		condition, or integrity) at all relevant scales that will trigger specific mitigation or recovery actions. b) The monitoring plan, results, analyses, evaluation of performance against indicators and thresholds, underpinning data and information on which they are based, must be published online annually. c) Plans must be reviewed and updated every 5 years.	2) The monitoring plan, results, analyses, evaluation of performance against indicators and thresholds, underpinning data and information on which they are based, must be published online annually. 9)8) Plans must be reviewed and updated every 5 years.
Review	This is a prototype and should be replaced with a National Environmental Standard following consultation.	This is a prototype National Environmental Standard based on current settings of the EPBC Act. National Environmental Standards should be reviewed and updated as required, including when there are substantive changes to the EPBC Act or relevant administrative arrangements.	This is a prototype.

This standard should be applied in conjunction with other relevant following National Environmental Standards.

Definitions

Maintain ~~or~~ enhance: A net improvement in environmental values, ecological and cultural integrity, and resilience of MNES over time and in absolute ~~terms (not relative to a counterfactual scenario).~~ ~~To be applied at a significant geographical scale, for example NRM regions~~

Objects of the EPBC Act: see s3 of the EPBC Act

Principles of ecologically sustainable development: see s3A of the EPBC Act

Significant impact: A 'significant impact' is an impact which is important, notable, or of consequence, having regard to its context or intensity.³ Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the water resource which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts. All of these factors should be considered when determining whether an action is likely to have a significant impact. See the Significant Impact Guidelines 1.1: Matters of National Environmental Significance for more information about assessing the significance of impacts on matters of national environmental significance.

Unacceptable or unsustainable: Section 46(3)(c) requires that actions approved under a bilateral agreement not have unacceptable or unsustainable impacts on relevant MNES. While a number of EPBC Act decisions provide a precedent for this threshold, the definitions of 'unacceptable' or 'unsustainable' impacts requires granular and specific guidance. Further work should be undertaken to refine this definition.

Commented [WR4]: Propose delete, the counterfactual is the reality, ie a state of biodiversity decline. Including this clause inherently binds non developers to an improvement regime that is a) unachievable and b) a public good conservation expectation on an individual.

Matter-specific Standards

World Heritage

World Heritage properties are cultural and/or natural places considered to have Outstanding Universal Value by the international community. They are properties inscribed on the UNESCO World Heritage List that Australia protects under the World Heritage Convention for present and future generations.

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
Environmental Outcome	The outstanding values of World Heritage properties ^a and National Heritage places ^b are identified, protected, conserved, presented and transmitted to future generations.	The Outstanding Universal Value of Australia's World Heritage properties is identified, protected, conserved, presented and transmitted to future generations.	The Outstanding Universal Value of Australia's World Heritage properties is enhanced through identifying, protecting, conserving and presenting the OUV of a property, so it can be transmitted to future generations.
National Standard	1) No development incursion into a World or National Heritage area^c, unless it promotes the management and values of the property or place. 2) Actions must not cause or contribute to a detrimental change to the World or National Heritage values of a property or place. 3) Management arrangements must ensure World and National Heritage values of a property or place are protected and conserved.	The conservation and appropriate management of World Heritage properties is supported by actions, decisions, plans and policies that collectively: 1) Do not adversely impact the property's Outstanding Universal Value, taking into account both individual and cumulative impacts. 2) Avoid development in or adjacent to a World Heritage property, unless it is consistent with its Outstanding Universal Value of the Property. 3) Are not inconsistent with a management plan for the place made in accordance with the EPBC Act. 4) Protect and manage World Heritage properties in accordance with the World Heritage Management Principles including: a) ensuring the Outstanding Universal Value of the Property, including the conditions of integrity and/or authenticity not adversely impacted. b) monitor, manage and protect attributes of the property.	The conservation and appropriate management of World Heritage properties is supported by actions, decisions, plans and policies that collectively: 1) Identify and manage properties with input from the Australian community, from those with rights or interests in the place, including Traditional Owners, and from experts. a) Where Indigenous cultural heritage values exist, management is undertaken in accordance with the principles of free, prior and informed consent and include options for full or co-management by Traditional Owners. 2) Develop and implement heritage or strategic management plans or management arrangements for all places consistent with the World Heritage Management Principles, that: a) ensure the Outstanding Universal Value of the Property, including the conditions of integrity and/or authenticity, are sustained or enhanced over time

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
			b) identify, monitor, manage and protect attributes of the property must be through the plan. 3) Do not adversely impact the property's Outstanding Universal Value, taking into account individual and cumulative impacts. 4) Avoid development in or adjacent to a World Heritage Property, unless it is consistent with or enhances its Outstanding Universal Value. 5) 1) Identify and address threats or risks to places' Outstanding Universal Values with responses adapted to the scale of threat, and context and diversity of different properties.
Further Information	Australian Heritage Database General information about Australia's listed heritage places	Australian Heritage Database General information about Australia's listed heritage places UNESCO World Heritage List – Australian properties	

~~This standard should be applied in conjunction with other relevant following National Environmental Standards.~~

Definintions:

Outstanding Universal Value: includes the criteria under which the property is inscribed on the World Heritage List, the statements of authenticity and/or integrity, and the statement of protection and management. ~~It should not however unnecessarily and unfairly interfere with construction and especially reconstruction due to natural disaster of adjacent infrastructure.~~

World Heritage property: Includes the areas within the boundary of the listed property, and its buffer zone (as relevant).

Integrity and authenticity: may include detrimental change to the integrity of key habitats, threatened species or ecosystem processes which are attributes of a World Heritage property, and detrimental change to the ability of a site to authentically express its cultural values through its attributes, such as Traditional Owners' expression of culture through country.

World Heritage Management principles: defined in EPBC Regulation 10.01

National Heritage

National Heritage places comprise natural, historic and Indigenous places of outstanding heritage significance to Australia. National Heritage places also support Australia's commitments under international conventions.

