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Australian Government

Department of Defence

ENVIRONMENT AND HERITAGE MANUAL

A handwritten signature in black ink, appearing to read 'S. Grzeskowiak'.

Steven Grzeskowiak
Deputy Secretary
Estate and Infrastructure

Department of Defence
CANBERRA ACT 2600

29 January 2019



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FOREWORD

The Environment and Heritage Manual ('the manual') describes the agreed approach to enabling Australian Defence Force (ADF) capability through long-term sustainable management of the environment. The purpose of the manual is to provide instruction and guidance for all Defence personnel on Defence's legislative obligations and stewardship goals in line with the [Defence Environmental Policy](#) and [Defence Environmental Strategy 2016–2036](#).

The Defence Environment and Heritage Manual is a policy manual that applies to all Defence personnel. The terms of a relevant contract may extend the application of the manual to a contractor, consultant or outsourced service provider.

The scope of the manual applies to Defence's undertaking as a whole including all land, aerospace and maritime activities regardless of where they occur. Individual chapters in the manual will specify where exemptions may apply. The following Defence areas and activities are excluded from the scope of the manual:

- a. environmental intelligence where it relates to future conflict; and
- b. matters relating to workplace health and safety.

The manual will be reviewed three years from its date of issue or sooner if necessitated by business requirements to ensure it continues to reflect Government direction and the overarching Defence Environmental Policy. Minor amendments may be made at quarterly intervals commencing three months after the date of issue.



AMENDMENTS

Amendment number	Amendment	Amendment type	Effective date
AL1	Chapter 12	Updated to reflect the National Waste Policy objectives	11 September 2020
AL2	Chapters 1, 2, 4, 5, 6, 9, 10, 11 and 13 – Updated policy	Minor Amendment	May 2021
	Chapter 3 – Updated hyperlinks	Minor Amendment	May 2021
	Chapter 7 – Updated policy statement to reflect transfer of key policy requirements from the Manual of Fire Protection Engineering (MFPE), Chapter 6 Bushfire Management on the Defence Estate. Deleted – Replaced previous policy statements with relevant clauses from MFPE	Editorial change	May 2021
	Chapter 8 – Priority Pollutants updated to reflect updated register	Editorial change	May 2021
	Chapter 14 – PFAS Investigation and Management Chapter added	New	May 2021



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CHAPTER 1

ENVIRONMENT AND HERITAGE MANAGEMENT IN DEFENCE

BACKGROUND AND CONTEXT

1.1 The [2020 Defence Strategic Update](#) sets out three new Government-directed strategic objectives for Defence: to **shape** Australia's strategic environment; **deter** actions against Australia's interests; and **respond** with credible military force, when required.

1.2 In order to maintain appropriate readiness levels, the ADF must continue to have access to high quality training areas and facilities which must be managed in an environmentally sound and sustainable manner.

1.3 As a custodian of the environment in which it operates, it is critical that Defence maintains the trust granted by the Australian community to deliver the ADF mission and ensure the environment that Defence manages can sustain these activities into the future.

1.4 The Environment and Heritage Manual ('the manual') sets out the framework and policies to achieve this aim.

1.5 The purpose of the manual is to provide instruction and policy guidance on Defence's legislative obligations and stewardship goals in line with the [Defence Environmental Policy](#) and [Defence Environmental Strategy 2016-2036](#).

DEFENCE ENVIRONMENTAL POLICY

1.6 The Defence Environmental Policy is signed by the Secretary and the Chief of the Defence Force (CDF) and identifies the vision, context and strategic aims for environmental management throughout Defence. It prescribes an implementation framework that includes the Defence Environmental Strategy 2016-2036 and the [Defence Environmental Plan](#).

1.7 The Defence environmental vision ('vision') states that Defence will be a leader in sustainable environmental management to support the ADF capability to defend Australia and its national interests.

1.8 This vision is underpinned by four pillars: Compliance, Efficiency, Trust and Accountability. These pillars underpin Defence activities, guide decisions and align behaviours when managing environmental challenges and opportunities.

1.9 The Defence Environmental Policy will be reviewed every five years to ensure it aligns with Government direction. Revisions to the vision or strategic aims will be approved by the Secretary and the CDF.

1.10 The Environment and Heritage Manual describes the policy framework for the following environmental factors:

- environmental impact assessment and approval
- heritage management
- domestic biosecurity
- native species and communities
- soil management
- bushfire management
- pollution prevention
- site contamination management
- estate water management
- estate energy management
- waste and recycled materials
- climate adaptation and mitigation
- PFAS investigation and management.

DEFENCE ENVIRONMENTAL STRATEGY

1.11 The [Defence Environmental Strategy 2016-2036](#) provides a roadmap for the achievement of the Defence Environmental Policy through the identification of strategic aims relating to environmental performance.

1.12 The Defence Environmental Strategy has been aligned with Government direction and strategic guidance including the [2020 Defence Strategic Update](#), [2020 Force Structure Plan](#), [Lead the Way: Defence Transformation Strategy](#) and [Defence Corporate Plan](#), and is endorsed by the Secretary and the CDF.

1.13 The Defence Environmental Strategy will be reviewed every five years to ensure it aligns with Government direction. Revisions to the priorities will be agreed to by the Deputy Secretary Estate and Infrastructure Group (E&IG).

DEFENCE ENVIRONMENTAL PLAN

1.14 The Defence Environmental Plan, endorsed by Group Heads and Service Chiefs, provides the framework for implementation, communication, monitoring and reporting for achievement of the strategic aims, as defined in the Defence Environmental Policy and Defence Environmental Strategy.

1.15 The Defence Environmental Plan is a dynamic document, with a major renewal every five years to ensure it reflects Government direction and Defence's Environmental Policy.

1.16 Further details on the Defence Environmental Plan can be obtained by contacting environmentandheritage@defence.gov.au.

ENVIRONMENTAL RISK MANAGEMENT

1.17 The [Defence Risk Management Policy](#) outlines Defence's agreed approach to the management of risk and key accountabilities, responsibilities and expectations for risk management that support the achievement of Defence outcomes.

1.18 The CDF and the Secretary of Defence require risk to be integrated into all planning, approval, review and implementation processes, at all levels, to ensure that risk minimisation is one of the major considerations in decision-making.

1.19 Environment is one of the impact categories against which risks must be explicitly assessed by Defence personnel using an appropriate risk management process.

1.20 All Defence personnel have a role in identifying and managing environmental risks in the conduct of their duties.

1.21 All environmental risks requiring management by Defence that are owned or managed by E&IG will be recorded and managed through the governance risk and compliance module of the [Garrison and Estate Management System \(GEMS\)](#).

LEGAL AND COMPLIANCE FRAMEWORK

1.22 Defence and its contractors must comply with all Commonwealth legislation.

1.23 Defence may not be subject to state and territory law in all situations.

1.24 Whether or not Defence is bound by state and territory law is a complex issue and legal advice must be obtained on a case-by-case basis to confirm whether a particular state or territory law is applicable to Defence.

1.25 Defence contractors, subcontractors, outsourced service providers, licence holders and lessees must also comply with relevant state and territory laws. Further guidance on what is relevant state and territory law is provided in the environmental [Legal Obligations and Compliance Registers](#).

Environment Protection and Biodiversity Conservation Act 1999

1.26 The [Environment Protection and Biodiversity Conservation Act 1999](#) (*EPBC Act*) is the Australian Government's central piece of environmental legislation.

1.27 The *EPBC Act* is wide-ranging in its scope and holds all Commonwealth agencies and their representatives accountable for minimising environmental impacts and risks.

1.28 The *EPBC Act* provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places – defined in the *EPBC Act* as ‘matters of national environmental significance’ (refer to [Significant Impact Guidelines 1.1](#)).

1.29 The current matters of national environmental significance to which the *EPBC Act* applies are:

- world heritage properties
- national heritage places
- wetlands of international importance (often referred to as Ramsar wetlands)
- nationally threatened species and ecological communities
- migratory species
- Commonwealth marine areas
- the Great Barrier Reef Marine Park
- nuclear actions (including uranium mining)
- water resources, in relation to coal seam gas development and large coal mining development.

1.30 In addition, the *EPBC Act* confers jurisdiction over ‘actions’ that may have a ‘significant impact’ on ‘the environment’ on Commonwealth land, or will be carried out by a Commonwealth agency (refer to [Significant Impact Guidelines 1.2](#)).

1.31 The *EPBC Act* defines ‘environment’ to include:

- a. ecosystems and their constituent parts, including people and communities
- b. natural and physical resources
- c. the qualities and characteristics of locations, places and areas
- d. heritage values of places
- e. the social, economic and cultural aspects of a thing mentioned in paragraph 1.31a, 1.31b, or 1.31c.

1.32 Under the *EPBC Act*, a person must not undertake an action that has, will have, or is likely to have a significant impact on an *EPBC Act* protected matter without approval from the Commonwealth Environment Minister.

