



National biosecurity reform agenda

Submission by
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1. Introduction

The signatories to this submission appreciate the willingness of DAFF and the National Biosecurity Committee to engage with us at an early stage in shaping the national biosecurity reform agenda. Consistent with biosecurity as a shared responsibility, we look forward to in-depth dialogue between DAFF and all signatory organisations and others across the environmental biosecurity space as the reforms are developed.

We support the intention to focus on high priority reforms to address priority strategic risks. We agree that the 6 strategic risks identified by agriculture ministers, the 7 reform themes proposed by the National Biosecurity Committee, and many of the proposed medium-term and long-term reforms are important and have significant environmental relevance.

Given the importance and broad scope of the priorities outlined in the consultation paper, we regard this submission as a preliminary contribution to the sustained, open discussions needed to build a shared understanding of the opportunities for (and constraints on) substantially strengthening environmental biosecurity.

In this submission, we do the following:

- outline why environmental biosecurity reforms should be a high priority and propose additional consultation on priority reforms to strengthen protection of the environment and First Nations cultural heritage (section 2)
- nominate the proposed reforms we consider priorities for environmental biosecurity under each of the 7 themes and propose priority actions for some of those reforms (sections 3 to 9); we do not comment on proposed reforms that are not an environmental priority
- propose an additional reform theme focused on established invasive species (section 10) and propose a few additional reform priorities (sections 8 and 9) and reform elements.

It will be important for DAFF to distinguish between reforms that are core to the work of the Environmental Biosecurity Office and additional reforms that are the focus of this process. For example, we haven't addressed reforms of the EEPL and the EEPL action plan in this submission, despite it being a high priority, because we assume this is core work.

Of the 34 reform proposals outlined in the consultation paper – as written in Table A1 of the consultation paper and copied here into Table 1 – **we consider 28 as high priorities, depending in some cases on more detail about the proposals.** As a preliminary indication of the priority we accord them, we nominate 13 as top priorities (some of which are combinations of medium term and long term proposals or new reform proposals). In Table 1, high priorities are highlighted (blue text) and top priorities are asterisked. They are also listed here (not in priority order but in order of the sections in which we provide feedback; section numbers are provided in brackets):

1. National biosecurity threat assessment (medium term) and national action plan for identified risks (long term) (s 3.1)
2. Jurisdiction uplift in preparedness (medium term) (s 3.2)
3. Updated environmental and plant response arrangements, considering consistency with animal response arrangements (medium term) (s 4.1)
4. Inclusion of containment/impact management in emergency arrangements (medium term) (s 4.2)
5. Adoption of new technologies to increase eradication efficiency (long term) (s 4.4)
6. Biosecurity recovery framework (medium term) and recovery program (long term) (s 5.1).

7. Better connected national system (medium term) and national research and innovation program aligned to priorities (long term) (s 7.1)
8. Proposed expanded reform: Integrate First Nations knowledge and skills, and citizen science (medium term) (s 7.3)
9. Address inconsistent regulations that create regulatory complexity and inefficiency (medium term and long term) (s 8.1)
10. Proposed additional reform: Improve the interpretation of the ALOP for environmental risks (medium term) (s 8.2)
11. Proposed additional reform: Strengthen national compliance and enforcement (medium term) (s 8.3)
12. Assessment of alternative funding mechanisms (medium term) and changes to funding mechanisms (long term) (s 9.1)
13. Proposed additional priority: Develop a benchmarking method to aid prioritisation (medium term) (s 9.2)

To enable more-in-depth feedback from a broader range of stakeholders, we recommend the following:

Hold collaborative online workshops for environmental and First Nations stakeholders to elicit a broader range of views about environmental biosecurity priorities. Develop a prioritised list of reforms for environmental biosecurity that are then integrated, with appropriate weighting, into the whole-of-system reform priorities. As part of ongoing engagement on the reforms, reinstitute regular, collaboratively run environmental biosecurity roundtables.

Table 1. Priority reforms for environmental biosecurity (with relevant section numbers)

Proposed medium-term reforms	Proposed long-term reforms
Preparedness theme	
Jurisdiction uplift in preparedness (s 3.2)* National biosecurity threat assessment (s 3.1)* National surveillance data sharing agreements (s 3.3) Continue the uplift of the national database for cattle, sheep and goats	On-farm and business preparedness program National action plan for identified risks and annual exercise to stress test the system (s 3.1)* National surveillance data sharing legislative change and platform (s 3.3) National traceability system for plant products
Response theme	
Updated environmental and plant response arrangements, considering consistency with animal response arrangements (s 4.1)* Approach to address broader issues of emergency response arrangements funding, gaps, flexibility and scope (s 4.3) Inclusion of containment/impact management in emergency arrangements (s 4.2)* Aquatic pest and disease response arrangement (s4.3)	Changed or new arrangements to address broader issues (s 4.3) Adoption of new technologies to increase eradication efficiency (s 4.4)*
Recovery theme	
Biosecurity recovery framework (consistent with the National Principles for Disaster Recovery) which identifies existing support mechanisms and programs (s 5.1)*	Recovery programs for biosecurity, drawing on existing national arrangements, if required (s 5.1)*
Workforce capability and capacity theme	

Forecast of biosecurity workforce needs, including market analysis to identify skills shortages (s 6.1) Biosecurity workforce strategy to guide education, training and vocational organisations (s 6.2)	Initiatives to deliver workforce strategy and address workforce gaps (s 6.2)
Operational capability and capacity theme	
Better connected national system, where research and innovation are shared and not duplicated (s 7.1)* Integrate First Nations knowledge [and skills], citizen science, and frontline insights (s 7.3)* Have better and earlier data sharing supported by governance (s 7.4) National capability assessment, including infrastructure and technology (s 7.2)	National research and innovation program aligned to priorities which supports accelerated adoption of research (s 7.1)* Address legislative [and other] barriers to data sharing and systems-supported data sharing (s 7.4) Integrate capability planning into investment decision making (s 7.2)
Legislation and regulation theme	
Address inconsistent regulations that create regulatory complexity and inefficiency (s 8.1)* Address inconsistent regulations that impede domestic trade Proposed additional reform: Strengthen environmental and cultural heritage protection by improving the interpretation of Australia's ALOP (s 8.2) Proposed additional reform: Strengthen national compliance and enforcement (s 8.3)	Address inconsistent regulations that create regulatory complexity (s 8.1)* Address inconsistent legislation that impedes domestic trade
Funding theme	
Principles for national cost sharing across preparedness, surveillance, response, and recovery (s 9.3) Assessment of alternative funding mechanisms (s 9.1)* Proposed additional priority: Develop a benchmarking method to aid prioritisation (s 9.2)*	Changes to national cost sharing, if required (s 9.3) Changes to funding mechanisms, if required (s 9.1)*
Established invasive species (proposed additional theme)	
Proposed additional reform: Develop principles and processes for national coordination of established invasive species management (s 10.1) Proposed additional reform: Embed environmental biosecurity in disaster preparedness, responses and recovery (2 10.2)	

2. Why environmental biosecurity should be a cross-cutting priority under all themes

One strategic risk overlooked by Australia's agriculture ministers is the accelerating decline, degradation and collapse of Australian biodiversity – much of it due to invasive species. The cost of repairing Australia's environmental damage already exceeds what the nation is prepared to pay: recovering nationally listed threatened species was recently calculated under the National Environmental Science Program as requiring \$583 billion a year, about 90% due to the costs of mitigating invasive species threats ([URL](#)). Commonwealth, state and territory budgets provide only a small fraction of what recovery requires.