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
Environmental Outcome	The outstanding values of World Heritage properties ^a and National Heritage places ^b are identified, protected, conserved, presented and transmitted to future generations.	The National Heritage values of Australia's National Heritage places are identified, protected, conserved, presented and transmitted to future generations.	The National Heritage values of Australia's National Heritage places^a are identified, protected, conserved, presented and transmitted to future generations.
National Standard	1) No development incursion into a World or National Heritage area^c, unless it promotes the management and values of the property or place. 2) Actions must not cause or contribute to a detrimental change to the World or National Heritage values of a property or place. 3) Management arrangements must ensure World and National Heritage values of a property or place are protected and conserved.	The conservation and appropriate management of National Heritage places is supported by actions, decisions, plans and policies that collectively: 1) Do not adversely impact a place's National Heritage values, taking into account both individual and cumulative impacts. 2) Are informed by input from the Australian community, from those with rights or interests in the place, particularly Traditional Owners, and from experts. 3) Avoid development in or adjacent to a National Heritage place, unless it is consistent with its National Heritage values. 4) Are not inconsistent with a management plan for the place made in accordance with the EPBC Act. 5) Include protection and management arrangements that ensure National Heritage values of a place are protected and conserved in accordance with the National Heritage Management Principles.	The conservation and appropriate management of National Heritage places is supported by actions, decisions, plans and policies that collectively: 1) Identify and manage places with input from the Australian community, from those with rights or interests in the place, including Traditional Owners, and from experts. a) Where Indigenous cultural heritage values exist, management is undertaken in accordance with the principles of free, prior and informed consent and include options for full or co-management by Traditional Owners. 6) Develop, implement and act consistently with a heritage or strategic management plan or management arrangements for all places consistent with the National Heritage Management Principles, that: a) Ensure the National Heritage values of a place are sustained or enhanced over time. 2) Avoid development in or adjacent to a National Heritage place, unless it is consistent with its National Heritage values.

Interim Report

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
			3) Do not adversely impact a place's National Heritage values, taking into account both individual and cumulative impacts. 4)1) Identify and address threats or risks to places' National Heritage values, with responses adapted to the scale of threat, and context and diversity of different places.
Further Information	Australian Heritage Database General information about Australia's listed heritage places	Australian Heritage Database General information about Australia's listed heritage places	

~~This standard should be applied in conjunction with other relevant following National Environmental Standards.~~

Definitions:

National Heritage place: includes the areas within the boundary of the listed place, and its buffer zone (as relevant). ~~It should not however unnecessarily and unfairly interfere with construction and especially reconstruction due to natural disaster of adjacent infrastructure.~~

National Heritage Management Principles: defined in EPBC Regulation 10.01E

National Heritage values: identified in the gazetted National Heritage listing instrument and are published on the Australian Heritage Database.

Wetlands of International Importance (Ramsar wetlands)

Wetlands of international importance are globally recognised important wetlands and listed under the Convention on Wetlands of International Importance (Ramsar Convention), or declared by the Minister to be a declared Ramsar wetland under section 16 of the EPBC Act.

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
Environmental Outcome	The ecological character of each Ramsar wetland is maintained through the conservation, management and wise and sustainable use of the wetland.	The ecological character of each Ramsar wetland is maintained through the conservation, management and wise use of the wetland, having regard to ecologically sustainable development	The ecological character^a of each Ramsar wetland is maintained and enhanced through the conservation, management and wise use of the wetland, having regard to ecologically sustainable development
National Standard	1) No development incursion within the boundary of a Ramsar wetland^a, unless it promotes the conservation, management and/or wise and sustainable use of the wetland. 2) Actions must not cause a detrimental^b change in ecological character of Ramsar wetlands^c. 3) Management arrangements must ensure the ecological character of Ramsar wetlands are protected and conserved.	The conservation, management and wise use of Ramsar wetlands is supported by actions, decisions, plans and policies that collectively: 1) Avoid development incursion within the ephemeral boundary zones of a Ramsar wetland, unless it promotes the conservation, management and/or wise and sustainable use of the wetland. 2) Do not within the ephemeral zone cause a detrimental change in ecological character of a Ramsar wetland. 3) Implement management arrangements that ensure the ecological character of Ramsar wetlands are protected and conserved.	The conservation, management and wise use of Ramsar wetlands is supported by actions, decisions, plans and policies that collectively: 1) Avoid development incursion within the boundary of a Ramsar wetland, unless it promotes the conservation, management and/or wise and sustainable use of the wetland. 2) Do cause a detrimental change in ecological character of a Ramsar wetland. 3) 1) Implement management arrangements that ensure the ecological character of Ramsar wetlands are protected, conserved and enhanced.
Further Information	General wetlands information Australian wetlands database (including location maps, ecological character description and information for individual wetlands)	General wetlands information Australian wetlands database (including location and boundary maps, Ramsar Information Sheet and Ecological Character Description for individual wetlands) Australian National Guidelines for Ramsar Wetlands	

~~This standard should be applied in conjunction with other relevant following National Environmental Standards.~~

Definitions:

Ecological character: “the combination of the ecosystem components, processes and benefits/services that characterise a wetland at a given point in time” (Ramsar Resolution IX.1 Annex A para 15). The ecological character of each Australian Ramsar wetland is as described in its Ecological Character Description and Ramsar Information Sheet.

Interim Report

The Australian wetlands database provides information about Australia's Ramsar wetlands. Some Ramsar wetlands have catchments that cross state or territory borders. Catchment mapping is available.

Detrimental: a change which results in:

areas of the wetland being destroyed or substantially modified

a substantial and measurable change in the hydrological regime of the wetland, for example, a substantial change to the volume, timing, duration and frequency of ground and surface water flows to and within the [ephemeral zone of the](#) wetland

the habitat or lifecycle of native species, including invertebrate fauna and fish species, dependent upon the wetland being seriously affected

a substantial and measurable change in the water quality of the wetland – for example, a substantial change in the level of salinity, pollutants, or nutrients in the wetland, or water temperature which may adversely impact on biodiversity, ecological integrity, social amenity or human health, or

an invasive species that is harmful to the ecological character of the wetland being established (or an existing invasive species being spread) in the wetland.

Threatened Species and Ecological Communities

Threatened species and ecological communities are listed under section 178 of the EPBC Act, following a rigorous scientific assessment of their threat status.