1.33 If an ‘action’ has the potential to have a ‘significant impact’ on an *EPBC Act* protected matter, the proposal must be referred to the Commonwealth Environment Minister for determination as to whether the action is a ‘controlled action’.

- 1.34 A referral to the Commonwealth Environment Minister is required where:
- a. a proposal has or is likely to have a significant impact on the environment on Commonwealth land; or
 - b. a Defence proposal has or is likely to have a significant impact on ‘the environment’, whether or not it is on Commonwealth land or waters.
- 1.35 Further information on Defence’s *EPBC Act* obligations and how they are met is included in [Chapter 2](#).
- 1.36 Other key legislation is referenced where relevant throughout the manual.

Defence Legal Obligations and Compliance Registers

- 1.37 The environmental [Legal Obligations and Compliance Registers](#) (LOCRs) outline the principal environmental obligations in place throughout the Commonwealth, states and territories of Australia.
- 1.38 The LOCs are designed to provide guidance on environmental legal obligations and for use as a tool to manage compliance to these obligations.
- 1.39 Non-compliance with legal obligations can have significant consequences for Defence in terms of penalties, audits and investigation, as well as impacts to reputation, capability and the environment.
- 1.40 While the LOCs provide an overview of the relevant legislation, the registers should not be relied upon as a pre-eminent source of legal advice. Additional legal advice specific to the matter in question should be sought where necessary.

ACCOUNTABILITIES

- 1.41 Every person in Defence is responsible and accountable for sound and sustainable environmental management in the conduct of their duties, in order to achieve the objectives of the manual and the Defence Environmental Policy.
- 1.42 Service Chiefs and Group Heads are responsible for ensuring outcomes included in the manual are achieved within their business function and incorporated into their policy, guidance and business processes.
- 1.43 E&IG is responsible for including requirements of environment and heritage manual and guidance in relevant contracts, leases, licences, agreements and other legal instruments. Service Delivery Division is responsible for including these requirements into the Base Service contracts.
- 1.44 Members of other Groups and Services with a contract management or governance authority role are accountable for including the requirements of the manual in relevant contracts, leases, licences and other legal instruments. The exclusion of specific requirements in such instruments does not negate the responsibilities a party may have in relation to legislative compliance.

1.45 Guidance on roles, functions and responsibilities at operational and tactical levels is included in implementation guidance documents which are referred to throughout the manual.

1.46 If you are unsure of your responsibilities as they relate to managing the environment please contact environmentandheritage@defence.gov.au.

GOVERNANCE

1.47 As the owner of environmental policies in Defence, First Assistant Secretary Infrastructure has authorised Assistant Secretary Environment and Engineering to develop and maintain the manual.

1.48 Assistant Secretary Environment and Engineering consults with Defence Groups and Services to ensure that the manual remains current, is integrated with other policies and business functions, and is implemented effectively across Defence.

1.49 Consultation between Environment and Engineering and other Defence Groups and Services is primarily undertaken through the [Defence Environmental Management Forum](#) (DEMF).

1.50 The DEMF supports the:

- development, implementation, tracking and review of Defence environmental policies
- collaboration across Groups and Services on a range of environmental issues to promote the integration of environmental policies into all Defence activities.

1.51 The DEMF consists of members from all Groups and Services and reports to the Estate and Infrastructure Steering Group and the Enterprise Business Committee on its priorities and achievement of the Defence Environmental Policy outcomes.

1.52 Assistant Secretary Environment and Engineering maintains the manual through continual improvement informed by regular monitoring in accordance with the Environmental Management System, feedback received through the DEMF, and other feedback mechanisms.

1.53 Key supporting documentation will be reviewed as required or as per the relevant review cycle defined by the document owner.

CONTINUAL IMPROVEMENT

1.54 Defence is committed to the continual improvement of its environmental performance.

Monitoring and reporting

1.55 Monitoring and reporting is a key part of ensuring continual improvement.

1.56 Defence is required under Section 516A of the *EPBC Act* to annually report its environmental performance.

1.57 Groups and Services are required to monitor and record their environmental performance.

1.58 First Assistant Secretary Infrastructure, as the policy owner for the environment in Defence, is responsible for reporting on Defence's environmental performance to senior leadership.

1.59 Information will be collected from Groups and Services through the DEMF and other reporting mechanisms to inform Defence's progress against environmental policy objectives.

1.60 Monitoring and reporting is used to inform the revision of environmental policy and guidance.

Incident reporting

1.61 Environmental incidents are reported via the [GEMS Incident Reporting form](#) or other relevant Group or Service incident reporting tool.

1.62 Guidance on reporting environmental incidents and how they are managed is included in the [Defence Environmental Incident Reporting Guideline](#).

1.63 Groups and Services use environmental incident data to determine the need for corrective actions, identify trends and improve environmental performance.

1.64 Options for continual improvement can be raised through the DEMF or sent to environmentandheritage@defence.gov.au.

GUIDANCE AND SUPPORT

1.65 Additional requirements and guidance materials on how to achieve environmental outcomes included in the manual are developed and maintained by Environment and Engineering Branch, E&IG on the [Defence Estate Quality Management System](#) (DEQMS).

1.66 References to relevant guidance materials to support the implementation of the manual are included in the 'Guidance and Support' sections throughout the manual.

1.67 Queries about environment in Defence should be addressed to: environmentandheritage@defence.gov.au.

Other related documents

- [ANP2201 – Navy Environment Management System](#)
- [Maritime Activities Environmental Management Plan](#)
- [Land Activities Environmental Management Plan](#)

- [Air Activities Environmental Management Plan](#)
- [Operational Environmental Management Plan](#)
- [Defence Enterprise Test and Training Area Manual](#)

CHAPTER 2

ENVIRONMENTAL ASSESSMENT AND APPROVAL

POLICY STATEMENT

- 2.1 Defence will identify, understand and manage its environmental impacts.
- 2.2 Defence will maintain an environmental assessment and approval program to meet its obligations under the [Environment Protection and Biodiversity Conservation Act 1999](#) (*EPBC Act*).

SCOPE

- 2.3 This policy aligns with Strategic Aim 2 of the [Defence Environmental Policy](#).
- 2.4 This policy applies to all Defence personnel, contractors, outsourced service providers, licence holders, lessees and other persons.
- 2.5 This policy applies to all Defence activities, operations and establishments both in Australia and overseas.

BACKGROUND AND CONTEXT

- 2.6 The *EPBC Act* is the Australian Government's central piece of environmental legislation.
- 2.7 The *EPBC Act* provides a legal framework to protect and manage the environment.
- 2.8 The *EPBC Act* provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places – defined in the *EPBC Act* as matters of national environmental significance (refer to [Significant Impact Guidelines 1.1](#)).
- 2.9 In addition, the *EPBC Act* confers jurisdiction over 'actions' that may have a 'significant impact' on 'the environment'⁵ when the action is on Commonwealth land or will be carried out by a Commonwealth agency (refer to [Significant Impact Guidelines 1.2](#)).
- 2.10 The *EPBC Act* defines an 'action' as a project, development, undertaking, activity or series of activities, or an alteration of any of these things.

⁵ Refer Section 1.30 for definition of 'the environment' under the EPBC Act.

2.11 Defence is committed to meeting its obligations under the *EPBC Act*.

2.12 Key parts of the *EPBC Act* that are relevant to Defence are:

a. Part 7 – Deciding whether approval of actions is needed.

Actions that are likely to result in a significant impact on an *EPBC Act* protected matter must be referred to the Commonwealth Environment Minister for assessment and approval under the *EPBC Act*. It is an offence to have a significant impact without an approval.

b. Part 9 – Approval of actions.

Penalties (including fines and imprisonment) can be applied for failing to comply with conditions of approval issued to a project.

c. Part 13 – Species and communities.

A permit is required to take, kill, injure or move an *EPBC Act* listed species or ecological community in a Commonwealth area (land or sea). The Environment Secretary must be notified within 7 days if an action has involved taking, killing, injuring or moving a listed species or ecological community in a Commonwealth area.

d. Part 15 – Protected areas.

Activities in World Heritage areas, National and Commonwealth Heritage places, wetlands of international importance, Commonwealth Reserves and declared Biosphere Reserves must comply with management plans.

2.13 To achieve compliance with the legislative requirements, Defence maintains an environmental assessment and approval program to identify, understand and manage the environmental impacts of all Defence activities with the potential to cause environmental harm.

2.14 All Defence 'actions' require an assessment of potential environmental impacts to ensure that regulatory obligations required by the *EPBC Act* are satisfied. A range of tools may be utilised to assess potential environmental impacts depending on the type of project or activity.

2.15 Many routine activities manage environmental impacts through existing Defence controls such as Standing Orders, Standard Operating Procedures, Defence management plans or exercise instructions.