Agricultural industries also face costly and growing invasive threats. But while environmental decline is accelerating and far outpacing recovery, agricultural industries continue to grow – edging close to the industry's goal of \$100 billion in annual farm gate output by the year 2030. This divergence reflects some of the major differences between agricultural and environmental biosecurity, including the following:

	Agriculture	Natural environment
Impacts	Typically reversible, transient or manageable	Often irreversible, or too difficult and expensive to mitigate
Assets at risk	Replaceable/substitutable assets – several dozen important crop and livestock species	Irreplaceable assets – hundreds of thousands of unique species and ecological communities
Resources available	Commercial incentives to drive research, preparedness, responses and management	Largely reliant on public funding and voluntary community contributions

How should Australia's biosecurity agencies respond to accelerating environmental decline?

Recognise the importance and distinctiveness of effective environmental biosecurity: Australia's natural environment is central to the nation's identity, culture, economy and social wellbeing, and its protection is a matter of national interest. The recent emergence of environmental biosecurity as a recognised priority, with its own institutional architecture within DAFF, was a major reform. The ongoing challenge is to extend that architecture to environmental agencies and to biosecurity agencies in other jurisdictions, and to design systems to address the distinctive challenges of environmental protection, including poor knowledge of environmental risks, ecological complexities, cumulative pressures and the potential for irreversible losses – not just retrofit existing policies, priorities and funding mechanisms.

Ensure that a wide range of environmental voices are heard: The priority reforms agreed by Australia's governments are intended to drive biosecurity reform until 2032. Their development warrants deep engagement of environmental and First Nations sectors, and a collaborative process – drawing on the views and expertise of a wide range of stakeholders, including through workshops focused on environmental and cultural heritage reform priorities and, as the reforms are progressed, through the re-institution of regular, collaboratively run environmental biosecurity roundtables.

Accelerate the reform agenda for environmental biosecurity: Since the important reforms instituted in response to the 2017 Craik review, including the establishment of Environmental Biosecurity Office, environmental reform has slowed. Environmental biosecurity remains well short of parity with other biosecurity sectors and continues to be a secondary priority for most biosecurity agencies. The priority reforms identified in this submission – from improved surveillance to coordinated management of established invaders – require investment proportional to the scale of the problem, not constrained by what has historically been allocated to environmental biosecurity.

Recommendation

Hold collaborative online workshops for environmental and First Nations stakeholders to elicit a broader range of views about environmental biosecurity priorities. Develop a prioritised list of reforms for environmental biosecurity that are then integrated, with appropriate weighting, into the whole-of-system reform priorities. As part of ongoing engagement on the reforms, reinstitute regular, collaboratively run environmental biosecurity roundtables.

3. Preparedness theme

Aims (from consultation paper): Establish a more strategic, nationally aligned approach to preparing for biosecurity threats, with a focus on strengthening national preparedness capability, improving surveillance and data sharing, and enhancing traceability.

3.1 Undertake a national biosecurity threat assessment (medium term) and prepare a national action plan (long term)

Aims (consultation paper):

- *Medium term:* Develop an assessment of national biosecurity threats to inform risk-based preparedness, planning and decision-making.
- *Long term:* Develop a national action plan for the risks identified in the national biosecurity threat assessment, including an annual exercise with relevant stakeholders to improve coordination and ensure readiness for biosecurity threats.

General comments: We are not wholly certain about the intended scope of this proposed reform. We initially assumed it was focused on invasive threats, but were told it was instead about broader trends and processes that impede effective biosecurity. On this basis, we consider both the threat assessment and action plan as a top priority and recommend the assessment be tackled systematically for different threat categories, with a strong focus on the distinctive challenges and impediments for environmental biosecurity. Without attempting to be comprehensive, we recommend a focus on the following (not in any particular order):

- **Emerging and increasing pathway threats:** These include the increasing ease and volume of online trade (with demand boosted by global trends such as desires for unusual pets and garden plants) and the multiplication of bridgeheads from which new invaders can travel to Australia as they spread around the world. Aligned with this is the increasing challenge for other countries to detect and document potential invasive risks in their territory (a problem of particular concern for environmental biosecurity, because most environment-specific risks are not notifiable).
- **Genetic variability:** The genetic reassortment of avian influenza viruses as different lineages interact with each other highlights a growing threat that tends to be neglected in biosecurity risk assessment – the exacerbated invasive risk due to increasing genetic diversity of invaders.
- **Cumulative pressures on the Australian environment:** Australia's native species are becoming increasingly vulnerable to invasive species threats due to the interacting impacts of multiple threats, including new invasive species and climate change.
- **Declining affordability:** As invasive species that are already present in Australia establish and spread, management and environmental recovery using current techniques are becoming increasingly unaffordable. The costs of successful prevention and interdiction of new invasives are also rising.
- **Threats to social licence:** Community resistance to some biosecurity programs, and social media amplification of this, is likely to become an increasing impediment.
- **Workforce limitations:** At a time when invasive risks and threats are growing, some jurisdictions are not only failing to increase investment but are shrinking biosecurity and environmental budgets (section 6). The H5 bird flu response is likely to reveal capacity deficiencies when there are multiple outbreaks at the same time.
- **Competition for biosecurity funding and reform focus:** Since the elevation of environmental biosecurity as a priority (arising from the Craik review), some industry bodies and proponents,

including within government, have opposed increasing environmental investment on the basis that resources will be diverted from agricultural priorities. Environmental biosecurity funding needs to be substantially increased to address both the historical neglect and rising threats, in recognition of the irreplaceable nature of native biodiversity assets.

3.2 Improve jurisdiction preparedness (medium term)

Aim (consultation paper): Build on a national preparedness framework (due for completion in 2026) to strengthen biosecurity preparedness across jurisdictions by supporting targeted capability uplift.