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype: Reformed settings
Environmental Outcome	The status of threatened species and communities improves over time, through the conservation, management and sustainable use of the environment.	Threatened species and ecological communities are protected and maintained over time and decision-making actively contributes to their conservation, appropriate management and recovery.	Threatened species and ecological communities are protected, maintained and enhanced over time and decision-making actively contributes to their conservation, appropriate management and recovery and other species and ecological communities are managed to avoid declines that warrant listing as threatened.
National Standard	For vulnerable species: 1) No net loss^a for vulnerable species habitat. 2) Actions must manage on-site impacts and threats, where these are not managed through alternative frameworks^b. For endangered species and communities: 1) No net loss^a for endangered species habitat and ecological community distribution. 2) No detrimental change to the listed critical habitat^c of a species or ecological community. 3) Actions must manage on-site impacts and threats, where these are not managed through alternative frameworks^b. For critically endangered species and communities: 1) Actions must deliver a net gain^a for critically endangered species habitat and ecological community distribution. 2) No detrimental change to listed critical habitat^c of a species or ecological community.	The conservation, appropriate management and recovery of each threatened species and ecological community is supported by actions, decisions, plans and policies that collectively: 1) Are not inconsistent with relevant recovery plans and threat abatement plans. 2) Have regard to relevant conservation advices and relevant critical contemporary information. 3) Include satisfactory field surveys to ascertain areas of habitat critical to the survival, important populations and condition thresholds. 4) Employ all reasonable measures to avoid or mitigate impacts to listed threatened species and ecological communities, and offset only where it is ecologically feasible. For all listed threatened species and ecological communities: 1) Result in no net reduction in: a) the population of a listed threatened species or important population of a vulnerable species	The recovery and restoration of each threatened species and ecological community is supported by actions, decisions, plans and policies that collectively: 1) — Maintain or enhance the viability, function and representation of the threatened species/ecological community. 2) — Manage impacts to all species or ecological communities such that new species and communities do not become threatened. 3) — Undertake restoration and recovery activities in accordance with the Restoration and Recovery Standard. 4) — Implement recovery plans, threat abatement plans, conservation advices and regional plans. 5) — Include satisfactory field surveys to ascertain areas of habitat critical to the survival, important populations and condition thresholds. 6) — Have regard to any relevant critical contemporary information. 7) — Employ all reasonable measures to avoid or mitigate impacts to listed threatened species

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype: Reformed settings
	3) Actions must manage on-site impacts and threats, where these are not managed through alternative frameworks^b. Additional requirements in Commonwealth areas: 1) Actions must not kill, injure or take a listed threatened species or ecological community, except where an EPBC Act permit is issued.	b) quality or quantity of habitat of a listed threatened species c) extent or condition of an Endangered or Critically Endangered ecological community. 2) Not exacerbate key threats to the species or ecological community, including (but not limited to): a) fragmentation of habitat of a listed threatened species or ecological community <u>where regional planning processes are in place</u> b) the introduction, spread, encroachment or growth of invasive species (including disease). 3) <u>Result in no negative impacts to habitat critical to the survival</u> and or important populations of listed species, large and/or diverse areas of ecological communities or areas of ecological communities that meet high extant condition thresholds and classes, unless ecologically feasible to offset impacts. For highly restricted and small and declining listed species: 4) Result in no loss of habitat or individuals. For highly restricted and sensitive ecological communities: 5) Result in no reduction in extent or quality of the community. Additional requirements in Commonwealth areas:	and ecological communities, and offset only where it is ecologically feasible. For all listed threatened species and ecological communities: 3) Protect and enhance areas mapped and outlined on a national habitat and populations register, including: a) habitat critical to the survival and or important populations of listed species b) ecological processes critical to the survival of a species or community c) large and/or diverse areas of ecological communities or areas of ecological communities that meet high extant condition thresholds and classes. 4) Result in no net reduction in: a) the population of a listed threatened species, consistent with the environmental offsets standard. d) quality or quantity of habitat of a listed threatened species, consistent with the environmental offsets standard. e) extent or condition of an Endangered or Critically Endangered ecological community, consistent with the environmental offsets standard. 5) Manage cumulative impacts on habitats or populations of species or Ecological communities across their range, including: a) fragmentation of habitat of a listed threatened species or ecological community

Commented [WR5]: These clauses need to be balanced by a scale paradigm, the test cannot apply at less than a regional level, applying it in a too refined manner will create unfair, untenable and achievable expectations on small individual landholders, especially those conducting business as usual activities.

Commented [WR6]: As per above, must be measured and applied at scale

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype: Reformed settings
		6) Actions must not kill, injure or take a listed threatened species or ecological community, except where an EPBC Act permit is issued.	b) the introduction, spread, encroachment or growth of invasive species (including disease). For highly restricted and small and declining listed species: 1) Result in no loss of habitat or individuals. For highly restricted and sensitive ecological communities: 1) Result in no reduction in extent or quality of the community. Additional requirements in Commonwealth areas: 1) Actions must not kill, injure or take a listed threatened species or ecological community, except where an EPBC Act permit is issued.
Further Information	The Species Profiles and Threats (SPRAT) database contains statutory and policy documents, including Recovery plans, Threat Abatement Plans, Conservation Advices, Survey Guidelines, Significant Impact Guidelines, Species and Ecological Community Policy Statements and Information Guides and Factsheets.	The Species Profiles and Threats (SPRAT) database contains links to Recovery Plans and Conservation Advices as well as an interactive map showing the species modelled habitat and other important information sources like listing advices and Threat Abatement Plans.	

~~This standard should be applied in conjunction with other relevant following National Environmental Standards.~~

Definitions

Condition Thresholds and Classes: Most Ecological Community listings since 2007 specify condition thresholds and classes. These are intended to focus national legal protection on patches or occurrences of a TEC that are functional, relatively natural and in relatively good condition. They specify a minimum condition and higher condition classes to understand relative importance of a patch, and to guide management and goals for restoration.

Conservation advice: An approved conservation advice is a document, approved in writing by the Minister that contains a statement that sets out:

the grounds on which the species or community is eligible to be included in the category in which it is listed; and

the main factors that are the cause of it being so eligible;

and either:

- information about what could appropriately be done to stop the decline of, or support the recovery of, the species or community; or
- a statement to the effect that there is nothing that could appropriately be done to stop the decline of, or support the recovery of, the species or community.

Interim Report

Under section 266B of the EPBC Act, the Minister must ensure that there is approved conservation advice for each listed threatened species (except one that is extinct or that is a conservation dependent species), and each listed threatened ecological community, at all times while the species or community continues to be listed.

Section 139(2) of the EPBC Act requires that the Minister must have regard to any approved conservation advice for the relevant species in deciding whether to approve the taking of an action.