2.16 Where an action is not covered by existing controls and there is potential for an adverse environmental impact to occur, approval through an [Environmental Clearance Certificate](#) (ECC) will be required. An ECC provides a record that the environmental risks of an action have been considered and will often specify environmental protection measures that must be implemented in order to ensure potentially adverse environmental impacts are appropriately managed.

2.17 Guidance on ECCs is included in the Environmental Clearance Certificate [template](#).

2.18 Directorate of Environmental Planning, Assessment and Compliance (DEPAC), in Environment and Engineering Branch, Estate and Infrastructure Group, uses a [Potential Environmental Risk Matrix](#) (PERM) process to identify and assess the potential for environmental impacts for capability acquisitions and sustainment projects (CASG), and in limited other (non-CASG) situations approved by DEPAC.

2.19 Where a preliminary assessment of potential environmental impacts indicates that an action may have an impact on *EPBC Act* protected matters, DEPAC, as the technical authority, must carry out a ‘self-assessment’ under the *EPBC Act*. The self-assessment decision is documented in an Environmental Assessment Report. Actions that are determined ‘likely’ to have a significant impact on *EPBC Act* protected matters must not commence without an approval from the Minister for the Environment.

2.20 Common Defence activities that require environmental assessment and approval through DEPAC include:

- a. Base redevelopment projects;
- b. New infrastructure projects;
- c. Acquisition of major new military platforms; and
- d. Major exercises such as Talisman Sabre.

2.21 Further information on Defence’s environmental assessment and approval program is available on the [Defence Estate Quality Management System \(DEQMS\)](#).

KEY FUNCTIONS AND RESPONSIBILITIES

2.22 All Defence personnel, contractors and outsourced service providers are responsible for understanding and managing the potential environment impacts of their projects and activities.

2.23 The Director of DEPAC is Defence’s delegated technical authority for assessing whether Defence actions require referral or a permit under the *EPBC Act*.

2.24 Guidance on meeting *EPBC Act* obligations may be sought from DEPAC. Where required, guidance may also be sought from Zone environmental staff.

2.25 DEPAC is responsible for administering Defence’s environmental assessment and approval program and for developing and communicating environmental assessment and approval guidance materials.

2.26 DEPAC is Defence’s primary point of contact for communications regarding environmental compliance, impact assessment and approvals with the department administering the *EPBC Act*.

2.27 DEPAC is responsible for monitoring and auditing the compliance activities of Defence projects that have received approval under the *EPBC Act*.

GUIDANCE AND SUPPORT

2.28 Queries about environmental assessments and approvals in Defence should be addressed to DEPAC: eiginfrastructure.eedepaprojects@defence.gov.au.

2.29 Additional guidance materials to support the implementation of this policy are included below.

Supporting documents

- [Significant Impact Guidelines 1.1 – Matters of National Environmental Significance](#)
- [Significant Impact Guidelines 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies](#)
- [Environmental Impact Assessment and Approval \(DEQMS\)](#)
- [Environmental Impact Assessment and approval in Defence](#)
- [Environmental Report Guidance](#)
- [Environmental Clearance Certificate Guidance & Template](#)
- [Potential Environmental Risk Matrix \(PERM\)](#)
- [Environmental Legal Obligations and Compliance Registers](#) (Defence)

CHAPTER 3

HERITAGE MANAGEMENT

POLICY STATEMENT

- 3.1 Defence will manage and protect the heritage values of the Defence estate in Australia and Defence establishments overseas by:
- a. assessing properties for heritage values, and maintaining a register of heritage places and values
 - b. recognising Indigenous people as the primary source of information on the significance of their heritage
 - c. preparing Heritage Management Plans and Heritage Impact Assessments to guide the maintenance, use and development of heritage places
 - d. increasing understanding and awareness of heritage values.

SCOPE

- 3.2 This policy aligns with Strategic Aim 5 of the [Defence Environmental Policy](#).
- 3.3 This policy applies to all Defence personnel, contractors, outsourced service providers, licence holders, lessees (through the terms of their contract) and other persons. Contract managers should include requirements to adhere to this policy in relevant contracts.
- 3.4 This policy applies to all Defence operations and establishments both in Australia and overseas.
- 3.5 This policy does not apply to 'movable heritage' (refer to [Glossary – Terms and Definitions](#)) managed by relevant Defence Groups, Services and external civilian organisations.

BACKGROUND AND CONTEXT

- 3.6 Defence has a long and proud history of valuing its heritage places.
- 3.7 Defence manages over 130 places spread over 60 properties on the Defence estate that are included on the [Commonwealth Heritage List](#) (CHL). Defence also manages several properties that have been assessed as having important natural, Indigenous and historic (built) heritage values against the criteria for the CHL but are not currently listed. A small number of Defence properties are also included on the National Heritage List (NHL) – such as RAAF Base Williams Point Cook in Victoria, or located within World Heritage List (WHL) sites including Shoalwater Bay Training Area (lies partly within the Great Barrier Reef Marine Park).
- 3.8 The current heritage status of properties on the Defence estate is available in the [Garrison and Estate Management System \(GEMS\)](#).

3.9 Defence has obligations to identify, assess, protect and manage the Defence estate heritage values under the [Environment Protection and Biodiversity Conservation Act 1999](#) (*EPBC Act*) including the requirement to prevent significant impacts to heritage values.

3.10 The *EPBC Act* establishes the Commonwealth, National and World Heritage Lists. The CHL protects heritage places owned or controlled by the Commonwealth. The threshold for inclusion of a place on the CHL is local heritage significance.

3.11 The *EPBC Act* requires all Commonwealth agencies to assess their property portfolios against the criteria for the CHL. Where Defence is acquiring or disposing of a site, a due diligence heritage assessment is also required. More information about Defence's heritage assessment responsibilities and processes is provided in the [Defence Estate Heritage Strategy](#). Defence has also developed Commonwealth Heritage Assessment Guidelines, which form part of the [Defence Heritage Toolkit](#).

3.12 Defence's heritage obligations under the *EPBC Act* also include the preparation and implementation of:

- a. A heritage strategy.

Defence's current strategy, the [Defence Estate Heritage Strategy – Valuing our Heritage 2017](#), is approved by the Minister for the Environment.

- b. Heritage management plans for places with identified Commonwealth heritage values.

Defence Heritage Management Plans are in place for the majority of properties currently included on the CHL. Development of Heritage Management Plans always includes consultation with Traditional Owners, and from time to time with local community groups. Heritage Management Plans are reviewed every five years. A national program is in place for the review and update of HMPs for both listed and assessed places with Commonwealth Heritage values.

- c. A heritage register.

The Defence Heritage Register is available in [GEMS](#). This data continues to be refined and updated in GEMS as assessments and Heritage Management Plans are reviewed.

3.13 Defence undertakes a range of planning, development and operational activities which have the potential to impact on the heritage values of the Defence estate including:

- a. Defence training activities, live fire, manoeuvres and trials
- b. development works (including new facilities, redevelopments, mid-term refreshes)
- c. acquisition, leasing and disposal

d. maintenance and conservation repair works.

3.14 Impacting heritage values may result in non-compliance of Defence's legislative obligations and damage to its reputation. A heritage impact assessment will be required. Further guidance is available in the [Defence Heritage Toolkit](#). Proactive awareness of Defence estate heritage values is the most effective means for Defence to avoid impacts on heritage values, and appropriately manage impacts where these cannot be avoided.

3.15 The [Native Title Act 1993](#) recognises the traditional rights and interests to land and waters of Aboriginal and Torres Strait Islander people prior to British occupation. The land and traditional cultural activities can have tangible and intangible Indigenous heritage values. Cultural values can exist regardless of whether Native Title exists.

3.16 Development of heritage properties provides unique opportunities for innovative solutions in design, adaptive reuse, interpretation and conservation.

GUIDANCE AND SUPPORT

3.17 Queries about heritage in Defence should be addressed to: dehpd.policy@defence.gov.

3.18 Guidance on roles, functions and responsibilities at the operational level are included in the Defence Estate Heritage Strategy 2017 and the [Defence Heritage Toolkit](#).

3.19 Guidance on understanding and managing heritage places and other assets during Defence planning, development and operations are included in the Defence Heritage Management Manual.

3.20 Additional guidance materials to support the implementation of this policy are included below.

Supporting documents

- [Archaeological Excavation Guidelines – Guideline Document \(GML 2012\)](#)
- [Australia ICOMOS Charter for Places of Cultural Significance, The Burra Charter, 2013 \(Burra Charter\)](#)
- [Australian Natural Heritage Charter 2002 \(2nd Ed\)](#)
- [Ask First, A guide to respecting Indigenous heritage places and values \(Australian Heritage Commission 2002\)](#)
- [Engage Early – guidance for proponents on best practice Indigenous engagement of environmental assessments under the EPBC Act, 2016](#)
- [Defence Logistics Manuals \(DEFLOGMAN\) Series \(Part 2 Volume 8 Chapter 8\) Appropriation and Import of Non-Australian Defence-Related Materiel During Australian Defence Force Operations](#)

- [Environmental Legal Obligations and Compliance Registers](#) (Defence)

CHAPTER 4

DOMESTIC BIOSECURITY

POLICY STATEMENT

4.1 Defence will manage biosecurity risks to minimise potential harm to Defence capability, the Australian people, economy and environment.

