



Australian Government
Department of Defence

**Senate Standing Committee on Environment and
Communications**

Inquiry into Australia's faunal extinction crisis

**Department of Defence
Written Submission**

August 2018

Executive Summary

1. The 2016 Defence White Paper commits the Department of Defence to effective environmental management to ensure the long-term sustainability of the Defence estate. While the Defence estate is managed primarily for military purposes, Defence takes its environmental stewardship responsibilities seriously, and complies with relevant environmental legislation and regulations, including the protection of biodiversity on Defence bases and training areas.
2. Defence is one of the largest landholders in Australia, managing approximately three million hectares. The Defence estate is a significant national asset, comprising important environmental and heritage values including World Heritage sites, Ramsar wetlands, and habitats for hundreds of threatened species across a wide range of biomes.
3. This submission provides an overview of Defence environmental management under Commonwealth legislative and policy framework, how Defence stewardship and pro-active management measures contribute to the protection of Australian fauna and actively improve the local status of selected threatened species.
4. Examples provided in the submission primarily illustrate how a Commonwealth agency can achieve positive outcomes for protection of native fauna under regulatory frameworks described in terms of reference “d. the adequacy of Commonwealth environment laws, including but not limited to the *Environment Protection and Biodiversity Conservation Act 1999*, in providing sufficient protections for threatened fauna and against key threatening processes” and the complimentary role that management and programs on Defence land holdings play as a non-conservation land use under “f. the adequacy of the management and extent of the National Reserve System, stewardship arrangements, covenants and connectivity through wildlife corridors in conserving threatened fauna.”

Introduction

5. Defence is the largest Commonwealth landholder and one of the largest overall landholders in Australia. The Defence estate consists of 400 properties (including 72 major bases) and approximately 350 expenditure leases and is approximately 3 million hectares in size. It includes bases, training areas and ranges, research facilities and office accommodation to support Australian Defence Force (ADF) capability (see [Annex A](#)). Defence capability relies on consistent access to specific training areas and facilities to support regular training by the ADF to maintain individual and collective skill sets in order to generate and sustain cohesive joint forces.
6. Defence land often contains significant native vegetation and threatened species habitat. This is a result of size, restricted access, and the fact that, where possible, Defence properties are actively managed to protect and promote environmental values.

Defence Operations and Land Management

7. Defence actively manages Defence operations and the Defence estate to ensure it meets environmental obligations including obligations under the *Environment Protection and Biodiversity Conservation Act 1999* (C1th) (EPBC Act). The EPBC Act obligates Defence to minimise its impact on the environment. Defence has a well-defined framework to assess and manage environmental impacts associated with ADF training and facilities through both internal and external processes and contracted service providers and Defence personnel are required to adhere to the provisions of the EPBC Act.

Environmental impact assessment of Defence activities, including major exercises

8. Defence's environmental impact assessment program reviews and manages the environmental effects of major exercises, new capabilities, infrastructure projects and a range of day-to-day estate management activities. Depending on the level of environmental risk involved, environmental impact assessments can range in complexity from an internal self-assessment for an environmental clearance certificate, to a referral under the EPBC Act.

9. Defence has developed the Land Activities Environmental Management Plan (LAEMP) to assist the ADF in providing guidance to identify and manage potential environmental risks when conducting land-based activities. The LAEMP ensures that impacts to native fauna and habitats are considered in the planning stage for land-based activities and that appropriate control measures are implemented, such as activity exclusion zones. Support products, including a guide for visiting foreign forces and environmental reference cards for individual training areas, have been produced to ensure the on-ground intent of the LAEMP is achieved.

10. The largest training activity undertaken by Defence is the biennial Exercise Talisman Sabre. This is a combined major exercise in partnership with the United States Armed Forces and other invited nations. More than 30,000 troops are involved, and activities include amphibious landing, parachuting, land manoeuvre, urban operations, air operations and maritime operations. Approval for Exercise Talisman Sabre 2017 was sought via a public environment report which included an assessment of the risk to fauna and specific activity controls to prevent and minimise harm from the exercise.