Habitat: the biophysical medium or media: (a) occupied (continuously, periodically or occasionally) by an organism or group of organisms; and (b) once occupied (continuously, periodically or occasionally) by an organism or group of organisms and into which organisms of that kind have the potential to be introduced, and (c) biophysical media projected to become suitable for occupation under future climates if specified in the Conservation Advice.

Habitat critical the survival of a species or ecological community: Refers to areas that are necessary:

for activities such as foraging, breeding, roosting, or dispersal

for the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators)

to maintain genetic diversity and long-term evolutionary development, or

for the reintroduction of populations or recovery of the species or ecological community.

Such habitat may be, but is not limited to: habitat identified in a recovery plan or conservation advice for the species or ecological community as habitat critical for that species or ecological community; and/or habitat listed on the Register of Critical Habitat maintained by the Minister under the EPBC Act.

Highly restricted and small and declining listed species: Critically endangered or Endangered listed species with distributions, population sizes and decline which is highly precarious to their survival as demonstrated by species that meet Criteria B, C or D of the [Common Assessment Method](#).

Highly restricted and sensitive ecological communities: Ecosystems that meet the criteria for Critically Endangered or Endangered under Criterion 2 of the EPBC Regulation 7.02 because their geographic distribution is very restricted or restricted and the nature of its distribution makes it likely that the action of a threatening process could cause it to be lost in the near or immediate future.

Important population: A population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in Conservation Advices and Recovery Plans, and/or that are:

key source populations either for breeding or dispersal

populations that are necessary for maintaining genetic diversity, and/or

populations that are near the limit of the species' range.

Maintain ~~grand~~ enhance: A net improvement in environmental values, ecological integrity, and resilience over time ~~and in absolute terms (not relative to a counterfactual scenario).~~

Offsets: measures provided to compensate, repair or replace an impacted value, including changes to the integrity, quality, condition and/or extent of habitat.

An offset is ecologically feasible where it can be demonstrated that the species or community can be restored in a timeframe commensurate with development impact OR enough space exists to undertake restoration (not ecologically or tenure constrained) OR scientific knowledge exists on how to restore the habitat.

Recovery plan: A document, approved in writing by the Minister that contains a statement that sets out the research and management actions necessary to stop the decline of, and support the recovery of, the listed threatened species or listed threatened ecological community concerned so that its chances of long-term survival in nature are maximised. Section 139(1) of the EPBC Act requires that the Minister must not act inconsistently with a recovery plan for the relevant species in deciding whether to approve the taking of an action.

Satisfactory field surveys: Scientifically informed and designed field surveys by suitably qualified people which are undertaken during optimal times for detection, of an appropriate duration, repeated where necessary and include full coverage of the impact site including areas directly and indirectly affected and adequate to produce site wide vegetation and habitat mapping and species records and which can inform detailed design of an action to demonstrate avoidance and mitigation.

Threat Abatement Plan: A document, approved in writing by the Minister that contains a statement that sets out the research, management and other actions necessary to reduce the key threatening process concerned to an acceptable level in order to maximise the chances of the long-term survival in nature of native species and ecological communities affected by the process. Section 139(1) of the EPBC Act requires that the Minister must not act inconsistently with a threat abatement plan for the relevant species in deciding whether to approve the taking of an action.

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Additional Future State definitions:

Cumulative impacts: A reference in this standard to impacts considered on a cumulative basis is a reference to all impacts, whether arising from approved actions or otherwise after the stipulated baseline.

Ecological Processes Critical to the Survival of a species or community: include, but are not limited to, life cycle processes (breeding, feeding and dispersal), interactions among species and physical processes such as hydrological regimes.

Function: the contribution of a species/ecological community to processes in nature, including (but not limited to) those that influence the viability of other species and those that provide ecosystem services to people.

High contributions to viability, function or representation: To meet the requirement for representation, populations and habitat areas designated for impact avoidance should encompass the full range of genetic, compositional, structural, functional and biophysical variation across the habitat of the species or ecological community. Requirements for representation should be determined in statutory instruments at a geographic scale ecologically appropriate to variation in the species or ecological community.

Representation: the viability and function of a species/ecological community throughout its habitat as defined in the EPBC Act measured in geographic units appropriate to the threatened species or ecological community.

Viability: the long term (5 generations of 100 years, whichever is longer) maintenance of persistence, function and distribution of a species/ecological community.

Migratory Species

Migratory species are those animals that migrate to Australia and its external territories, or pass through or over Australian waters during their annual migrations. Examples of migratory species are species of birds (e.g. albatrosses and petrels), mammals (e.g. whales) or reptiles (e.g. marine turtles). Migratory species are those listed on international migratory species conventions and agreements to which Australia is a party.

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
Environmental Outcome	Migratory species and their habitats are protected, conserved and managed to support their survival.	Migratory species are protected and maintained over time and decision-making actively contributes to their conservation and appropriate management within Australia.	The viability, function and representation of each migratory species are maintained and enhanced in their habitat under Australian jurisdiction, and decision-making actively contributes to their conservation and appropriate management within Australia.
National Standard	1) No net loss^a of important habitat^b for migratory species. Additional requirements in Commonwealth areas: 2) Actions must not kill, injure or take a listed migratory species, except where an EPBC Act permit is issued. Requirements for migratory species that are also threatened species or marine species are addressed in the Standard relevant to that MNES.	The conservation and appropriate management of migratory species within Australia is supported by actions, decisions, plans and policies that collectively: 1) Are not inconsistent with Australia's international obligations, being: a) Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) b) China Australia Migratory Birds Agreement (CAMBA) c) Japan Australia Migratory Birds Agreement (JAMBA) d) Republic of Korea Australia Migratory Birds Agreement (ROKAMBA). 2) Are not inconsistent with a relevant Wildlife Conservation Plan or Threat Abatement Plan and have regard to relevant critical contemporary information. 3) Include satisfactory field surveys to ascertain areas of important habitat	The conservation, restoration and appropriate management of migratory species within Australia is supported by actions, decisions, plans and policies that collectively: 1) Support Australia's international obligations, being: a) Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) b) China Australia Migratory Birds Agreement (CAMBA) c) Japan Australia Migratory Birds Agreement (JAMBA) d) Republic of Korea Australia Migratory Birds Agreement (ROKAMBA). 2) Are in accordance with a relevant Wildlife Conservation Plan or Threat abatement Plan, Restoration and Recovery Standard and have regard to relevant critical contemporary information.