SCOPE

4.2 This policy aligns with Strategic Aim 1 of the [Defence Environmental Policy](#).

4.3 This policy applies to all Defence personnel and to contractors, outsourced service providers and other persons through the terms of their contract.

4.4 This policy applies to all Defence activities and operations within Australia.

4.5 This policy applies to all Defence establishments owned and leased within Australia.

4.6 This policy excludes international border quarantine biosecurity inspections and activities which are subject to the [Memorandum of Understanding \(MoU\) between the Department of Agriculture, Water and the Environment and the Department of Defence](#).

BACKGROUND AND CONTEXT

4.7 Defence activities can lead to biosecurity risks such as the introduction, establishment and spread of pests, weeds and pathogens which can cause human health, economic and environmental harm.

4.8 Defence must effectively manage biosecurity risks to meet its legislative obligations under the [Australian Biosecurity Act 2015](#).

4.9 Pests, weeds and pathogens can significantly interfere with Defence operations and training by altering or depleting the vegetation cover of training areas, increasing servicing and maintenance requirements, causing soil erosion and creating safety issues such as vehicle impacts with wildlife.

4.10 Defence must implement biosecurity measures to ensure that its activities minimise the risk of moving pests, weeds and pathogens between locations, and treat those species already established according to the level of risk they pose.

4.11 The [Environment Protection and Biodiversity Conservation Act 1999](#) (EPBC Act) identifies biosecurity risks that represent key threatening processes to Australia's biodiversity. Threat abatement plans are developed under the EPBC Act that outline strategies to address these risks.

4.12 Biosecurity risks are shared across all jurisdictions, and Defence must take account of the concerns and requirements of surrounding neighbours and authorities in assessing the management of biosecurity risks on the Defence estate.

4.13 International biosecurity is managed under the MoU between Defence and the Department of Agriculture, Water and the Environment with further guidance set out in the [Defence Logistics Manual \(DEFLOGMAN\)](#).

GUIDANCE AND SUPPORT

4.14 Queries about domestic biosecurity in Defence should be addressed to: dehpd.policy@defence.gov.au.

4.15 Implementation direction and requirements for undertaking certain environmental management activities can be found in the Defence Landscape Management Manual.

4.16 Additional guidance materials to support the implementation of this policy are included below.

Supporting documents

- Defence Landscape Management Manual
- [National Environmental Biosecurity Response Arrangement \(NEBRA\)](#)
- [DEQMS-based biosecurity toolbox, workflows and factsheets](#)
- DEFLOGMAN [Part 2: Volume 8, Chapter 7—Defence Compliance with Australian Biosecurity Measures](#) – [Part 4: The ADF – Force Extraction Cleaning Manual](#)
- [Environmental Legal Obligations and Compliance Registers](#) (Defence)

CHAPTER 5

NATIVE SPECIES AND ECOLOGICAL COMMUNITIES

POLICY STATEMENT

5.1 Defence will manage general threats to all native ecosystems and species through threat abatement activities.

5.2 Defence will undertake specific risk management programs where Defence may influence the survival of a native species or community.

5.3 Native species that pose potential risks to Defence will be managed to minimise harm to the species while protecting other environmental values and Defence capability.

SCOPE

5.4 This policy aligns with Strategic Aim 1 of the [Defence Environmental Policy](#).

5.5 This policy applies to all Defence personnel and to contractors, outsourced service providers and other persons through the terms of their contract.

5.6 This policy applies to all Defence establishments owned and leased within Australia.

BACKGROUND AND CONTEXT

5.7 The Defence estate contains nationally and internationally significant biodiversity including rare and endangered species and ecological communities.

5.8 Native vegetation is present across most of the Defence estate, and provides habitat for a large cross-section of Australia's plant and animal species as well as important training opportunities for the ADF.

5.9 The Australian Government has committed to protecting and improving native vegetation and the habitat and survival prospects of native species.

5.10 In order to support these commitments it is necessary to address pervasive threats such as pest and weed invasion and inappropriate fire regimes.

5.11 Guidance on appropriate threat abatement activities is included in the Defence Landscape Management Manual.

5.12 Rare and threatened species and communities may require additional management actions specifically targeting local threats and circumstances. These actions may be described in recovery plans under the [Environment Protection and Biodiversity Conservation Act 1999](#) or may be Defence-specific risk management programs or plans.

5.13 In some settings the establishment of native vegetation and high density animal populations or the maintenance of other environmental values may not be compatible with Defence activities.

5.14 Defence aims to manage these areas through detailed risk-based planning to support the ADF capability and minimise risks to people and the environment.

GUIDANCE AND SUPPORT

5.15 Queries about native species and communities on the Defence estate should be addressed to: dehpd.policy@defence.gov.au.

5.16 Implementation direction and requirements for undertaking certain environmental management activities can be found in the Defence Landscape Management Manual.

5.17 Additional guidance materials to support the implementation of this policy are included below and on [GEMS](#).

Supporting documents

- Defence Landscape Management Manual
- [Defence Enterprise Test and Training Area Manual](#)
- [DEQMS-based biodiversity toolbox, workflows and factsheets](#)
- [Environmental Legal Obligations and Compliance Registers](#) (Defence)

CHAPTER 6

SOIL MANAGEMENT

POLICY STATEMENT

6.1 Defence will conserve soils to support current and future uses and minimise impacts to the environment.

SCOPE

6.2 This policy aligns with Strategic Aim 1 of the [Defence Environmental Policy](#).

6.3 This policy aligns with the Defence Site Contamination Management policy in [Chapter 9](#).

6.4 This policy applies to all Defence personnel and to contractors, outsourced service providers and other persons through the terms of their contract.

6.5 This policy applies to all Defence activities and operations within Australia.

6.6 This policy applies to all Defence establishments owned and leased within Australia.

BACKGROUND AND CONTEXT

6.7 Healthy soils are fundamental to resilient ecosystems, landscape productivity and the sustained capacity to use a landscape.

6.8 Defence activities can impact on soil health on both the Defence estate and surrounding properties. Examples of Defence activities that can impact on soil health include:

- a. spread of contaminated soils
- b. off-road driving
- c. vegetation removal or damage
- d. establishment of defensive positions.

6.9 Poor soil health can result in:

- a. Erosion that can prevent vegetation growth, alter terrain and render an area unsuitable for Defence activities.
- b. Sedimentation of waterways that alters aquatic ecosystems and can cause damage to infrastructure.
- c. Salinity and acid sulphate soils that can kill plants and animals and damage infrastructure.

6.10 To prevent soil degradation it is necessary to understand soils and vegetation present on a property and their susceptibility to disturbance from Defence activities and natural drivers. Defence manages this through risk based planning to support ADF capability. Soils may require additional management actions or specific risk based programs or plans.

GUIDANCE AND SUPPORT

6.11 Queries about soils on the Defence estate should be addressed to: dehpd.policy@defence.gov.au.

6.12 Implementation direction and requirements for undertaking certain environmental management activities can be found in the Defence Landscape Management Manual.

6.13 Additional guidance materials to support the implementation of this policy are included below and on [GEMS](#).

Supporting documents

- Defence Landscape Management Manual
- [Defence Enterprise Test and Training Area Manual](#)
- [Defence Pollution Prevention Management Manual, Annex 1A – Acid Sulfate Soil Management](#)
- [Defence Contamination Management Manual](#)
- [DEQMS-Soil conservation](#)
- [Environmental Legal Obligations and Compliance Registers](#) (Defence)

CHAPTER 7

BUSHFIRE MANAGEMENT

POLICY STATEMENT

7.1 The objectives of the Defence Bushfire Management policy, in priority order, are to:

- a. protect human life
- b. protect Defence and civilian property and assets
- c. support ADF training
- d. promote pro-active, environmentally sustainable management of bushfire.

7.2 Bushfire risk management shall be documented in accordance with the provisions of the Defence Landscape Management Manual (LMM).

7.3 Defence shall seek to collaboratively manage bushfire risk through documented agreements and arrangements with internal and external stakeholders.

7.4 Total Fire Bans (TOBAN) issued by state and territory fire authorities shall be followed, including restrictions on the deliberate lighting of fires and conduct of hot works. The conduct of ADF live-fire activities on TOBAN days shall be in accordance with [Defence Enterprise Test and Training Area Manual](#) – Chapter 7 ‘Fire danger periods and ADF live-fire’.