11. Shoalwater Bay is a frequent location for Exercise Talisman Sabre and other training activities due to the combination of air, land and sea activities that can be conducted on the property and its surrounds. Shoalwater Bay also lies within the Great Barrier Reef Marine Park and World Heritage Area and contains significant vegetation and threatened species as well as a large and important Ramsar wetland. The 1994 Commonwealth commission of inquiry into the Shoalwater Bay Area recognised that Defence activities and environmental values were equally important. Defence has continued to promote and maintain a strong collaborative environmental management regime for Shoalwater Bay and Exercise Talisman Sabre.

12. Management of Exercise Talisman Sabre, and Shoalwater Bay more generally, is a highly collaborative process. The Shoalwater Bay Environmental Advisory Committee has been operating since 1996. The Environmental Advisory Committee meets twice yearly in Rockhampton, Queensland. It includes neighbouring landowners and people with fishing interests, representatives from Great Barrier Reef Marine Park Authority, Queensland state and local government, Darumbal Traditional Owners, non-government conservation organisations, and university academics.

13. Defence has entered into a Memorandum of Understanding with the Great Barrier Reef Marine Park Authority to jointly maintain Defence's strong environmental management record in the region. This includes research opportunities for mitigating impact to marine fauna, and management of threatening processes such as marine pest incursions, as well as ongoing commitment to outcomes of a Strategic Assessment of Defence Activities in 2013-2014 which limited the conduct of underwater detonations. Maritime activities are governed by the ADF Maritime Activities Environment Management Plan. The Environmental Management Plan recognises that the key to managing impacts is to manage individual activities as they occur. Real time management by operators at sea is facilitated by the use of procedure cards, which deal with the conduct of a wide range of activities including the use of mid-frequency active sonar and low flying by helicopters.

Environmental stewardship of Defence lands

14. Defence lands are often recognised for their high conservation value. Defence land management practices are notable for protecting important natural values. This is particularly so in urban fringe areas where Defence land has been buffered from development pressures. For example, Greenbank Training Area south-west of Brisbane is an important large natural area within the Flinders-Karawatha Corridor. This corridor would not exist as a continuous natural landscape without the contribution of the Defence Training Area. It is recognised by the (former) Queensland Department of Environment and Heritage Protection as “one of South East Queensland’s most important regional biodiversity corridors, providing habitat and movement opportunities for a range of species that are regionally and locally significant. .. it supports scenic amenity, outdoor recreation and landscape heritage values of regional significance.”¹

15. Training areas also perform similar functions within rural landscapes. In assessing Box Ironbark woodlands in Victoria, the Environment Conservation Council (2001) concluded that “the Puckapunyal and Graytown ranges contain a number of relatively high nature conservation values, including examples of several highly depleted Ecological Vegetative Classes, and habitat for certain threatened species” and that “by virtue of its Defence management... current management effectively provides a relatively high level of ecosystem protection in most areas. Continued use of the military range for training should not prevent, or be constrained by, management of key areas for nature conservation. The range’s current condition suggests that military training and conservation can satisfactorily co-exist.”²

16. The management of Australia’s Defence estate was used by Defence as a case study to the International Union for the Conservation of Nature World Commission on Protected Areas to help define what land tenures could be legitimately considered “Other Effective area-based Conservation Measures” (OECMs). Areas can be recognised as OECMs where they have a dedicated purpose other than biodiversity conservation, but by virtue of their management systems deliver demonstrable biodiversity conservation benefits. Defence’s input to the World Commission on Protected Areas resulted in the inclusion of Defence lands in international guidelines for recognising and reporting other effective area-based conservation measures.³

Defence land management activities

17. Defence land management is primarily delivered through contracted arrangements. Defence actively manages threatening processes including bushfire, pests, weeds and diseases to minimise impact on native species, neighbours and their livelihoods.

¹ **Source:** Queensland Department of Environment and Heritage Protection (2014) *Flinders Karawatha Corridor Management Strategy 2014–2019: A five year plan*.

² **Source:** Environment Conservation Council (2001) *Box-Ironbark Forests and Woodlands Investigation Final Report*.

³ **Source:** International Union for the Conservation of Nature World Commission on Protected Areas, 2017. Guidelines for Recognising and Reporting Other Effective Area based Conservation Measures. International Union for the Conservation of Nature, Switzerland. Version 1.