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
		and ecologically significant proportions of a migratory species. 4) Employ all reasonable measures to avoid or mitigate impacts to migratory species, and offset only where it is ecologically feasible. 5) Do not adversely affect: e) important habitat for a migratory species, or f) the lifecycle (breeding, feeding, migratory pathways or resting behaviour) of an ecologically significant proportion of the population of a migratory species. 6) Result in no net reduction in: g) the population of a migratory species in Australia, or h) quality or quantity of habitat of a migratory species in Australia where regional planning processes are in place. 7) Not exacerbate threats to migratory species including but not limited to the introduction, spread, encroachment or growth of invasive alien species that may contribute to the decline of the migratory species. Additional requirements in Commonwealth areas: 1) Do not kill, injury, take or trade of a listed migratory species in a	3) Include satisfactory field surveys to ascertain areas of important habitat and ecologically significant proportions of a population of a migratory species. 4) Employ all reasonable measures to avoid or mitigate impacts to migratory species prior, and offset only where it is ecologically feasible. 5) Manage threats and cumulative impacts that contribute to the decline of the migratory species or prevent their recovery. 6) Protect and enhance: a) important habitat for a migratory species, protected and enhanced b) ecologically significant proportions of the population of migratory species, and c) ecological processes critical to survival, as mapped and outlined on the habitat register. 7) Result in no net reduction in: a) the population of a migratory species b) quality or quantity of habitat of a migratory species. Additional requirements in Commonwealth areas: 1) Do not kill, injury, take or trade of a listed migratory species in a Commonwealth Area, except where a permit is issued. Additional requirements for cetaceans:

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Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
		Commonwealth Area, except where a permit is issued. Additional requirements for cetaceans: 1) Do not kill, take, keep, movement, interference with a cetacean or to possess or treat a cetacean, except where a permit is issued.	1) Do not kill, take, keep, movement, interference with a cetacean or to possess or treat a cetacean, except where a permit is issued.
Further Information	Statutory Documents: Wildlife Conservation Plan for Migratory Shorebirds Policy Documents: Survey Guidelines, Significant Impact Guidelines, Species Policy Statements and other information EPBC Act Policy Statement 3.21 - Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds	Statutory Documents: Wildlife Conservation Plan for Migratory Shorebirds Threat abatement plans Policy Documents, including: Survey Guidelines, Significant Impact and strategic assessment guidelines, Species Policy Statements and strategies EPBC Act Policy Statement 3.21 - Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds National conservation values atlas	

~~This standard should be applied in conjunction with other relevant following National Environmental Standards.~~

Definitions

Critical contemporary information: new information can become available for species and communities that may provide important new context for consideration in actions, decisions, plans and policies and not be reflected in statutory documents. This may be through research, monitoring and conservation action implemented as part statutory plans and or arise from unexpected events that change a species situation in the wild for example; Wildfires, disease outbreaks, drought or cyclones.

Cumulative impacts: A reference in this Standard to impacts considered on a cumulative basis is a reference to all impacts, whether arising from approved actions or otherwise after stipulated baseline.

Ecologically significant proportion: Listed migratory species cover a broad range of species with different life cycles and population sizes. Therefore, an ‘ecologically significant proportion’ of the population varies with the species. Factors that should be considered include the species’ population status, genetic distinctiveness and species-specific behavioural patterns (site fidelity, and dispersal rates).

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Habitat: the biophysical medium or media: (a) occupied (continuously, periodically or occasionally) by an organism or group of organisms; and (b) once occupied (continuously, periodically or occasionally) by an organism or group of organisms and into which organisms of that kind have the potential to be introduced, and (c) biophysical media projected to become suitable for occupation under future climates if specified in the Conservation Advice.

Important habitat: for a migratory species is:

Habitat utilised by a migratory species occasionally or periodically within a region that supports an ecologically significant proportion of the population of the species; and/or

Habitat that is of critical importance to the species at particular life-cycle stages; and/or

Habitat that is utilised by a migratory species which is at the limit of the species range; and/or

Habitat within an area where the species is declining.

Habitat as specified in the relevant Wildlife Conservation Plan.

Important habitat for migratory shorebirds is defined in [EPBC Act Policy Statement 3.21 - Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species](#).

Offsets: measures provided to compensate, repair or replace an impacted value, including changes to the integrity, quality, condition and/or extent of habitat.

An offset is ecologically feasible where it can be demonstrated that the species or community can be restored in a timeframe commensurate with development impact OR enough space exists to undertake restoration (not ecologically or tenure constrained) OR scientific knowledge exists on how to restore the habitat.

Population: In relation to migratory species, means the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries including Australia.

Threat Abatement Plan: Is a document, approved in writing by the Minister that contains a statement that sets out the research, management and other actions necessary to reduce the key threatening process concerned to an acceptable level in order to maximise the chances of the long-term survival in nature of native species and ecological communities affected by the process. Section 139(1) of the EPBC Act requires that the Minister must not act inconsistently with a threat abatement plan for the relevant species in deciding whether to approve the taking of an action.

Satisfactory field surveys: Scientifically informed and designed field surveys by suitably qualified people which are undertaken during optimal times for detection, of an appropriate duration, repeated where necessary and include full coverage of the impact site including areas directly and indirectly affected and adequate to produce a site wide vegetation and habitat mapping and species records and can inform detailed design of an action to demonstrate avoidance and mitigation.

Wildlife Conservation Plan: A wildlife conservation plan sets out the research and management actions necessary to support survival of one or more migratory, marine, conservation dependant or cetacean species listed under the EPBC Act, which are not considered endangered or vulnerable, but would benefit from a nationally coordinated approach to their conservation. The Minister has obligations under the EPBC Act when issuing permits and having to be satisfied that the taking of an action is not inconsistent with a Wildlife Conservation Plan for that species that is in force.

Additional Future State definitions:

Ecological Processes Critical to the Survival of a migratory species: include, but are not limited to, life cycle processes (breeding, feeding, migration and dispersal), interactions among species and physical processes such as hydrological regimes.

Function: the contribution of a species/ecological community to processes in nature, including (but not limited to) those that influence the viability of other species and those that provide ecosystem services to people.

