



Environment and heritage management across Defence training areas



The Australian landscape provides Defence with unique training opportunities for their people. From the tropical jungles in Queensland to wide open saltbush plains in South Australia, Defence is committed to ensuring that the environment and heritage values of its training areas are protected.

Defence Training Area Management

Defence currently manages training areas across all states and territories, and places a high priority on protecting the environment, including water, heritage places and native plants and animals on these areas.

Routine management of training areas is guided by expert assessments of the specific attributes of the environment to determine best practice management actions. These may include monitoring and control of weeds and pests, and bushfire risk management, usually undertaken by the Estate Maintenance and Operations Service contractors. Water monitoring and remediation of soil and disturbed areas are also routinely undertaken to help protect areas from pollution.

Major training areas, such as Shoalwater Bay in Central Queensland, have Environmental Advisory Committees (EACs) in place to engage and share information with the community on environmental management at these sites. Membership of EACs includes local councils, national parks, Traditional Owners and other interested parties.



Photos

Above: Corporal Andrew Chappell from the Environmental Health Platoon of the 2nd Health Support Battalion checks some water samples during Exercise Talisman Sabre 2011 at the Shoalwater Bay Training Area.

Left: Private (PTE) Brad O'Connell from 2nd Health Support Battalion holds up a petri dish full of captured mosquitoes that will be identified for future studies to assist the local population in preventative health care during Operation Queensland Flood Assist.



Examples of services by expert local providers

Water Quality Monitoring

Defence has a long-term relationship with TropWATER - Tropical Water and Aquatic Ecosystem Research centre at James Cook University.

The University has been conducting water quality monitoring on Townsville Field Training Area since the 1990s. TropWATER has delivered annual monitoring of water quality, aquatic invertebrates, riparian vegetation and stream sediments since 2002.

Pest Animal Management Program

Defence's contractors have combined efforts with Queensland (QLD) Marine Parks and the Fitzroy Basin Association to target feral animals such as pigs at the Shoalwater Bay Training Area. The program targeted core environmental sites such as nesting locations of vulnerable shorebirds, and internationally significant Ramsar wetlands.

Biodiversity monitoring

Many universities and Government agencies are involved in biodiversity monitoring across Defence training areas. For example, in 2016, 11 scientists from the QLD Department of Science, Information Technology and Innovation conducted a Landscape Monitoring Program at Shoalwater Bay Training Area. This work found 4,593 individual species, comprised of 10 amphibians, 37 reptiles, 127 birds and 26 mammals.

These results showed an overall increase in diversity since 2011.

Management of New Properties

Any new properties acquired by Defence are subject to the same environment and heritage management regime, which requires:

- environment and heritage assessments; and
- appropriate government and environmental approvals supported by studies such as environmental and socioeconomic impact assessments.

Biosecurity surveys and risk assessments for pests and weeds may also result in environmental management measures such as quarantine areas, weed and pest control programs, updates to Defence training procedures, and vehicle wash-down and inspection points. High value biodiversity will generally be allowed to regenerate, and threats from pests, weeds, bushfires and training activities will be actively managed by Defence.

Defence's environmental vision is to be a leader in sustainable environmental management to support the Australian Defence Force to defend Australia and its national interests.

Heritage

Heritage on Commonwealth land is protected under the *Environment Protection and Biodiversity Conservation Act 1999*. This includes natural, historic and Indigenous heritage. For new acquisitions, Defence will undertake an assessment to understand if there are Indigenous, historic or natural values (tangible and intangible) that need to be protected. Defence consults extensively with the relevant Traditional Owners and local communities as part of that assessment.

Heritage values are also assessed by Defence when planning new development and major activities, such as major infrastructure projects and military exercises with the aim to avoid and minimise adverse heritage impacts. This can include consultation with Traditional Owners and can involve Traditional Owners participating in monitoring and remediation works.

Defence maintains heritage registers and heritage management plans for all training areas.

Vegetation Management

To ensure training areas for the Australian Defence Force are fit-for-purpose Defence undertakes broad scale and more localised vegetation management in order to:

- reduce fire hazards;
- maintain safety; and
- support the ecological health of vegetation.

Prescribed burning is the main tool for large-scale maintenance of vegetation, while slashing or mechanical clearing are used to create local bushfire safety zones or to maintain low vegetation on small arms ranges.

Defence rarely seeks to modify the training area landscape, such as thinning of natural vegetation, as heavily vegetated areas provide excellent training opportunities that are different to those in more open areas. Realistic training scenarios are essential for preparing the Australian Defence Force for deployment so they can achieve their mission and return home safely.

Pest and Weed Management

Invasive animals and plants cause significant damage to Australia's natural environment and Defence training areas. Pest and weed management programs are essential on training areas and activities are detailed in management plans and risk registers. These activities are delivered through establishing contracted services, which often includes using local expertise to scope and deliver the management programs.

Defence is bound by the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, and is committed to ensuring all training areas are managed to protect the environment including water resources, heritage, native plants and animals.