7.5 Defence shall maintain a register of all planned burns and bushfires that occur on the estate in accordance with the provisions of the LMM.

SCOPE

7.6 This policy aligns with Strategic Aim 1 of the [Defence Environmental Policy](#).

7.7 This policy applies to all Defence personnel and to contractors, outsourced service providers and other persons through the terms of their contract.

7.8 This policy applies to all Defence activities and operations within Australia.

7.9 This policy applies to all Defence establishments owned and leased within Australia, including properties scheduled for disposal.

7.10 Defence’s requirements for all building works or change-in-use of buildings located in bushfire prone area, are detailed in the [Manual of Fire Protection and Engineering](#) – Chapter 12 ‘Building Construction in Bushfire Prone Areas – CF1 or CF2’.

BACKGROUND AND CONTEXT

7.11 Defence manages over 300 properties containing bushfire prone area that expose Defence personnel, capability, contractors, neighbouring properties and local communities to varying degrees of risk.

7.12 In recognition of this, the [Defence Environment Strategy 2016-2036](#) commits to minimising and managing adverse consequences from bushfire to external parties as a result of Defence activities.

7.13 All bushfire management planning shall take into account the [Defence Unexploded Ordnance Management Manual](#) – Chapter 9 ‘Guidance for Firefighting in UXO Affected Areas’.

7.14 Bushfire management activities shall be conducted in accordance with Defence’s [Environmental Impact Assessment](#) processes.

GUIDANCE AND SUPPORT

7.15 Queries about bushfire mitigation and control on the Defence estate should be addressed to: dehpd.policy@defence.gov.au.

7.16 Guidance on roles, functions and responsibilities at the operational level are broadly described in the Defence Landscape Management Manual.

7.17 Additional guidance materials to support the implementation of this policy are included below or on [GEMS](#).

Supporting documents

- Defence Landscape Management Manual
- [Defence Unexploded Ordnance Management Manual](#) – Chapter 9 ‘Guidance for Firefighting in UXO Affected Areas’
- [Defence Enterprise Test and Training Area Manual](#) – Chapter 7 ‘Fire danger periods and ADF live-fire activities’
- [eDEOP 101 – Department of Defence Explosives Regulations](#), Regulation 4.5 ‘Procedure 1 – Control of Vegetation, Livestock and Indigenous Fauna and Vermin’
- [Environmental Legal Obligations and Compliance Registers](#) (Defence)
- [Manual of Fire Protection Engineering](#) – Chapter 12 ‘Building Construction in Bushfire Prone Areas – CF1 or CF2’

CHAPTER 8

POLLUTION PREVENTION

POLICY STATEMENT

- 8.1 Defence will minimise future pollution risks.
- 8.2 Defence will:
- a. consider whole-of-life pollution risks throughout the Capability Life Cycle, from Gate Zero through to capability sustainment and disposal
 - b. procure more environmentally friendly products
 - c. minimise potentially polluting activities and the use of polluting substances
 - d. incorporate pollution control measures into the design, construction, maintenance and redevelopment of Defence establishments, facilities, materiel and infrastructure
 - e. handle, store and dispose of potentially polluting substances appropriately.

SCOPE

- 8.3 This policy aligns with Strategic Aim 3 of the [Defence Environmental Policy](#).
- 8.4 This policy aligns with the Defence Waste and Recycled Materials policy in [Chapter 12](#).
- 8.5 This policy applies to all Defence personnel and to contractors, outsourced service providers, licence holders, lessees and other persons through the terms of their contract.
- 8.6 This policy applies to all Defence activities, operations and establishments (owned and leased) both in Australia and overseas.

BACKGROUND AND CONTEXT

- 8.7 Defence undertakes a wide range of activities which require the unavoidable use of potentially polluting and hazardous substances.
- 8.8 Pollution can impact on human health, ADF capability, environmental quality and reputation. Prevention of pollution is the most cost effective means for Defence to avoid these impacts.
- 8.9 Pollution may arise from any stage of the life cycle of a potentially polluting substance, from manufacture to disposal. Pollution is generally a result of inappropriate use, storage and handling of hazardous substances.

8.10 Defence's high priority pollutants and polluting activities include:

- a. fuel and chemical storage, management and disposal
- b. maintenance and cleaning activities
- c. firefighting foam use and storage
- d. stormwater management
- e. waste storage and handling
- f. use of weapons/munitions at live firing ranges
- g. sewage systems and wastewater treatment plants
- h. research and laboratory testing
- i. destruction of ordnance and munition waste.

8.11 The systematic recording and reporting of chemical use in the delivery of Defence business will promote early identification of pollution risks and appropriate responses.

8.12 The [Defence Safety Manual \(SafetyMan\)](#) mandates the use of the Defence [ChemAlert](#) database for registering hazardous chemicals.

GUIDANCE AND SUPPORT

8.13 Queries about pollution prevention in Defence should be addressed to: pollution.prevention@defence.gov.au.

8.14 Guidance on roles, functions and responsibilities at the operational level are broadly described in the [Pollution Prevention Management Manual](#).

8.15 Additional guidance materials to support the implementation of this policy are included below.

Supporting documents

- [Defence Logistics Manuals \(DEFLOGMAN\) Series \(Part 2 – Volume 2 – Defence Fuels\)](#)
- [Defence Fuel Management System \(DFMS\) Element 12 – Environmental Management](#)
- [Defence priority pollutants register](#)
- Pollution Prevention Quick reference guides:
 - [Guide 1 – Batteries](#)
 - [Guide 2 – Cleaning up minor spills](#)

- [Guide 3 – General waste and recycling](#)
- [Guide 4 – Hazardous waste disposal](#)
- [Guide 5 – Hazardous chemical storage and handling](#)
- [Guide 6 – Pesticides](#)
- [Guide 7 – Vehicle and equipment cleaning](#)
- [Guide 8 – Class B firefighting foams](#)
- [Guide 9 – Class A firefighting foams](#)
- [Guide 10 – Heavy metals on live firing ranges](#)
- [Guide 11 – Asphalt recycling and management](#)
- [Defence Procurement Policy Manual](#)
- [Environmental Legal Obligations and Compliance Registers](#) (Defence)

CHAPTER 9

SITE CONTAMINATION MANAGEMENT

POLICY STATEMENT

- 9.1 Defence will identify and manage existing contamination risks.
- 9.2 Defence will:
- a. Investigate, remediate and manage, so far as is reasonably practicable, the risks to the environment and human health from legacy contaminated sites.
 - b. Investigate and disclose the presence, nature and extent of contamination in property transactions.
 - c. Account for the cost of remediating all recorded contaminated sites by recognising these costs as provisions or liabilities in the annual Defence Financial Statements.
 - d. Maintain public access to information about contamination on the Defence estate to improve transparency on Defence's processes and management of the estate.

SCOPE

- 9.3 This policy aligns with Strategic Aim 3 of the [Defence Environmental Policy](#).
- 9.4 This policy applies to all Defence personnel and to contractors, outsourced service providers and other persons through the terms of their contract.
- 9.5 This policy applies to all Defence establishments owned and leased within Australia.
- 9.6 This policy applies when Defence undertakes to investigate and manage contamination that has migrated off Defence establishments that are owned and leased within Australia, prior to the disposal of property and in accordance with the [Defence Contamination Management Manual](#).
- 9.7 This policy applies to the explosive residues that can be released by ordnance to contaminate soil and water resources.
- 9.8 This policy does not apply to the management of unexploded or exploded ordnance which must be managed in accordance with the [Defence Unexploded Ordnance Management Manual](#).

BACKGROUND AND CONTEXT

- 9.9 Defence has a significant legacy of contaminated sites across the estate caused by past industrial and military activities including uncontrolled landfilling and poor wastewater management.

9.10 Contamination of soil, groundwater and surface water is often costly to remediate and may reduce land capability for Defence, pose a risk to human health and the environment and impact on Defence's reputation.

9.11 Site contamination investigations aim to identify where legacy contamination has occurred and determine the impacts to human health or the environment.

9.12 Defence must account for the cost of remediating all recorded contaminated sites by recognising these costs as provisions or liabilities in the annual Defence Financial Statements.

9.13 Defence is committed to maintaining public access to information about contamination on the Defence estate to improve transparency on Defence's processes and management of the estate.

9.14 The systematic recording and reporting of legacy and ongoing chemical use in the delivery of Defence business will promote early identification of contamination risk and appropriate responses, including to inform capability.

9.15 It is important that these risks are identified through systematic investigations when there are planned changes in land tenure, such as leasing, licencing, acquisition and divestment, or planned changes in land use. These issues are considered in detail in the Defence Contamination Management Manual.

ADDITIONAL RESPONSIBILITIES

9.16 Policy guidance on PFAS investigation and management can be found in [Chapter 14](#). Further guidance on PFAS-specific projects, including options for disposal and remediation of PFAS contaminated material, can be sought from the Directorate of PFAS Management.