High contributions to viability, function or representation: To meet the requirement for representation, populations and habitat areas designated for impact avoidance should encompass the full range of genetic, compositional, structural, functional and biophysical variation across the habitat of the species or ecological community. Requirements for representation should be determined in statutory instruments at a geographic scale ecologically appropriate to variation in the migratory species.

Representation: the viability and function of a species/ecological community throughout its habitat as defined in the EPBC Act measured in geographic units appropriate to the migratory species.

Viability: the long-term (5 generations of 100 years, whichever is longer) maintenance of persistence, function and distribution of a species/ecological community.

Commonwealth Marine Environment

The Commonwealth marine area is any part of the sea, including the waters, seabed, and airspace, within Australia's exclusive economic zone and/or over the continental shelf of Australia, that is not state or Northern Territory waters. The Commonwealth marine area stretches from 3 up to 200 nautical miles from the coast. Australia's oceans are the third largest and most diverse in the world. They underpin our culture, lifestyle and livelihoods. The Commonwealth marine area occupies the vast majority of Australia's oceans.

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
Environmental Outcome	The ecosystem functioning and integrity of Commonwealth marine waters are maintained or enhanced in line with relevant marine bioregional plans.	The environment of Commonwealth marine areas is protected.	The ecosystem functioning, integrity and biodiversity of the Australian marine and coastal environment are protected, improved and restored.
National Standard	1) Actions must be consistent with marine park management plans. 2) Actions must be consistent with marine Bioregional Plans. 3) Actions must not kill, injure or take a listed marine species in a Commonwealth marine area, except where an EPBC Act permit is issued. For fisheries operating in Commonwealth waters 4) Management arrangements must be consistent with the Guidelines for the Ecologically Sustainable Management of Fisheries (2nd edition). Requirements for threatened and migratory species that are also marine species are addressed in the Standard relevant to that MNES.	The protection of the Commonwealth marine environment is supported by actions, decisions, plans and policies that collectively: 1) Are not inconsistent with marine park management plans and marine bioregional plans. 2) Take all reasonable steps to avoid or mitigate impacts, including those that will or are likely to: a) result in a known or potential pest species becoming established in the Commonwealth marine area b) modify, destroy, fragment, isolate or disturb an important or substantial area of habitat such that an adverse impact on marine ecosystem functioning or integrity in a Commonwealth marine area results c) have a substantial adverse effect on a population of a marine species or cetacean including its life cycle (for example, breeding, feeding, migration behaviour, life expectancy) and spatial distribution	The protection and restoration of the Commonwealth marine environment is supported by actions, decisions, plans and policies that collectively: 1) Identify, protect and recover areas of high conservation value, including critical habitats for marine species. 2) Manage threats and cumulative impacts that contribute to the decline of the marine environment or prevent it's recovery. 3) Prevent unacceptable or irreparable impacts on the Commonwealth Marine Environment 4) Are consistent with current and comprehensive marine park management plans and marine bioregional plans that ensure the long term sustainability of the Commonwealth marine environment: a) have measurable objectives, targets, indicators and timelines; b) apply the principles of ecosystem-based management and ecologically sustainable

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
		d) result in a substantial change in air quality or water quality (including temperature) which may adversely impact on biodiversity, ecological integrity; social amenity or human health e) result in persistent organic chemicals, heavy metals, or other potentially harmful chemicals accumulating in the marine environment such that biodiversity, ecological integrity, social amenity or human health may be adversely affected, or f) have a substantial adverse impact on heritage values of the Commonwealth marine area, including damage or destruction of an historic shipwreck. 3) Employ offsets only where it is ecologically feasible. 4) Ensure fisheries operating in Commonwealth marine areas, management arrangements are consistent with the <i>Guidelines for the Ecologically Sustainable Management of Fisheries</i> (as updated). Additional requirements in Commonwealth areas: 5) Actions must not kill, injure or take a listed threatened species or ecological community, except where an EPBC Act permit is issued.	development in a transparent process; e) be based on the application and evaluation of comparable, high quality research and data that builds scientific understanding, establishes ecological baselines and are used to monitor conservation benchmarks and support adaptive management; d) establish a comprehensive monitoring program to measure and quantify the achievement of the plan's objectives; e) be prepared and implemented in a transparent, inclusive and accountable process that has meaningfully and effectively engaged with the community; f) assess the regional cumulative impacts of a series of developments and not simply the consideration of individual development proposals in isolation; g) have networks of marine parks that protect 30% of each bioregion within National Park Zones; 5) ensure that Traditional Owners have the capacity to meaningfully engage in marine planning, protection and management; 6) have networks of marine parks that uphold the principles of

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Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
			Comprehensiveness, Adequacy and Representativeness; 7) be independently evaluated and reviewed on a regular basis. 8) where doubt or a lack of data exists, the precautionary principle is applied. 9) Ensure fisheries operating in Commonwealth marine areas, management arrangements are consistent with the Guidelines for the Ecologically Sustainable Management of Fisheries (as updated). 10)5)
Further Information		This standard should be applied in conjunction with other relevant following National Environmental Standards. Applicable policies and guidelines Marine Park management plans Marine Bioregional Plans Guidelines for the Ecologically Sustainable Management of Fisheries (as updated) EPBC Act Policy Statement 2.1 - Interaction between offshore seismic exploration and whales: Industry guidelines Significant Impact Guidelines 1.1 - Matters of National Environmental Significance	

~~This standard should be applied in conjunction with other relevant following National Environmental Standards.~~

Definitions

Offsets: measures provided to compensate, repair or replace an impacted value, including changes to the integrity, quality, condition and/or extent of habitat.

An offset is ecologically feasible where it can be demonstrated that the species or community can be restored in a timeframe commensurate with development impact OR enough space exists to undertake restoration (not ecologically or tenure constrained) OR scientific knowledge exists on how to restore the habitat.

Marine park management plans: Section 366 of the EPBC Act requires that marine parks must have management plans in place as soon as practicable after being proclaimed. Section 367 requires that management plans must provide for the protection and conservation of the parks. There are currently six management plans, one for each of the five marine park networks (the North, North-west, South-west, South-east and Temperate East networks) and one for the Coral Sea Marine Park.