General comments: There are big gaps and challenges for environmental preparedness across all governments, in both biosecurity and environmental agencies. The finalisation of the national preparedness framework, intended this year, should include the deep engagement of environmental agencies and the NGO sector to ensure an appropriate focus on the arrangements needed to strengthen environmental preparedness. Due to a history of neglect and far fewer resources than for industry preparedness, environmental preparedness, including surveillance, lags in all jurisdictions. As one indicator of that lag at a federal level, only about 10 detailed response plans¹ for priority environmental risks have been prepared compared to over 130 for plant health and animal health. This reform area is likely to require an ongoing focus beyond the medium term.

Proposed priority reforms:

- Develop environmental response plans for priority high-risk species / species groups, including for species not yet in certain jurisdictions as well as those not in Australia .
- Articulate and apply the lessons learned from preparing for H5 bird flu preparedness to prepare for other significant environmental threats such as polyphagous shot-hole borer.
- Clarify and strengthen the role of environmental agencies in preparing for environmental incursions, including by formal agreements with biosecurity agencies and the allocation of resources to enable this work.
- Appoint a chief environmental biosecurity officer within each state/territory environmental agency to drive preparedness uplift for environmental incursions and strengthen collaboration with biosecurity agencies.
- Audit current surveillance programs across the country and identify the gaps to fill for priority environmental risks.

3.3 Establish surveillance data-sharing agreements (medium term), make legislative changes and develop a national platform (long term)

Aims (consultation paper):

- *Medium term:* Establish national data-sharing agreements to improve access to, and use of, biosecurity surveillance data across jurisdictions and stakeholders.
- *Long term:* Build on data-sharing agreements to progress legislative change to support national surveillance data sharing and develop a national platform (or equivalent modern, interoperable

¹ There is no consistent template for, or location for, response plans relevant to environmental risk species. We are aware of detailed plans or guidelines for snakes, Asian black-spined toad, marine crabs, white nose syndrome, certain mussel species, didymo, Xylella, crayfish plague, viral haemorrhagic septicaemia, withering syndrome of abalones (many developed because they are industry priority species).

technologies, including consideration of artificial intelligence) to ensure coordinated surveillance data sharing.

General comments: We agree this is a high priority, to increase the efficiency of biosecurity, including emergency responses. It should be part of a broader commitment to improve data sharing and transparency. Current barriers include:

- different jurisdictional and sector-based systems, lack of interoperability between platforms
- restrictions on data-sharing, including under emergency response agreements and legislation
- inconsistent data standards
- restricted access to environmental datasets, including those compiled with public funding.

Environment Information Australia was established to collect and report on environmental data and trends. It is currently developing a national threats spatial planning tool, using available environmental and threats datasets. This could be a useful platform for mapping all priority biosecurity threats.

Proposed priority reforms (also see section 7.3):

- Develop a comprehensive national database for data relevant to environmental and cultural heritage protection, integrating government, scientific, Indigenous and citizen science datasets
- Develop and apply consistent mapping and reporting standards
- Facilitate real-time reporting across jurisdictions.
- As a default, make data open access.

4. Response theme

Aims (from consultation paper): Support a national response system that is faster, harmonised, adaptable and evidence driven, including alignment between response frameworks, addressing gaps in funding, flexibility and scope, and better integrating containment and impact management activities.

4.1 Update existing emergency response arrangements (medium term)

Aims (consultation paper): Support updates to the environmental and plant response arrangements, where identified through the review of current response arrangements which are due for completion in 2026 and potentially also align with other response arrangements.

General comments: This is a high-priority reform area. All deeds should be reformed to strengthen arrangements for environmental responses in a consistent way. Many significant environmental responses are conducted not under NEBRA but either off-deed or under an industry deed. We strongly object to the exclusion of environmental, First Nations and other community stakeholders from the review of the EPPRD, despite this being the deed under which responses to myrtle rust and polyphagous shot-hole borer have been managed.

Proposed priority reforms: Revise all 3 deeds, and draft any new deeds, to optimise responses to environmental incursions, regardless of which deed they fall under. The priorities include the following (see ISC's submission made jointly with other ENGOs in response to the NEBRA review [HERE](#) for more recommendations and details):

- Remove the \$5 million funding limit from the NEBRA.
- Increase the transparency of environmental responses by requiring the publication of assessments, recommendations, decisions, operational guidelines, annual reports and summaries of reviews.
- Increase the accountability of responses by expanding the scope of the Inspector General of Biosecurity to enable reviews of environmental response decisions and responses.
- Create permanent stakeholder advisory committees comprising environmental NGOs, First Nations representatives, NRM bodies and local government – to be consulted on all decisions and recommendations concerning relevant emergency responses.
- Incorporate culturally appropriate criteria for response decisions, including on national significance, to be co-developed with First Nations stakeholders.
- Develop and fund a formal NEBRA custodian role, to be filled by the Australian Chief Environmental Biosecurity Officer.
- Where industry deeds are triggered for an incursion with significant environmental impacts, ensure the relevant consultative committee includes environmental experts, engages with the NEBRA stakeholder committee and assesses environmental impacts using updated NEBRA criteria.
- Establish a formal mechanism for reconsidering environmentally significant incursions under NEBRA when a response under an industry deed has been declined or abandoned. Allow for a return to an emergency eradication response following a transition to management phase, where new research, new control methods, or a revised benefit-cost analysis make eradication feasible or warranted.
- Require that decisions relating to environmentally significant incursions under NEBRA, EADRA and EPPRD apply consistent ecological risk frameworks that recognise that ecological losses can be permanent and incorporate consideration of comprehensive ecological consequences, the precautionary principle, inter-generational equity, and ecological timescales.
- Build a culture of continual learning and excellence.

4.2 Expand response arrangements to include containment and impact management (medium term)

Aims (consultation paper): Consider the incorporation or exclusion of time-limited containment/impact management into emergency arrangements where eradication is not feasible to potentially contain impacts until treatment or resistance is available.

General comments: Containment and management of nationally significant new and emerging environmental threats warrant national coordination and cost-sharing arrangements. It is neither efficient nor effective to leave these to individual jurisdictions once an emergency response has been rejected or ceased. The proposed end points of 'treatment or resistance' becoming available seem oriented more to agricultural than environmental incursions. While some time limitation will be necessary, we recommend timeframes and end points be flexible to enable incursion-specific arrangements. If not incorporated into the existing deeds, an additional agreement or agreements should be developed, as was done for the H5 bird flu agreement. This reform should be integrated with the proposed recovery reform (section 5).