18. Defence often undertakes management activities with neighbouring land managers by collaborating to provide access, personnel or resources. Pest and weed control programs are particularly suited to this sort of interaction. Recent collaborations include a December 2016 pest animal management program at Shoalwater Bay Training Area, Queensland, where Defence contractors worked with Queensland Marine Parks and the Fitzroy Basin Association to target feral animals such as pigs. The program targeted core environmental values such as nesting locations of vulnerable shorebirds, and internationally significant Ramsar wetlands, as well as general pest management across the entire property to reduce environmental and economic harm stemming from pest species.

19. Biosecurity threats to native fauna and habitats are risk-assessed and actively managed. Strict vehicle hygiene procedures and wash down facilities at training areas are a key general control, but specific management actions are undertaken for higher-risk pests, weeds and diseases. For example, Siam weed (*Chromolaena odorata*) is a major emerging weed in the Townsville region and threatens to smother agricultural and natural environments. The management strategy applied to Siam weed at Townsville Field Training Area (TFTA) includes:

- A dedicated quarantine area.
- Integration and coordination with other management efforts run by Biosecurity Queensland and the Siam Weed Management Group, and neighbours including Queensland National Parks and local government.
- A strong focus on vehicle hygiene as the most effective biosecurity preventive action. This is enforced through TFTA Range Standing Orders, which prescribe that “all vehicles are required to pass through the deseeder both on entry and exit to the range. Any variant of this procedure is to have the approval of the Regional Environmental Officer.”
- Specific consideration in conduct of military exercises as part of exercise planning, issuing of Environmental Clearance Certificates for activities presenting a risk of weed spread (e.g. entering a weed quarantine area) and environment briefings provided to units.
- Ongoing communication with non-ADF TFTA users such as the electrical companies, cattle agisters etc.
- Aerial surveys in most years since 2006.
- Ground control annually since initial detection in 2004.
- Aerial control annually since 2011.
- Fire has been applied as a risk mitigation tool in the higher risk areas of TFTA annually since 2006.

20. Threat Abatement Plans form a core part of Defence's planning of management actions for threatening processes. An example is containment of root rot caused by *Phytophthora cinnamomi*. This can have a devastating effect on native vegetation, threatened species habitat, and forestry operations. It is particularly prevalent in south west Western Australia and Tasmania. Specific *Phytophthora* management plans are therefore in place for Bindoon Training Area in Western Australia and Stony Head Training Area in Tasmania. These plans map affected areas, prescribe hygiene protocols, including wash down facilities where appropriate, and detail monitoring programs to ensure outbreaks are contained and do not cause harm to sensitive natural and economic values.

Monitoring of threatened fauna on Defence land

21. Small urban or rural Defence facilities may occasionally provide stopover points for mobile species such as swift parrots (*Lathamus discolor*) or grey-headed flying foxes (*Pteropus poliocephalus*). Where possible, Defence facilitates access to universities and other entities to undertake monitoring that contribute to larger regional or national programs. For example, Birds Australia has conducted monitoring at Defence sites including HMAS *Cerberus* and RAAF Williams in Victoria. In some circumstances, Defence has dedicated threatened species monitoring programs.
22. With the recent acquisition of land to expand the Cultana Training Area in South Australia, Defence adopted a pre-existing network of monitoring locations established by the South Australian Pastoral Board to monitor and manage impacts of grazing on landscape health. Defence has established extensive baseline data across almost 250,000 hectares using these monitoring locations. Defence has also implemented an ongoing monitoring program to ensure that habitat of species such as the vulnerable western grasswren (*Amytornis textilis myall*) is maintained, and that key threatening processes such as invasion by the encroaching buffel grass (*Cenchrus ciliaris* and *C. pennisetiformis*) are detected and treated.
23. Detailed monitoring and research into the effects of fire regime at Beecroft Weapons Range at Jervis Bay has been undertaken by Defence-funded researchers from the Australian National University since 2008. This research has shown that populations of threatened eastern ground parrot (*Pezoporus wallicus wallicus*) and eastern bristlebird (*Dasyornis brachypterus*) are not being negatively affected by Defence activities.⁴ Ongoing monitoring also demonstrated that large, unplanned fires in 2015 and 2016 have not impacted on the health of the bristlebird population.
24. Where threatened species have been impacted by natural disasters on Defence properties Defence has contributed to programs to support the survival of the site population. For example there is an established protocol and program for supplemental feeding of the southern cassowary (*Casuarius casuarius johnsonii*) at Cowley Beach Training Area following cyclones. This program supports the outcomes of the species' recovery plan.