GUIDANCE AND SUPPORT

9.17 Queries about site contamination management in Defence should be addressed to: ncrp@defence.gov.au.

9.18 Guidance on roles, functions and responsibilities at the operational level are broadly described in the [Defence Contamination Management Manual](#).

9.19 Additional guidance materials to support the implementation of this policy are included below and on [GEMS](#).

Supporting documents

- [Guidelines for consideration of sustainability in remediation of contaminated sites](#)
- [Manual for management and remediation of petroleum hydrocarbons contaminated soils and sediments](#)
- [AASB 137 Provisions, Contingent Liabilities and Contingent Assets](#)

- [Defence Unexploded Ordnance Management Manual](#)
- [Defence Fuel Management System \(DFMS\) Element 12 – Environmental Management](#)
- [Contamination Risk Assessment Tool](#)
- [Defence Environment & Heritage Panel](#)
- [Environment Legal Obligations and Compliance Registers](#) (Defence)

CHAPTER 10

ESTATE WATER MANAGEMENT

POLICY STATEMENT

- 10.1 Defence will use and manage water responsibly.
- 10.2 Defence will:
- a. use water efficiently, and incorporate opportunities for reuse of water
 - b. ensure water security and resilience
 - c. contribute to environmental water stewardship outcomes
 - d. measure, monitor, manage and communicate water consumption effectively to drive responsible water usage behaviours.

SCOPE

- 10.3 This policy aligns with Strategic Aim 4 of the [Defence Environmental Policy](#).
- 10.4 This policy applies to all Defence personnel and to contractors, outsourced service providers, licence holders and other persons through the terms of their contract.
- 10.5 This policy applies to all water resources on the Defence estate (owned and leased properties) within Australia, including potable and non-potable water.
- 10.6 This policy does not apply to water pollution, which is included in the Pollution Prevention policy in [Chapter 8](#).

BACKGROUND AND CONTEXT

- 10.7 Water is a critical input to Defence capability. A resilient water supply is critical for activities such as firefighting, cooling of critical infrastructure and sustaining of personnel in training, accommodation, offices and recreation.
- 10.8 As the largest consumer of water and largest landholder within the Australian Government, Defence must implement best practice integrated water management.
- 10.9 Defence measures and monitors water consumption on the Defence estate through the [National Sub-meter Program](#) using the [Resource Data Management System](#) (RDMS) to drive water saving efficiencies and behaviours.
- 10.10 Defence facilities are located in almost every climatic zone in Australia, including some of the lowest rainfall and drought prone areas of the country. With forecasts indicating future climatic variability and regional shifts in precipitation, it is increasingly important that Defence considers water management holistically.

10.11 Holistic consideration of water use at the base / precinct level through effective measurement and monitoring of water usage and implementation of water efficiency, water security and other innovative value-for-money measures will enhance resilience and help to ensure that Defence has a secure and continuous supply of water well into the future.

10.12 Through recycling, various water sources that have traditionally been wasted, such as stormwater, sewage effluent and greywater, can become a valuable resource and their use can contribute to both water efficiency and water security outcomes.

GUIDANCE AND SUPPORT

10.13 Queries about estate water management should be addressed to: smart.infrastructure@defence.gov.au.

10.14 Guidance on roles, functions and responsibilities at the operational level are broadly described in the [Smart Infrastructure Handbook](#).

10.15 Additional guidance materials to support the implementation of this policy are included below.

Supporting documents

10.16 Whole of Government

- [National Water Quality Management Strategy](#)

10.17 Defence Supporting Documents

- [Smart Infrastructure Handbook](#)
- [Defence Estate Strategy 2016–2036](#)
- [Defence National Sub-Meter Program](#)
- [Resource Data Management System](#)
- [Environmental Legal Obligations and Compliance Registers](#) (Defence)

CHAPTER 11

ESTATE ENERGY MANAGEMENT

POLICY STATEMENT

- 11.1 Defence will use and manage energy responsibly.
- 11.2 Defence will:
- a. transition to cleaner, more sustainable energy
 - b. achieve a secure and resilient energy supply
 - c. maximise energy productivity across the Defence business
 - d. measure, monitor, manage and communicate energy consumption and generation effectively.

SCOPE

- 11.3 This policy aligns with Strategic Aim 4 of the [Defence Environmental Policy](#).
- 11.4 This policy applies to all Defence personnel and to contractors, outsourced service providers, licence holders, lessees and other persons through the terms of their contract.
- 11.5 This policy applies to energy consumption from stationary energy sources on all Defence properties owned and leased within Australia.
- 11.6 For the purposes of this policy 'stationary energy' includes all energy from internal and external supply sources used to operate and maintain the Defence estate, including:
- a. electricity
 - b. natural gas
 - c. liquid petroleum gas (LPG)
 - d. liquid fuels
 - e. biofuels
 - f. hydrogen gas
 - g. renewable energy sources and emerging technologies.
- 11.7 This policy does not apply to operational energy which includes energy (liquid fuel) generation and consumption arising from Defence operations and training activities, in Australia or overseas. Operational energy is considered through the Strategic Policy Framework and the Capability Life Cycle.

BACKGROUND AND CONTEXT

11.8 Energy is a critical requirement for Defence to maintain and enhance its capability and Defence is committed to best practice energy management.

11.9 The [Defence White Paper 2016](#) identifies the Defence estate as a key enabler of the Defence mission to 'defend Australia and its national interests'. Secure, reliable and sustainable energy is fundamental to achieving the Defence mission now, and into the future.

11.10 The [2020 Force Structure Plan](#) builds on investments made in the Defence White Paper 2016 in response to rapid changes in the global strategic environment and outlines base infrastructure enhancements as a key enabler to support the additional Defence capability investments.

11.11 The [2020 Defence Strategic Update](#) identifies the Defence estate as underpinning 'the ADF's ability to prepare for, conduct and sustain military operations including in response to national disasters'. Secure, reliable and sustainable energy is fundamental to achieving the Defence mission now, and into the future.

11.12 As the largest consumer of energy within the Australian Government, Defence is committed to improving energy efficiency and fulfilling the requirements of whole-of-government energy policy set out in the [Energy Efficiency in Government Operations \(EEGO\) Policy 2006](#).

11.13 In order to meet EEGO policy requirements Defence measures and monitors stationary energy consumption on the Defence estate through the [National Sub-meter Program](#) using the [Resource Data Management System](#) (RDMS) to drive energy saving behaviours.

11.14 The energy requirements of the Defence estate are significant, therefore Defence has a responsibility to manage, procure and use energy in a way that delivers value for money and minimises impacts to the environment.

11.15 As an end user of energy on the estate, it is critical for Defence to ensure energy supply chains are resilient, responsive and continuously available to support capability.

11.16 To date, Defence's stationary energy has been sourced directly from Australia's national electricity grid, gas distribution network or self-generation via diesel generators.

11.17 Defence is introducing renewable energy sources to the estate to complement the existing energy security measures in place. While existing stationary energy sources will continue to be critical to the operation of the estate, Defence will continue to seek to diversify stationary energy sources into the future.

11.18 The continued identification of energy efficiency and innovative energy solutions, including the introduction of on-site renewable energy and procurement of renewable energy through contracts, will help reduce Defence's energy costs into the future, while strengthening Defence capability and energy resiliency.

GUIDANCE AND SUPPORT

11.19 Queries about energy in Defence should be addressed to:
smart.infrastructure@defence.gov.au.

11.20 Guidance on roles, functions and responsibilities for Groups and Services throughout the energy lifecycle are provided in the [Smart Infrastructure Handbook](#).

11.21 Additional guidance materials to support the implementation of this policy are included below.

Supporting documents

11.22 Whole of Government:

- [Energy Efficiency in Government Operations \(EEGO\) Policy, 2006](#)
- [National Energy Productivity Plan \(NEPP\)](#)

11.23 Defence Supporting Documentation:

- [Defence Estate Strategy 2016–2036](#)
- [Smart Infrastructure Handbook](#)
- [Defence National Sub-Meter Program](#)
- [Resource Data Management System](#)
- [Environmental Legal Obligations and Compliance Registers](#) (Defence)

CHAPTER 12

WASTE AND RECYCLED MATERIALS

POLICY STATEMENT

- 12.1 Defence will minimise waste generation and harness the value of materials.
- 12.2 Defence will:
- avoid the generation of waste;
 - improve resource recovery;
 - increase the use of recycled material and build demand for recycled products;
 - support industry innovation, evidence-based change and continuous improvement to implement waste and sustainable material management policy objectives.