Proposed priority reforms: Remove the 12-month cap on the transition to management phase in NEBRA, extend NEBRA's scope to provide for nationally coordinated, cost-shared containment and impact management for environmental incursions where this is in the public interest. If it cannot be accommodated under NEBRA, develop a similar nationally cost-shared agreement.

4.3 Expand response arrangements to address broader issues (medium term) and adopt changed or new arrangements (long term)

Aims (consultation paper):

- *Medium term:* Develop an approach to address challenges with the current response arrangements and consider addressing gaps such as for aquatic production pests and diseases.
- *Long term:* Support changes to existing arrangements or develop new arrangements to address broader issues not covered by the medium-term reforms.

General comments: ISC's joint submission in response to the NEBRA review identifies broader issues in emergency response arrangements, including funding issues (see section 4.1 for some relevant recommendations). Other major challenges to effective responses include:

- lack of effective technologies and techniques for eradicating certain new types of incursions (e.g. polyphagous shot-hole borer) (see section 4.4)
- maintaining social license for response efforts (section 3.1)
- suboptimal management of some emergency responses due to inexperience or lack of this type of management expertise within state/territory agencies charged with managing responses; one reason island eradications are so effective is that experienced eradication experts typically advise or are deployed in each program.

Any new deed addressing aquatic production pests and diseases should be used as an opportunity to ensure industry deeds are also optimised for responses to incursions with significant environmental impacts, including by incorporating improved transparency, accountability, stakeholder/community engagement, decision-making criteria and risk assessment frameworks (as outlined in section 4.1).

Proposed priority reforms:

- Enable funding for research to be cost-shared under emergency response deeds when needed to develop effective responses (section 4.4)
- Develop guidelines for response management that include recommended institutional arrangements to maximise effectiveness and efficiency .
- Establish a specialist response management taskforce to assist jurisdictions to more effectively manage emergency responses.
- Ensure any new deed addressing aquatic production pests and diseases is optimised for responses to incursions with significant environmental impacts (section 4.1).

4.4 Develop and adopt new technologies (long term)

Aim (consultation paper): Support adoption of new technologies within emergency response arrangements to improve eradication efficiency.

Additional proposed aim: Also support the development and adaptation of new technologies and techniques both within emergency response arrangements and as part of preparedness activities.

General comments: We propose expanding this reform proposal to include the development and adaptation of new technologies as well as their adoption in emergency responses. One of the benefits of long-term responses such as that for red imported fire ants has been the development, adaptation and deployment of new technologies and methods for ant eradications. This proposal is particularly important for environmental eradications given the difficulty of controlling species once they are established in the wild.

Proposed priority reforms:

- Support research into eradication technologies and techniques as an integral part of many emergency responses.
- Undertake an audit of Australia's technological capacity to eradicate priority environmental invasive risk groups and identify priorities for research as part of preparedness.

5. Recovery theme

Aims (from the consultation paper): Support national approaches to recovery by improving coordination, consistency and capability across the system, including developing a biosecurity recovery framework and considering the need for recovery programs and mechanisms to support those affected by biosecurity incursions.

5.1 Develop a recovery framework (medium term) and consider recovery programs (long term)

Aims (consultation paper):

- *Medium term:* Develop a biosecurity recovery framework (consistent with the National Principles for Disaster Recovery) which identifies existing support mechanisms and programs.
- *Long term:* Consider biosecurity recovery programs if required, building on the recovery framework.

General comments: A national biosecurity recovery framework could fill a significant biosecurity gap. We agree that recovery should be treated as part of a continuum of actions to prevent and effectively respond to incursions. It should include a strong focus on recovery of environmental and cultural heritage values.

Other than the limited recovery arrangements for industries in emergency biosecurity response deeds, there are no formal frameworks for supporting recovery from significant biosecurity incidents, and none that explicitly support recovery of environmental and cultural heritage values. Environmental agencies and First Nations and environmental land managers are often left without support to attempt to limit damage to and restore environmental and cultural heritage values. During the transition to management for myrtle rust, for example, while industry recovery was assisted by projects to investigate resistant cultivars of lemon myrtle, assist the hardwood plantation industry to manage impacts and screen fungicides, there was no funding for environmental priorities.

While the *National principles for disaster recovery* are useful for guiding approaches, planning and decision-making, they primarily focus on the social and economic impacts of disasters and neglect environmental and cultural heritage impacts. While we support the integration of these principles into the proposed biosecurity recovery framework, they should be expanded to include a strong focus on environmental and cultural heritage recovery.

The recovery of what is irreplaceable – e.g. unique species and ecological communities – should be accorded high priority. But the challenges, timeframes and potential for restoration of environmental and cultural heritage values will differ from those of commercial enterprises, requiring an ecologically informed recovery framework, a willingness to invest in monitoring and research, and collaborations with the agencies, groups and stakeholders best placed to undertake recovery work.

Proposed priority reforms:

- Include a strong focus on environmental and cultural heritage recovery in the proposed recovery framework, with provision for long-term cost-sharing arrangements.
- Clarify the roles and responsibilities of different levels of government, agencies, industry, and community in the delivery of recovery programs. Develop governance guidelines to facilitate partnerships and co-leadership by affected communities and stakeholders.
- Develop a method to prioritise the allocation of funding and resources to recovery programs under the national biosecurity funding framework, based on public benefits, not just quantifiable economic impacts to business (see section 3.2).

6. Workforce capability theme

Aims (from consultation paper): Better integrate workforce planning with operational priorities, align evidence-based workforce actions between jurisdictions, industry and training providers, and provide clear education and training pathways to create a consistently high national capability standard. Address workforce gaps and improve the ability to deploy capability where it is needed, including regional, remote and surge contexts.

6.1 Forecast biosecurity workforce needs (medium term)

Aims (consultation paper): Analyse biosecurity workforce needs to identify shortages and forecast future workforce requirements.

General comments: This is a high priority for environmental biosecurity. Workforce shortages are a significant barrier to invasive species project success. Areas of shortage include eradication and management programs, local government functions, First Nations programs and remote work. Remote regions face particularly severe workforce shortages, severely limiting threat mitigation. In the 250,000 km² Alinytjara Wilurara region (SA), bigger than 60% of the world's countries, there are just 2 reliable contractors available to assist Indigenous rangers to manage the catastrophic buffel grass threat.

Workforce needs should be analysed based on (a) current/projected program funding and (b) the workforce actually needed to achieve effective biosecurity. Due to funding gaps, there is a substantial difference between these. Defence and health departments have clear data about the workforce types and numbers needed to discharge priority functions – we need the same for biosecurity functions across the spectrum.