Marine bioregional plans: Section 176 of the EPBC Act allows provides for the naking of bioregional plans. Marine Bioregional Plans have been prepared for marine four regions.The minister must have regard to the Marine Bioregional Plans in making any decision under the EPBC Act to which the plans are relevant.

Great Barrier Reef Marine Park

The Great Barrier Reef received World Heritage status in 1981, the first coral reef ecosystem in the world to have this distinction. The Great Barrier Reef was listed for all four natural heritage criteria and is the largest World Heritage site in Australia. World Heritage areas are places of outstanding universal value that are have been recognised by the international community for their global significance by the global community. They represent the best examples of the world's cultural and natural heritage. The Great Barrier Reef Marine Park has a special status, as it is the substantial part of a World Heritage area as well as a separate matter of national environmental significance.

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
Environmental Outcome	The environment, biodiversity and heritage values of the Great Barrier Reef are sustained for current and future generations.	The environment, biodiversity and heritage values of the Great Barrier Reef Marine Park are protected and conserved for current and future generations.	The environment, biodiversity and heritage values of the Great Barrier Reef Marine Park are protected, conserved and enhanced for current and future generations.
National Standard	1) Actions must provide for the long-term protection and conservation of the environment, biodiversity and heritage values of the Great Barrier Reef Region. To ensure this, actions must be consistent with: a) The Management Plan for the Great Barrier Reef Marine Park. b) The Objectives and Guiding Principles of the Great Barrier Reef Intergovernmental Agreement 2015. c) The Objectives of the Reef 2050 Long-Term Sustainability Plan. Requirements for the Commonwealth marine area and World Heritage and National Heritage are addressed in the Standards relevant to those MNES. These requirements will almost always be also relevant to actions relating to the Great Barrier Reef Marine Park.	The protection and conservation of the Great Barrier Reef Marine Park is supported by actions, decisions, plans and policies that collectively: 1) Take all reasonable steps to prevent or minimise harm to the environment, biodiversity and heritage values 2) Are consistent with: a) management arrangements for the Great Barrier Reef Marine Park b) the Objectives and Guiding Principles of the Great Barrier Reef Intergovernmental Agreement 2015 c) the Objectives of the Reef 2050 Long-Term Sustainability Plan, and d) all other relevant plans relating to the Great Barrier Reef Marine Park.	The protection, conservation and enhancing of the Great Barrier Reef Marine Park is supported by actions, decisions, plans and policies that collectively: 1) Are consistent with relevant plans, policies, and guidelines. 2) Do not: a) undermine the recovery of key habitats, threatened species and ecosystem processes. b) adversely impact upon the traditions or cultural connections of Aboriginal and Torres Strait Islander Traditional Owners. c) result in a deterioration of the resilience or integrity of Australian Marine Parks. 3) Take into account multiple, cumulative and long-term impacts on the condition and trends of the Great Barrier Reef Region.

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
		3) Take into account cumulative and long-term impacts on the condition of the GBR. 4) Are not inconsistent with Australia's international responsibilities in relation to the Great Barrier Reef World Heritage Area.	5) Support Australia's international responsibilities in relation to the Great Barrier Reef World Heritage Area.
Further Information		Applicable policies and guidelines Marine Park management plans Marine Bioregional Plans Guidelines for the Ecologically Sustainable Management of Fisheries (as updated) The Commonwealth Harvest strategy policy The Commonwealth Bycatch strategy Great Barrier Reef Intergovernmental Agreement 2015 Reef 2050 Long-Term Sustainability Plan Reef 2050 Water Quality Improvement Plan 2017-2022 Reef 2050 Plan Cumulative Impact Management Policy Reef 2050 Plan Net Benefit Policy EPBC Act Referral Guidelines for the Outstanding Universal Value of the Great Barrier Reef World Heritage Area Statutory Zoning Plan for the GBR The Retrospective Statement of Outstanding Universal Value for the Great Barrier Reef	

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Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
		Strategic Assessment for the Great Barrier Reef 2014 Great Barrier Reef Outlook Report 2019 Reef 2050 Long-Term Sustainability Plan Australian Heritage Database Additional policies, plans and position statements are available from the Great Barrier Reef Marine Park Authority	

Protection of the Environment from Nuclear Actions

Australian Government is committed to maintaining high levels of radiation protection, and of nuclear safety and security in Australia and around the world. Nuclear actions are defined under section 22 of the EPBC Act.

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
Environmental Outcome	Nuclear actions (including uranium mining and radioactive waste management) are undertaken in a manner that protects the community and the environment.	The community and the environment are protected from the harmful effects of radiation and radioactive material that may result from nuclear actions .	The community and the environment are protected from the harmful effects of radiation and radioactive material through nationally consistent approaches to radiation and nuclear regulation.
National Standard	4)1) Actions, including mitigation and management measures must be consistent with the codes for nuclear activities developed by ARPANSA^a.	The protection of the community and the environment from the harmful effects of radiation and radioactive material is supported by actions, decisions, plans and policies that collectively: 1) Are consistent with the ARPANSA national codes for radiation protection, and provide a evidence base and graded approach to assessment, mitigation and management of radiation risks. 2) Consistent with the national codes, ensure that mining and mineral processing actions that meet or exceed the radioactivity level prescribed in EPBC Act regulations provide and implement a full life of mine and closure plan, including: a) progressive rehabilitation strategies and targets designed to protect the community and environment from residual risks of radiation and radioactive material b) final landform and land use that reflects the lowest possible residual impact on the community and environment from residual risks of radiation and radioactive material, including elimination of voids and	The protection of the community and the environment from the harmful effects of radiation and radioactive material is supported by actions, decisions, plans and policies that collectively: 1) Ensure planned exposure to radioactive materials is undertaken consistently with the Commonwealth's radiation protection and safety regulations amd codes, reflecting national and international best practice.

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Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
		out-of-pit waste rock dumps and tailings storage facilities where these have demonstrable residual impacts, and c) independent assessment of the closure cost estimate of the mine, accompanied by financial assurance that the residual risks of radiation and radioactive material can be managed.	
Further Information	ARPANSA Regulatory Publications , including nuclear safety fundamentals, codes and standards	ARPANSA Regulatory Publications , including fundamental principles for radiation protection and safety, codes referenced by legislation, regulations or conditions of licence and guides that provide recommendations on how to comply.	