SCOPE

- 12.3 This policy aligns with Strategic Aim 4 of the [Defence Environmental Policy](#) and the [National Waste Policy](#).
- 12.4 This policy applies to:
- all Defence personnel and contractors, outsourced service providers and other persons through the terms of their contract;
 - all design decisions across the phases of the capability life cycle manual;
 - waste generated by Defence during service delivery; material supply; sustainment; operations, including infrastructure construction and demolition; and training—this includes disposal and asset management of expired and end-of-life materiel.
- 12.5 This policy excludes:
- waste streams generated by Defence during overseas operations which are not returned to Australia for management, except for hazardous materials covered by the Basel Convention;
 - radioactive waste;
 - Foreign Military Sales;
 - the management of environmental, security or safety risks prior to disposal—these are managed through other policies including those relating to:
 - pollution prevention;

- security;
- workplace health and safety;
- exploded/unexploded ordnance.

BACKGROUND AND CONTEXT

12.6 Waste management, recycling and material-recovery activities are a significant part of Australia's economy and environmental stewardship responsibilities. By reducing waste generation and accelerating the recovery rate of our resources, cost and resource consumption are reduced and environmental impacts are minimised.

12.7 This policy supports Australia's engagement in the United Nations' Sustainable Development Goal 12 on responsible consumption and production.

12.8 Defence is the largest procurer of goods and generates the largest and most diverse volume of waste within the Australian Government.

12.9 The National Waste Policy (2018) focuses on a circular economy, aiming to retain the value of materials in the economy for as long as possible, reducing the unsustainable depletion of resources and impacts on the environment. This is supported by the [Commonwealth Procurement Rules](#) requirement to consider environmental sustainability, including the use of recycled materials, and whole-of-life costs as part of the value-for-money assessment in procurement.

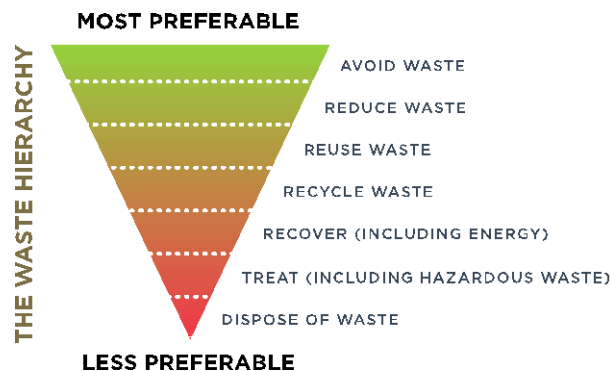
12.10 Reflecting the Australian Government's commitment to sustainable procurement practices, the Commonwealth Procurement Rules require entities to consider the Australian Government's [Sustainable Procurement Guide](#) where there is opportunity for sustainability or use of recycled content.

12.11 Careful design for the adaptive re-use of heritage buildings can provide substantial opportunities to minimise waste generation and reuse building materials as well as provide positive heritage outcomes on the estate.

12.12 Waste occurs at all stages of the Defence capability lifecycle, from procurement and construction, to operations, sustainment and disposal. The costs to manage waste produced by Defence are significant and increasing.

12.13 Defence manages waste in accordance with the waste management hierarchy which sets out the preferred order of adoption of waste management solutions, from most to least preferred. Waste avoidance and reduction solutions which maximise resource conservation are the most preferred, followed by reuse, recycling, recovery, treatment and disposal.

Figure 12-1: Waste Management Hierarchy



GUIDANCE AND SUPPORT

12.14 Queries about this policy should be addressed to:
smart.infrastructure@defence.gov.au.

12.15 Further guidance on roles, functions and responsibilities are in the Defence Waste Program.

12.16 Additional guidance materials to support the implementation of this policy are included below:

Supporting documents

12.17 Whole of Government:

- [National Waste Policy \(2018\)](#)
- [National Waste Action Plan \(2019\)](#)
- [National Food Waste Strategy \(2017\)](#)
- [Commonwealth Procurement Rules](#)
- [Sustainable Procurement Guide](#)
- [Australian Guide to Exporting and Importing Hazardous Waste](#)
- [Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal](#)
- [Adaptive Reuse for Heritage Buildings \(2004\)](#)

12.18 Defence Policy:

- [Defence Environment Policy](#) statement
- [Defence Estate Strategy 2016-2036](#)
- [Defence Procurement Policy Manual](#)

- Defence Capability Life Cycle Manual (2020)
- 12.19 Defence Enabling Documentation:
- [Defence Waste and Sustainable Procurement Program](#)
 - [Defence Base Services – Waste Management](#)
 - [Environmental Legal Obligations and Compliance Registers](#) (Defence)
 - [DEFLOGMAN ‘Defence Disposal Policy’ \(Part 2, Volume 5, Chapter 10\)](#)
 - [Smart Infrastructure Handbook](#)
 - [Defence Fuel Management System \(DFMS\) Element 12 – Environmental Management](#)

CHAPTER 13

CLIMATE ADAPTATION AND MITIGATION

POLICY STATEMENT

13.1 Defence will ensure that its estate and infrastructure account for climate risks. Climate and natural disaster risk are part of an all-risks approach to Defence business in a national approach to strengthening resilience.

13.2 Defence military and enabling capability shall ensure they are able to operate effectively in projected extremes of environmental conditions within Australian territory and the region.

13.3 Defence will seek to progressively lower its greenhouse gas emissions in ways that maintain or enhance operational capability or resilience.

SCOPE

13.4 This policy aligns with Strategic Aim 1 of the [Defence Environmental Policy](#).

13.5 This policy applies to all Defence personnel and contractors, outsourced service providers and other persons through the terms of their contract.

13.6 This policy applies to the consideration of all future climate risks, as identified by the Intergovernmental Panel on Climate Change. These include:

- a. sea level rise
- b. increased intensity of severe storms and cyclones
- c. increased extreme rainfall, changes to rainfall patterns and variability
- d. more hot extremes (heat waves) and fewer cold extremes
- e. increased fire weather and longer fire seasons
- f. increased ocean acidification.

13.7 This policy applies to the consideration of climate change mitigation through reduced greenhouse gas emissions and strengthening Defence's resilience to future climate and disaster risks through climate adaptation.

13.8 The following is considered in the Defence climate and disaster resilience policy and are not within the scope of this policy:

- a. the operational role of Defence in climate related humanitarian aid and disaster response
- b. climate change as a threat multiplier in national security

- c. the impacts of climate change on Defence capability development and acquisition.

BACKGROUND AND CONTEXT

13.9 The [Defence White Paper 2016](#) identifies the Defence estate as a key enabler of the Defence mission to 'defend Australia and its national interests' and acknowledges that climate change will result in risks to the sustainment of the Defence estate, platforms and equipment.

13.10 The [2020 Force Structure Plan](#) builds on investments made in the Defence White Paper 2016 and enhances ADF support to civil authorities in response to natural disasters, such as bushfires or floods.

13.11 Impacts to Defence from climate risks include:

- a. inundation and erosion of coastal bases and training areas
- b. structural damage to critical infrastructure and capability equipment
- c. changes to the number of available training days
- d. reduced water availability
- e. increased maintenance and repair requirements for infrastructure, equipment and platforms
- f. reduced function of Defence infrastructure such as runways
- g. increased stress on Indigenous and natural heritage values and protected species
- h. changes to disease, pest and weed management practices.

13.12 As such, Defence must mitigate climate risks and adapt to minimise the impacts of climate risks on Defence capability, in all aspects of strategic planning, the capability life cycle decision-making processes, training and operations.

GUIDANCE AND SUPPORT

13.13 Queries about estate climate adaptation and mitigation for Defence should be addressed to: smart.infrastructure@defence.gov.au.

13.14 Queries about renewable energy and energy security options should be addressed to the Defence Renewable Energy and Energy Security Program_ DREESP.PMO@defence.gov.au.

13.15 Guidance on roles, functions and responsibilities at the operational level are broadly described in the [Smart Infrastructure Handbook](#).

13.16 Additional guidance materials to support the implementation of this policy are included below and can be located on [DEQMS](#).

Supporting documents

13.17 Whole of Government:

- [Climate Change in Australia](#)
- [Coast Adapt – Adaptation options](#)
- [Australia's Climate Change strategies](#)

13.18 Defence Supporting Documents

- Defence Climate and Disaster Resilience Policy
- [Climate adaptation studies on the Defence Estate](#)
- [Smart Infrastructure Handbook](#)
- Climate Adaptation Handbook
- [Environmental Legal Obligations and Compliance Registers](#) (Defence)

CHAPTER 14

PFAS INVESTIGATION AND MANAGEMENT

POLICY STATEMENT

- 14.1 Defence will:
- a. Investigate, remediate and manage, so far as is reasonably practicable, the potential risks to the environment and human health from legacy per- and poly-fluoroalkyl substances (PFAS) contamination sites.
 - b. Monitor changes to the risk profile of PFAS contamination migrating from Defence properties.
 - c. Ensure the integrity and continuous improvement of data used to make investigations, remediation and other management decisions;
 - d. Provide timely, accurate and locally-relevant information on PFAS to the community.
 - e. Where appropriate, support research activities to close information gaps and explore new technology to increase the remediation options available.
 - f. Provide advice on construction and maintenance projects to help manage PFAS contamination risks.