One task is to ensure appropriate recognition for different biosecurity roles in work classifications. For example, as proposed by the Australian Land Conservation Alliance ([URL](#)), changes are needed by the Australian Bureau of Statistics to recognise a specific Invasive Species / Biosecurity Officer role under the current role classification 2443 - Environmental Conservation Professionals in ABS Occupation Standard Classification for Australia 2027. There are existing shortages for ecologists and environmental scientists.

6.2 Develop a workforce strategy (medium term), deliver the strategy (long term)

Aims (consultation paper):

- *Medium term:* Deliver a national biosecurity workforce strategy to set out how Australia will build, retain and deploy biosecurity capability across government, industry and the community, including education and training pathways.
- *Long term:* Develop initiatives to support the delivery of the national biosecurity workforce strategy and address any identified gaps. This could include establishing an implementation plan, developing priority cohort pathway workplans, and improving national workforce metrics and forecasting.

General comments: The strategy should include a strong focus on environmental and cultural heritage programs, including education, training, vocational support, rural and remote needs, housing, remote work salary package adjustments, organisation role sharing and tech capacity uplift investments. It also needs a focus on supporting long-term career stability and development. One goal should be harmonised accreditation for professional pest and weed control professionals, with licensing and registration arrangements that enable cross-jurisdictional deployment.

A major barrier is insufficient and often short-term funding for biosecurity programs. In remote regions, secure, long-term funding for Indigenous Ranger programs is needed to fill critical gaps in surveillance, data collection, and on-ground management.

7. Operations capability and capacity theme

Aims (from consultation paper): Improve the timeliness of data sharing, better align and prioritise research and innovation, and strengthen the national approach to capability planning – to support more informed decision-making, enable better sharing of data and knowledge, and build a clearer national picture of operational capability needs.

7.1 Develop a coordinated national research and innovation program (medium term) and deliver against priorities (long term)

Aims (consultation paper):

- *Medium term:* Build on the national research and innovation priorities to develop a coordinated program and consider pathways to accelerate research adoption.
- *Long term:* Deliver against research and innovation priorities, including building on existing partnerships to develop mechanisms to ensure investment in research is coordinated.

General comments: We support these reforms, as long as they focus on addressing research and innovation priorities assessed transparently by a method that accords appropriate weighting to environmental priorities. We disagree with a primary focus on ‘building on existing partnerships’ where that will entrench existing biases for industry-focused research. Existing partnerships are dominated by those with industry, e.g. 15 rural research and development corporations, which receive a significant proportion of research funding.

The relative neglect of environmental research priorities is exemplified by (a) successive 10-year environmental biosecurity research plans that have mostly not been implemented and (b) the limited \$0.85 million allocated to the Environmental Biosecurity Project Fund, unchanged since its establishment in 2018.

Australia’s failure to mitigate invasive threats is not due to a lack of dedication or scientific talent. Innovation is frequently entangled in bureaucracy or remains siloed. Projects frequently stall after a proof-of-concept stage, unable to secure the long-term investment needed to move from a promising idea to a field-tested solution. The success of COVID-19 vaccine programs provides a stark contrast. The rapid development of vaccines was only one part of the mission. The other, equally crucial part was the ability to address the ‘last mile’ challenges of mass production, resilient supply chains, and effective deployment. For conservation, success is not merely inventing a new bait or trap but also shepherding that innovation through field-testing, regulatory approval, production and widespread adoption.

Proposed priority reforms:

- Develop a transparent method to prioritise research and innovation priorities that accords high weight to environmental and other public benefit outcomes.
- Ensure high priority is accorded to accelerating the development of biological controls for entrenched invasive species lacking control methods.
- Ensure high priority is accorded to adopting technologies to strengthen biosecurity for environmental pathogens, including genomic methods to improve pathogen detection and surveillance.
- Develop a lab-to-landscape innovation ecosystem focused on solving high-priority environmental biosecurity challenges that includes:
 - invasive species hackathons, challenges and innovation prizes
 - end-to-end support from research through production to adoption

- integrated solutions recognising no single ‘silver bullet’ exists
- radical collaboration embracing best ideas regardless of origin.

7.2 Conduct a national capability assessment (medium term) and integrate capability planning into investment decision-making (long term)

Aims (consultation paper):

- *Medium term*: Assess the operational capabilities of the national biosecurity system, including infrastructure and technology, to identify capabilities or specific activities for prioritised resourcing.
- *Long term*: Embed capability planning into biosecurity investment and decision-making, building on the national investment priorities framework due for delivery in 2026, to ensure funding priorities are aligned with capability needs.

General comments: We support this as a high priority and look forward to engaging in the proposed assessment. As a preliminary contribution, we identify the following as potential gaps (some of which overlap with proposals in other sections):

- Technology: for example, genomic techniques for pathogen detection, web-scraping technologies for detecting illegal online trading, AI-assisted detection technologies, control methods for
- People and skills: for example, environmental biosecurity needs more ecologists and social scientists; emergency responses need more specialists in eradication programs (section 4)
- Academic work: many aspects of biosecurity, particularly environmental biosecurity law and policy, lack a strong complementary focus in academia

7.3 Proposed expanded reform: Integrate First Nations knowledge and skills, and citizen science, into biosecurity operations (medium term)

Aim (consultation paper): Support further integration of Indigenous knowledge, citizen science, and frontline insights into future biosecurity operational activities as appropriate.

Additional proposed aims (Invasive Species Council): Strengthen the role of First Nations peoples and citizen scientists in biosecurity operations, including surveillance and monitoring. Integrate cultural heritage protection as a goal across all biosecurity functions.

General comments: Integrating the knowledge, both traditional and modern, of Australia's First Nations people and supporting their involvement in biosecurity should be a high priority – in recognition of the depth and scope of their knowledge, the vast areas of land under Indigenous ownership and management (25% of Australia's land area), the outstanding cultural and environmental values at stake, and the utility of their knowledge and skills for biosecurity. To ensure respectful integration of knowledge and support the greater involvement of First Nations people in biosecurity, we recommend the appointment of an independent, statutory Commissioner for Country.

Citizen science offers the potential to substantially and cost-efficiently expand the surveillance footprint and help build a culture of shared responsibility. It is likely that community reports constitute the majority of first reports for many groups of invasive species. In south-east Queensland, they account for more than 70% of red fire ant nest detections. One limitation of the data being gathered is the lack of coordination between programs and interoperability of the platforms.

Proposed priority reforms:

- Appoint a national coordinator for environmental biosecurity data (potentially hosted by Environment Information Australia) to drive the compilation, standardisation and integration of data from community and other sources.