Defence contributions to threatened species recovery

25. Defence actively supports and facilitates actions that enhance the survival of threatened species. This includes research and survey collaborations, support for regional threat abatement programs and reintroductions of threatened species.
26. Defence supports and undertakes research to minimise the impact of Defence activities on threatened species. Scientists from the Defence Science and Technology Group collaborated with researchers from Sydney, Queensland, Newcastle and Curtin universities to conduct the Behavioural Response of Australian Humpback Whales Seismic Survey. The seven-year survey project involved extensive field work and data collection in which the reactions of humpback whales (*Megaptera novaeangliae*) exposed to noise were studied while they migrated along the Queensland and West Australian coasts. While the findings are still being analysed, the results show whales tend to change their movements to avoid noise sources. Distance buffers are in place to prevent use of sonar in proximity to whales on the limited occasions when sonar is in active use by the Navy.

⁴ **Source:** Lindenmayer et al. (2016) Bombs, fire and biodiversity: Vertebrate fauna occurrence in areas subject to military training. *Biological Conservation* Volume 204, Part B, Pages 276-283

27. Defence hosted a Bush Blitz survey of Bradshaw Field Training Area in the Northern Territory in May 2017. Bush Blitz is Australia's largest self-funded nature discovery program, and is tasked with helping to identify and catalogue new plant and animal species. The combined efforts of Parks Australia, the ADF and Defence environmental staff saw a 16-strong scientific survey of Bradshaw. The survey recorded 902 species, 377 of which had not previously been recorded on Bradshaw and 15 that may be new to science. Six threatened animal species were recorded, including a new population of the threatened Angalarri grunter (*Scortum neili*), which has only been recorded from three other highly localised populations.

28. Defence has facilitated threatened species reintroduction programs to support conservation efforts coordinated by state agencies. The endangered Eastern Bristlebird (*Dasyornis brachypterus*) was reintroduced to Beecroft Weapons Range in 2003-2005. By 2014 it had been detected across all 40 monitoring locations set up on the range. In September 2016, Defence collaborated with the Tasmanian Government and the Save the Devil Program to reintroduce 33 endangered Tasmanian Devils (*Sarcophilus harrisi*) into Stony Head Training Area in Tasmania. Devil numbers across Tasmania have collapsed in the face of Devil Facial Tumour, and the release of healthy devils into Stony Head is hoped to encourage the development of a healthy, wild Tasmanian Devil population in the area.

29. Bindoon Training Area in Western Australia is included in the Western Shield program of fox baiting run by the Western Australian Government. Management of the fox population has allowed the training area to retain a healthy population of vulnerable western quolls (or chuditch: *Dasyurus geoffroii*). The strong cooperative management arrangement in place over Bindoon and the adjacent Julimar Nature Reserve also includes monitoring of the endangered Carnaby's cockatoo (*Calyptorhynchus latirostris*) and western quoll. The outcomes were positive and the Western Australian Government was able to use quolls from Bindoon as founding members of a reintroduced population in Francois Peron National Park in Shark Bay.

30. Defence has engaged the Australian Wildlife Conservancy (AWC) in a trial to improve the biodiversity of the Yampi Sound Training Area in the West Kimberley. The Yampi Sound Training Area is a nationally significant area possessing a diverse range of ecosystems and richness in both flora and fauna. Over 800 plant species (approximately one third of the described Kimberley region flora) have been recorded there, including regionally endemic plants, animals and invertebrates and threatened species.

31. The AWC trial includes biodiversity monitoring and the establishment of a land management program (fire management, weeds and feral animal control) best suited to support the conservation of biodiversity. Key performance indicators in the contract are specifically linked to achievement of targets set down in the Australian Government's Biodiversity Conservation Strategy 2015-2030 and Threatened Species Strategy. The contract with the AWC also facilitates close cooperation with the Traditional Owners, including providing employment in the delivery of land management services.

Annex A