SCOPE

- 14.2 This policy aligns with Strategic Aim 3 of the [Defence Environmental Policy](#).
- 14.3 This policy applies to all Defence personnel and to contractors, outsourced service providers and other persons through the terms of their contract.
- 14.4 This policy applies to all Defence establishments owned and leased within Australia.
- 14.5 This policy applies when Defence investigates and manages PFAS contamination on and from Defence establishments owned and leased within Australia.

BACKGROUND AND CONTEXT

- 14.6 Most PFAS contamination on the Defence estate is the result of the historic use of legacy aqueous film forming foams (AFFF) used for firefighting.
- 14.7 In the Defence context, sources of PFAS contamination are generally associated with current or former fire training areas, accident scenes where AFFF was used, AFFF product storage areas, fire stations, or areas where fire suppression systems were used.

14.8 PFAS contamination has migrated beyond the boundary of some Defence properties, contaminating the groundwater and parts of non-Defence properties.

14.9 There remain significant uncertainties in managing PFAS contamination with limited options for remediation. While there is potential for impacts to human health and the environment, the degree of risk associated with exposure is generally inconclusive and highly variable.

14.10 Defence capability has the potential to be impacted, especially where major capital works involve the management of large volumes of PFAS contaminated soil.

ROLES AND RESPONSIBILITIES

14.11 Advice on PFAS-specific projects, including options for disposal and remediation of PFAS contaminated material, should be sought from the Directorate of PFAS Management.

14.12 The Directorate of Contamination Assessment, Remediation and Management provides advice on broader contamination remediation and management.

14.13 The Directorate of Environmental and Heritage Policy Development provides advice on pollution prevention.

GUIDANCE AND SUPPORT

14.14 Queries about PFAS contamination in Defence should be addressed to: pfas.estatemanagement@defence.gov.au.

14.15 Additional guidance materials to support the implementation of this policy are included below.

Supporting documents

- [National PFAS Position Statement](#)
- [PFAS Construction and Maintenance Framework](#) - Management of PFAS risks for construction and maintenance projects.
- [PFAS Response Management Strategy](#) - Overarching high-level programmatic strategy for the management of PFAS risks.
- [PFAS Management Area Plan \(PMAP\) template and guidance](#) - Guidance on developing a PMAP.
- [PFAS National Environmental Management Plan](#) - Agreed by the Commonwealth, States and Territories, the PFAS NEMP establishes a practical basis for nationally consistent environmental guidance and standards for managing PFAS contamination.
- [Ongoing Monitoring Plan \(OMP\) template and guidance](#) - Guidance on developing an OMP.

- [OMP Factual report guidance](#) - Guidance on development of factual OMP reports for internal Defence use.
- [OMP Annual Interpretive Report guidance](#) - Guidance on development of interpretive reports for Defence and external stakeholders.
- [Remediation Action Plan \(RAP\) guidance](#) - Guidance on development of a PFAS RAP.
- PFAS Applied Research Strategy - Defence position, priorities and program on PFAS research and technology.
- [PFAS Technology Demonstration Proposal Guideline](#) - Guidance on development of a PFAS technology demonstration proposal.
- Defence Contamination Management Manual, including:
 - [Annex K](#) (Management of PFAS Contamination)
 - [Annex L](#) (Guidance on Data Management)
- Defence Pollution Prevention Management Manual: [Annex 1C](#) (Firefighting Foam Management)
- [Defence Environment & Heritage Panel](#)
- [Contamination Risk Assessment Tool](#)

GLOSSARY

TERMS AND DEFINITIONS

Action. Under the *Environment Protection and Biodiversity Conservation Act 1999* an 'action' is a project, a development, an undertaking, an activity or a series of activities, or an alteration of any of these things.

Australian Public Service employee. Is a person employed under the [Public Service Act 1999](#).

Commander. Is an ADF officer, who by virtue of a delegation or instrument of appointment exercises authority.

Consultant. Consultants are individuals, partnerships or corporations engaged to provide professional, independent and expert advice or services.

Contractor. Is a person engaged by Defence under a contract for skills that would normally be maintained in the Australian Public Service (APS) or Australian Defence Force (ADF) workforce. The person is performing duties required on a temporary basis, or is engaged as a short term measure.

Controlled action. A proposed action that is likely to have a significant impact on: a matter of national environmental significance; the environment of Commonwealth land (even if taken outside Commonwealth land); or the environment anywhere in the world (if the action is undertaken by the Commonwealth).

Defence. Is the Department of Defence.

Defence civilian. Is defined in section 3 of the [Defence Force Discipline Act 1982 \(DFDA\)](#), is a person (other than a Defence member) who:

- a. with the authority of an authorised officer, accompanies a part of the Defence Force that is outside Australia, or on operations against the enemy, and
- b. has consented, in writing, to subject themselves to Defence Force discipline while so accompanying that part of the Defence Force.

Defence estate. The term 'Defence estate' refers to all the land, buildings, facilities, sea area and physical infrastructure used by Defence to generate and sustain capability. This includes owned and leased estate, as well as designated offshore exercise areas under Defence Practice Area provisions. For the purposes of the Defence Environment and Heritage Manual, the term 'Defence estate' only includes domestic properties and ADF facilities on RMF Butterworth (Penang, Malaysia).

Defence locally engaged employee. Is any person engaged overseas by contract or under section 74 of the [Public Service Act 1999](#).

Defence member. As defined in the [Defence Force Discipline Act 1982](#) is a person who is:

- a. a member of the Permanent Navy, the Regular Army or the Permanent Air Force; or
- b. a member of the Reserves who:
 - (1) is rendering continuous full-time service; or
 - (2) is on duty or in uniform.

Defence personnel. Means all Australian Public Service employees in the Department of Defence, Defence locally engaged employees, Defence civilians, Defence members and the equivalents from other Defence organisations on exchange to Defence.

Environment. Section 528 of the [Environment Protection and Biodiversity Conservation Act 1999](#) defines 'environment' to include:

- a. ecosystems and their constituent parts, including people and communities; and
- b. natural and physical resources; and
- c. the qualities and characteristics of locations, places and areas; and
- d. heritage values of places; and
- e. the social, economic and cultural aspects of a thing mentioned in paragraph a, b, or c.

Group-specific instruction. An instruction that applies only to Defence personnel working in the group of the issuing Group Head.

Indigenous culture and heritage. Refers to the sites, places, objects and stories that relate to Aboriginal and Torres Strait Islander life.

Manager. Means Defence personnel or contractors, who direct a range of human and physical resources and their associated financial responsibilities to achieve corporate objectives. A manager may be a first-level supervisor or performs the role of a first-level supervisor where they have immediate subordinates, as well as the role of a second-level supervisor where they have Defence personnel supervised by those subordinates.

Matter Protected. Under the [Environment Protection and Biodiversity Conservation Act 1999](#) (Volume 2, Division 2, s528) a matter protected includes: the nine matters of national environmental significance; the environment, where actions proposed are on, or will affect Commonwealth land and the environment; and the environment, where Commonwealth agencies or their representatives are proposing to take an action.

Native Title. Refers to the communal, group or individual rights and interests of Aboriginal peoples or Torres Strait Islanders in relation to land or waters, where the rights and interests are possessed under the traditional laws and customs observed by the Aboriginal peoples or Torres Strait Islanders and the rights and interests are recognised by the common law of Australia.

Moveable heritage. Objects that have heritage significance for ethnological, archaeological, historical, literary, artistic, scientific or technological reasons. For example, museum collections are comprised of objects of all kinds that are movable heritage items. Movable heritage can include military objects such as cannon, medals and objects salvaged from shipwrecks, objects of importance to Aboriginal and Torres Strait Islander communities, decorative and fine art, books, records, documents, photographs, film and sound recordings.

Outsourced service provider. Defence has made a decision that the function is to be performed by an external service provider on a long term or permanent basis. Performance of the services is left largely up to the discretion and professional expertise of the provider. Typically, service standards or performance indicators are agreed as part of the contracting process and monitored periodically. The resulting output is produced for Defence as a customer. Remuneration is paid when milestones are reached or a task is completed, or periodically for the provision of ongoing services such as estate maintenance, cleaning or travel bookings. The provider generally supplies their own equipment and supplies.

Period of effect. Is the period of time a framework document remains extant. Framework documents that reach the end of their period of effect will be cancelled. Framework documents can be assigned a new period of effect by being reviewed.

Significant impact. A 'significant impact' is an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts.

Supervisor. Means Defence personnel or contractors who have direct or line supervisory responsibilities for Defence personnel.

Sustainability. Development or management that meets the needs of the present without compromising the ability of future generations to meet their own needs.