- To support the integration of First Nations knowledge and strengthen protection of cultural heritage:
 - support the appointment of an independent, statutory Commissioner for Country at the federal level to champion biodiversity, oversee cultural knowledge exchanges, and drive the compilation, standardisation, and integration of biosecurity data from First Nations sources
 - establish co-designed arrangements for data sharing by and with First Nations peoples to ensure that Indigenous knowledge is used respectfully and effectively and establish a community reporting platform
 - provide long-term funding for ranger groups to undertake training and development, conduct surveillance and collect data
 - in collaboration with First Nations people, develop culturally appropriate methodologies and indicators for comprehensively assessing threats to First Nations cultural heritage and the impacts of invasive species on Country.
- To expand the utility of citizen science and integrate data:
 - develop standardising guidance for mobile reporting tools (e.g. a unified mobile app or upgrade of existing platforms) and guidelines to assist with parameters required to integrate data sources
 - include a stronger focus in funded Landcare functions on surveillance and citizen science
 - support biosecurity bioblitzes in high-risk zones (e.g. peri-urban borders, port areas and transport hubs) during peak risk seasons to catch early-stage incursions.

7.4 Improve data sharing (medium term) and address legislative and other barriers to data sharing (long term)

Aims (consultation paper):

- Develop governance arrangements to support sharing of biosecurity data between jurisdictions and other stakeholders within existing legislative arrangements.
- Address legislative barriers and strengthen systems to enable timely and accurate biosecurity data sharing.

General comments: We support a more open approach to data sharing. Barriers to this appear to be particularly high in biosecurity and they are not just legislative. A cultural shift and commitment to greater transparency is needed to underpin these proposed reforms. Other barriers are departmental and/or disciplinary – for example AusPestCheck is not interoperative with the Atlas of Living Australia, the main portal for biodiversity information.

Restrictions on data sharing are particularly inappropriate for publicly funded projects and programs, for example, those under emergency response agreements (except where there are identified trade sensitivities). In addition to removing data-sharing barriers to facilitate biosecurity functions such as emergency responses, we recommend the proactive facilitation of data sharing with environmental agencies, research organisations and environmental and First Nations stakeholders. In particular, we recommend a close collaboration with Environment Information Australia to drive the collection, compilation, analysis and dissemination of information relevant to environmental biosecurity.

8. Legislation and regulation theme

Aims (from consultation paper): Address inconsistencies that create regulatory complexity and inefficiency across the biosecurity system – including improve the alignment of regulatory requirements to make compliance clearer and reduce regulatory barriers that can impede domestic trade.

8.1 Address inconsistent legislation and regulation (medium and long term)

Aims (consultation paper): Address regulatory changes to reduce inconsistency and support a more efficient regulatory environment.

General comments: We support addressing ‘inconsistent regulations’ as a priority, but only for the purposes of strengthening biosecurity and environmental protection. Any reforms should recognise that some regulatory inconsistencies are beneficial and serve important functions and goals – e.g. assessments of live imports under the EPBC Act and biosecurity regulations that protect unique regional values.

One high priority is to address the inconsistencies between federal, state and territory laws that reward illegal imports. Certain species groups such as plants, aquarium fish and invertebrates that are not permitted imports are nevertheless kept or sold once they are present in Australia because of inconsistencies with most state/territory laws. To reduce the risks of smuggling – one of the highest-risk pathways for new invasive plants, animals and pathogens – Australian jurisdictions should align their frameworks to ensure that what is illegal to import is also clearly illegal to keep and sell in Australia, unless it was previously lawfully imported. The recent seizure of 100,000 exotic cockroaches from alleged Bathurst breeder ([URL](#)) exemplifies the problems of inconsistent regulation and the potential for adverse environmental outcomes. We understand the breeder was allegedly advised the invertebrates were lawful to own and sell in NSW. No charges have been laid by DCCEEW in relation to this matter.

We also support greater ‘harmonisation of regulations between jurisdictions’, if it involves the consistent adoption of best practice biosecurity measures (e.g. enforceable general biosecurity duties/obligations in all state and territory laws), and more consistent prevention-focused regulation of the sale, keeping and control of invasive plants and animals. Harmonisation would contribute to more efficient trade and facilitate compliance by businesses and consumers.

Proposed priority reforms:

- Address inconsistencies in regulation that reward smuggling, ensuring that what is illegal to import is also illegal to keep and sell in all states and territories, except if previously lawfully imported.
- Australia’s governments commit to harmonising state and territory biosecurity laws and regulations, including universal adoption of enforceable general biosecurity duties and consistent regulation of the sale, keeping and control of invasive plants and animals to strengthen biosecurity.

8.2 Proposed additional reform: Strengthen environmental and cultural heritage protection by improving the interpretation of Australia’s ALOP (medium term)

Aims (Invasive Species Council): Review and revise the interpretation and application of Australia’s ALOP for environmental and cultural heritage risks.

General comments: Foundational to effective environmental biosecurity is ensuring that Australia’s ALOP – a high level of sanitary and phytosanitary protection aimed at reducing risk to a very low level, but not to zero – is appropriately interpreted and applied to comprehensively assess relevant risks in ways that achieve a ‘high’ level of SPS protection consistent with community expectations. There is little public guidance on how the ALOP is interpreted for environmental risks. The 2008 Beale review noted a lack of

clarity about what the ALOP means ([URL](#)) and the 2015 senate report on environmental biosecurity said a lack of definition makes it difficult to determine ‘what level of incursions and of what type might be deemed to be acceptable’ ([URL](#)). The Australian Government has said the ALOP is ‘based on a societal value judgment’, that it is, in effect, ‘the community’s attitude to risk taking reflected in government policy’. Based on recent import risk analyses, including that for psittacine birds, we and other environmental stakeholders and experts have a very low level of confidence in the current interpretation of the ALOP. The risk analyses also lack a focus on important elements of risk, including the costs and difficulty of recovering native species and ecological communities from the impacts of invasive species (whereas economic impacts on businesses are included) and the impacts on First Nations cultural heritage. Also of concern is the approach to uncertainty, with precaution rarely exercised despite the potential for doing so (consistent with article 5.7 of the SPS Agreement, WOH guidelines ([URL](#)) and for assessments conducted under the EPBC Act).

Proposed priority reforms:

- As a high priority, commission an independent review of the interpretation and application of the ALOP for risks to the natural environment and cultural heritage, which includes deep consultation with environmental, First Nations and other relevant stakeholders about how best to reflect the community’s attitude to environmental and cultural heritage risk in biosecurity policy.
- Develop risk assessment guidelines that clearly explain how the ALOP is interpreted for environmental and cultural heritage risks, the different elements of risk that should be assessed, and the approach to uncertainty about these risks.