Definitions:

Nuclear actions are defined under section 22 of the EPBC Act as:

- d) establishing or significantly modifying a nuclear installation
- e) transporting spent nuclear fuel or radioactive waste products arising from reprocessing
- f) establishing or significantly modifying a facility for storing radioactive waste products arising from reprocessing
- g) mining or milling uranium ores, excluding operations for recovering mineral sands or rare earths
- h) establishing or significantly modifying a large-scale disposal facility for radioactive waste
- i) decommissioning or rehabilitating any facility or area in which an activity described above has been undertaken
- j) any other type of action set out in the EPBC Regulations.

Protection of water resources from coal seam gas development and large coal mining development

The Australian Government listed the ‘water trigger’ as a matter of national environmental significance in 2013, in response to community concerns regarding the impacts of coal seam gas and coal mining on water resources such as groundwaters, rivers, wetlands and springs.

The Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC) was established to provide independent scientific advice to the Australian Government Environment Minister and relevant state ministers on the potential water-related impacts of proposed coal seam gas or large coal mining developments, and to provide greater transparency in the regulatory process.

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
Environmental Outcome	No prototype developed	Protection of a water resource , which is or is likely to be significantly impacted by coal seam gas or large coal mining developments, including any impacts of associated salt production and/or salinity.	The ecosystem services provided by water resources are not adversely impacted as a result of coal seam gas and/or large coal mining developments (activities regulated under the EPBC Act).
National Standard	2) No prototype developed	The protection of water resources from the impacts of coal seam gas and large coal mining developments are supported by actions, decisions, plans and policies that collectively: 1) Ensure all relevant components of an action, plan or policy are considered together in determining its potential to impact on a water resource. 2) Use best available information and data consistent with the Data and Information NES, IESC Information Guidelines, and other relevant policies, including: k) an evidence base to enable full assessment of all risks and impacts l) baseline and impacted conditions (encompassing natural spatial and temporal variability) m) all proposed measures to address risks and impacts must be justified fully	The protection of ecosystem services provided by water resources are supported by actions, decisions, plans and policies that collectively: 1) Promote integrated management of all water resources, including accounting for the historical, current and foreseeable impacts of all relevant activities in predicting and modelling potential cumulative impacts of the action on the water resource. 2) Include: a) assessments based on best available information and data consistent with the Data and Information NES, IESC Information Guidelines, and other relevant policies b) adequate consultation with all potentially impacted communities must be consulted about the predicted impacts on water resource(s), and seek collaborative strategies to avoid or mitigate these impacts.

Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
		n) uncertainty^d associated with all risks should be quantified where possible and reduced to acceptable levels, and o) monitor, evaluate and report on the biodiversity, water quality and ecosystem functions of the water resource(s) before, during and – where legacy effects are likely – after an action. 3) Obtain and take into account independent expert scientific advice from the IESC. 4) Consider the potential multiple and cumulative impacts of the action and climate change on the water resource(s) over the full period that works or their impacts remain in the landscape (to at least 100 years). 5) Ensure <u>IESC referrals form the basis for</u> conditions within water resources, including water level/pressure and water quality, maintain (and where possible improve) ecosystem services and access by associated users. 6) Consider offsets only after all reasonable avoidance or mitigation options are exhausted. These offsets must be of sufficient environmental value, scale and ecological similarity to the impacted water resource(s) to achieve the Environmental Outcome and must remain fully protected and maintained after the action.	e) meaningful engagement with Indigenous landholders and Traditional Owners, fully respecting their traditional ecological knowledge and cultural connections 2) Are consistent with advice provided by the IESC. 3) Do not adversely affect the conditions within water resources, including water level/pressure and water quality, maintain (and where possible improve) ecosystem services and access by associated users. Ensure: a) water supply bores within the impact area continue to supply water for their intended purpose, or are made good b) no adverse effects on the function and environmental values of aquatic and terrestrial GDEs c) habitat for subterranean GDEs is maintained, and where possible, improved d) no adverse impacts to EPBC Act-listed protected matters as a result of changes to surface water discharge (quality or quantity). 3) <u>Ensure that compliance, monitoring, reporting and restoration occurs to an appropriate standard. This may include bonds that cover the likely full cost of all remedial and offset works, including full MRE of their effectiveness.</u>

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Element	Prototype 1.0 – Interim Report	Prototype 2.0 – Interim Standards based on current settings	Prototype Future State
Further Information	No prototype developed	IESC Information Guidelines, Explanatory Notes and Fact Sheets, available at: www.iesc.environment.gov.au .	

Definitions:

Development: Any activity that requires the permit or approval under the EPBC Act or accredited arrangements.

Ecosystem services: The benefits and services obtained from water resources. These include:

provisioning services (e.g. use by other industries and use as drinking water)

regulating services (such as the climate regulation or the stabilisation of coastal systems)

cultural services (including recreation and tourism, science and education); and

supporting services (e.g. maintenance of ecosystem function).

Environmental value: a quality or physical characteristic of the associated user that is conducive to ecological health, public amenity or safety. Must take into consideration relevant threatened ecological communities and species listed under the EPBC Act and their associated conservation advices and recovery plans.

Habitat: the living and non-living components of where an organism or ecological community exists.

Maintaining: level and quality of groundwater discharge remains within the bounds of natural variability

No adverse effect/s: not reaching or exceeding an approved limit, as a result of the development.

No impact: not reaching or exceeding an approved limit, as a result of the development.

Water resource (as defined by the *Water Act 2007*) means:

p) surface water or ground water; or

q) a watercourse, lake, wetland or aquifer (whether or not it currently has water in it); and,

r) includes all aspects of the water resource (including water, organisms and other components and ecosystems that contribute to the physical state and environmental value of the water resource)

Additional Future State definitions:

~~**Aquatic GDEs:** ecosystems dependent on the surface expression of groundwater, including:~~

- ~~• river baseflow systems, aquatic and riparian ecosystems that exist in or adjacent to streams (including the hyporheic zone) which are fed by groundwater~~
- ~~• wetlands – aquatic communities and fringing vegetation dependent on groundwater fed lakes and wetlands. These include palustrine and lacustrine wetlands that receive groundwater discharge, and can include spring and swamp ecosystems.~~

~~**Subterranean GDEs:** aquifer ecosystems, including stygofauna.~~

~~**Terrestrial GDEs:** ecosystems dependent on the subsurface presence of groundwater, such as wetlands, springs or swamps.~~