8.3 Proposed additional reform: Strengthen national compliance and enforcement (medium term)

Aim (Invasive Species Council): Strengthen pre-border to post-border biosecurity compliance and enforcement.

General comments: A recent review by the Inspector-General of Biosecurity ([URL](#)) highlighted DAFF staff concerns about ‘a lack of consequence for repeat offenders; and inconsistent enforcement due to perceived political pressure to prioritise trade facilitation over robust regulation’. Feedback received by the IGB also pointed to a failure to address illegal import loopholes in key pathways (cargo and mail) and enforcement leniency for certain businesses.

Post-border, there is great diversity in compliance and enforcement approaches and outcomes across state and territory jurisdictions. Online trade and commerce adds an additional layer of urgency and complexity for biosecurity compliance and enforcement. Coordinating effective national responses to these issues would boost efficiency and address the lack of border recognition by both traders and invasive species.

Proposed priority reforms:

- Establish nationally coordinated programs for monitoring online trade and investigations into trade in illegal exotic animals and plants.
- Strengthen enforcement of high-risk pathways, including cargo and mail, through improved surveillance, data-sharing, and inter-agency intelligence coordination.
- Develop a nationally consistent compliance and enforcement framework, including harmonised standards and penalty guidelines, to reduce variation in outcomes across jurisdictions.
- Introduce stronger, escalating penalties for repeat offenders to ensure meaningful consequences for non-compliance.

- Strengthen the independence of enforcement decision-making from trade facilitation pressures, for example through clear escalation triggers and transparent decision criteria.

9. Funding theme

Aims (from the consultation paper): Maximise the value of existing funding, clarify national cost-sharing principles, and explore the potential development of new funding arrangements.

9.1 Investigate alternative funding mechanisms (medium term) and adopt feasible options (long term)

Aims (consultation paper):

- *Medium term:* Build on the national investment priorities framework to map biosecurity stakeholders, activities and funding mechanisms. Identify funding limitations to guide the development of options for alternative mechanisms.
- *Long term:* Consider new funding mechanisms or changes to existing mechanisms, where identified through the assessment of alternative national funding mechanisms.

General comments: Because increased funding is foundational for achieving biosecurity reforms, the development and adoption of new funding mechanisms should remain a top priority. We support the proposal to identify funding limitations, which overlaps our recommendation in section 9.2.

We recommend a more expansive focus on funding mechanisms, including options across the system as a whole, at all levels of government. This should include a particular focus on mechanisms that not only ensure risk creators pay for the consequences of biosecurity breaches, but also those that motivate biosecurity participants to take the utmost care to reduce risk – e.g. risk insurance and bonds. As recommended by the CEBRA, risk insurance should be trialled for biofouling.

Proposed priority reforms:

- Expand the investigation of alternative funding mechanisms beyond the federal biosecurity system to all levels of government – for biosecurity across the invasion curve. Include a strong focus on mechanisms that influence risk behaviours.
- Conduct a trial of risk insurance for biofouling.

9.2 Proposed additional priority: Develop a benchmarking method to aid prioritisation including for investment (medium term)

Aims (Invasive Species Council): Increase the transparency and defensibility of biosecurity investment priorities by auditing current funding allocations and developing a benchmarking method that can credibly compare environmental, social and economic consequences.

General comments: The influential 2017 Craik review found that environmental biosecurity had ‘long been viewed as subordinate, including in funding terms, to agricultural biosecurity’ ([URL](#)). Although the reviewers said that environmental considerations ‘should be comparable to human health and primary production’, they balked at recommending reallocation of existing funding, because it would spread limited funds even more thinly. Instead, they recommended raising more revenue and directing that revenue to the most underfunded parts of the biosecurity system, including environmental biosecurity.

Nine years later, it is time for an audit of current funding priorities to determine the extent to which the funding gaps for environmental biosecurity have been addressed and whether investment priorities are still skewed away from environmental biosecurity. While investment in environmental biosecurity has

substantially increased since the Craik review – in particular to establish the Environmental Biosecurity Office and to support preparedness for H5 bird flu – we think investment is still dominated by historical priorities.

The Craik review recommended adopting a consistent approach to risk prioritisation and investment across the system (for animal, plant and environmental streams). Fundamental to this is being able to compare environmental, social and economic consequences – a perennial challenge for decision-makers and one that typically results in underinvestment for non-economic outcomes.

Currently, it is not clear how DAFF prioritises across different types of impacts. The economic consequences of foot and mouth disease have been assessed as high, which has justified major investment of public funds into prevention and preparedness. But how does DAFF rate the priority of FMD compared to invasive species that could have catastrophic and irreversible environmental impacts (e.g. extinction or major decline)? The 2020 draft risk review for psittacine birds and other evidence suggest that severe impacts on industry are weighted more heavily than severe impacts from an environmental perspective.

Proposed priority reforms:

- Audit current funding allocations and methods informing investment priorities. Identify priority funding gaps across the national biosecurity system.
- Develop a transparent credible benchmarking method for prioritising investment in biosecurity that appropriately weights environmental benefits.

9.3 Develop cost-sharing principles (medium term) and adopt changes to arrangements, if required (long term)

Aims (consultation paper):

- *Medium term:* Define, develop and secure broad agreement to a set of principles for sustainable and contemporary national cost sharing to be applied during the development of funding approaches and cooperative biosecurity initiatives.
- *Long term:* Consider changes to national biosecurity cost sharing arrangements, where necessary. These may be informed by the national cost sharing principles established in 2027-2028.

General comments: We agree that cost-sharing arrangements – whether between governments or with industry bodies or other non-government contributors (including philanthropists) – should be transparently based on clear principles. Clarity between governments is just as important for biosecurity as it is for education, health and disaster recovery. The cost-sharing arrangements for emergency responses, and more recently for H5 bird flu (National Management Agreement for H5 HPAI in Wildlife), have driven more effective and nationally coordinated approaches – providing a compelling rationale to develop arrangements across a broader spectrum of biosecurity functions.

The NGO sector contributes a great deal to biosecurity, but is mostly unable to directly contribute funding (except as taxpayers) to government-coordinated functions for prevention and emergency responses. One important principle is to ensure that the ability of commercial entities to contribute funding for certain functions does not entitle them to exert undue influence over biosecurity priorities and functions. While we accept that a commitment by certain industries to contribute funding to emergency responses entitles them to a joint decision-making role, we think that decision-making tied to funding has led to a problematic neglect of the views and contributions from conservation, First Nations and local government sectors. Of concern is that an industry body has power to veto an emergency response of environmental significance if it triggers an industry deed. Also of concern is that the ability of industries to contribute funding to research

through levies has led to a considerable bias in government funding to industry research priorities over those for environmental biosecurity.

10. Proposed additional theme: Managing established invasive species

Proposed aim: Strengthen national coordination for managing nationally significant established invasive species, including in preparing for and responding to natural disasters.

10.1 Develop principles and processes for national coordination of established invasive species management

Proposed aim: Recognising the high public benefit of nationally coordinating the management of nationally significant invasive species, develop a consistent principles-based approach to national arrangements, including regarding the Commonwealth's role.

Background – a lack of clarity, consistency and commitment: Post-border biosecurity is primarily the responsibility of state and territory governments. That hasn't meant zero involvement from the Commonwealth, but the degree and types of involvement have varied considerably over time for different species and different functions.

Some recent trends point to a retreat of the Commonwealth – a decline in funding, and uncertainty about the future of the few nationally coordinated programs such as those for feral deer and rabbits, and reluctance by the Australian Government to take the lead on ensuring the timely development of new rabbit biocontrol agents.

But conversely, the Commonwealth has initiated or renewed involvement in some areas, including the 2025 national management agreement for H5 HPAI in wildlife (underpinned by substantial federal funding) and the National Established Weed Priorities program. Another positive, although not DAFF-led, has been the trend for joint development by Australia's governments of threat abatement plans under the EPBC Act for some key threatening processes.

Critical questions:

- What should the role of the Commonwealth be in management of nationally significant invasive threats?
- When is a nationally coordinated and nationally cost-shared approach warranted and how should priorities be determined?
- What legal or administrative mechanisms are available to facilitate nationally coordinated approaches to established invasive species, and how do they integrate with each other?
- What incentive and accountability mechanisms will best motivate the joint development and implementation of national strategies and action plans?

The value of national coordination and harmonisation: Coordination is one of the fundamental principles of effective management of widespread invasive species – beneficial for motivating ambition and cross-border cooperation and consistency, and boosting efficiency and cost-effectiveness. These benefits have been demonstrated by national programs such as the action plans for feral deer and feral pigs, the threat abatement plan for feral cats, and the H5N1 bird flu preparedness program. Corollaries can also be drawn with national disaster coordination. These programs are effective only because the Commonwealth provides national architecture and contributes funding.

Effective national coordination typically requires:

- dedicated national coordinators with the mandate and resources to build cross-jurisdiction consistency and momentum
- consistent goals, policies and approaches agreed to by all jurisdictions, as set out in national strategies or plans
- Commonwealth investment that motivates states and territories to co-invest
- oversight and accountability mechanisms.

The importance of co-funding arrangements: There is chronic under-investment in mitigating nationally significant invasive threats. Treasuries often seek to avoid expenditure if they think another level of government could or should fund programs, and disagreement about that has long bedevilled biosecurity.

Structured cost-sharing arrangements have proven effective for certain biosecurity functions – as demonstrated by eradications under emergency response deeds, H5N1 preparedness and, to a certain extent, management of weeds of national significance. We need equivalent clarity and principles to determine when managing priority established invasive species should be co-funded.

The importance of transparent, evidence-based decision-making on priority invasive species: Clear processes and criteria are needed for identifying the priority nationally significant invasive species that warrant coordinated national action. Industries can articulate priorities based on economic impacts, and those impacts matter. But the criteria for environmental and cultural consequences are more complex and easily marginalised.

Prioritisation should be driven by evidence-based assessment of ecological and socio-cultural impact – not by the political influence of industries with a commercial interest in the status quo. That principle is at risk of being breached in the current National Established Weed Priorities (NEWP) process, in which buffel grass has been nominated for Weed of National Significance (WoNS) listing (see the case study in Box 1).

Proposed priority reforms: This overlaps with proposed response and recovery reforms (sections 4 and 5), but the focus here is established and often widespread invasive species.

- Develop principles to determine when established invasive species should be the focus of nationally coordinated, jointly funded management plans or strategies (separate to those that are the focus of threat abatement plans).
- Develop processes for prioritisation, decision-making and accountability based on transparent criteria aligned with public benefit (refer to section 3.2 and 5.2)

Box 1. Buffel grass and the risks of failure of national arrangements for nationally significant weeds

Buffel grass (*Cenchrus ciliaris*) is one of Australia's most ecologically damaging environmental invaders. Unfortunately, it is also a prime example of how not to manage an invasive species and demonstrates several deficiencies with our current system:

- fragmented jurisdictional responsibilities and lack of national coordination for most of Australia's worst environmentally invasive threats
- neglect of nationally significant invasions when a species has commercial value; overt prioritisation of ill-informed industry views over evidence of severe environmental and cultural harm
- inadequate valuing of First Nations culture, knowledge and leadership
- lack of national consistency regarding invasive species classification and management goals

- lack of surveillance and monitoring for many environmental invaders
- short-term, episodic, project-based funding inadequate to contain let alone mitigate threats
- lack of integration between disaster preparedness and response and environmental invasive management.

In a well-functioning nationally coordinated system, buffel grass should be recognised by a WoNS listing as a major public health, environmental, cultural, social and economic threat. It should attract significant funding to coordinate and support management, with consistent surveillance, mapping, monitoring and management responses across Australia supported by research into more effective control methods.

The outcome of the NEWP process for buffel grass will be a test case for its integrity. The process was designed to assess nominations against evidence-based criteria, but the ultimate decisions about what to fund is open to influence by political factors.

If an evidence-based assessment is overridden by political pressure from an industry lobby, that failure should be treated as a problem requiring reform – not as a given.

10.2 Embed environmental biosecurity in disaster preparedness, responses and recovery

Proposed aim: Strengthen the biosecurity focus in arrangements for natural disaster responses to prevent the exacerbation of invasive threats and to take advantage of opportunities for threat mitigation.

Rationale: Disasters create conditions favourable to invasive species – disturbed soil, reduced competition and stressed ecosystems all aid opportunistic invaders – but they can also create opportunities to better control or eradicate established invasive species (for example, feral pigs on Kangaroo Island ([URL](#))). Under the Recovery theme, one priority is to align the national biosecurity recovery framework with the National Principles for Disaster Recovery. Conversely, more needs to be done to embed management of established invasive species into national disaster preparedness and response, especially as climate change increases the frequency and severity of disasters and assists in the spread of fire-promoting invaders (like buffel grass).

Proposed priority reform:

- Embed consideration of environmental biosecurity in disaster preparedness, responses and recovery – including to prevent the spread of invasive species, mitigate impacts exacerbated by disasters and take advantage of disasters to suppress invasive populations. Adopt more harmonised approaches that facilitate resource sharing between jurisdictions and workforce mobility to respond to biosecurity needs during disaster responses.