

9 Environmental Management

9.1 Introduction

The Environment Strategy provides the strategic direction for Perth Airport's environmental management and performance. It details the areas of environmental and sustainability focus, and outlines actions, improvements and initiatives in a five-year action plan. In accordance with the Airports Act requirements, it includes assessment of, and strategies for, the management of environmental matters over the next five years.

Perth Airport's Environment Strategy comprises:

- **Section 9—Environment Management (this section)**
- **Section 10—Climate Change and Resource Use, and**
- **Section 11—Land, Air and Biodiversity.**

Perth Airport recognises the importance of protecting and enhancing the quality of the environment and has put in place responsible environmental management strategies to minimise and mitigate the impact of airport operations and development activities.

The Environment Strategy is Perth Airport's key document that provides the strategic direction for the Perth Airport in terms of environmental management and performance.

In accordance with the requirements of the Airports Act, the strategy:

- specifies the key objective/s for environmental management
- identifies the areas considered to be environmentally significant
- outlines the framework for effective environmental management, including assessment and management of potential environmental issues, and
- provides the program of actions to be implemented over the next five years.



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9.1.1 Site Overview

The Perth Airport estate covers an area of 2,105 hectares and is situated on the Swan Coastal Plain at the base of the Darling Escarpment. The land is owned by the Commonwealth of Australia and has been operated and managed by Perth Airport Pty Ltd under a 50-year (plus 49-year extension option) lease arrangement since 1997.

The airport estate forms part of the traditional network of communication routes, meeting places and camping sites of the Whadjuk Noongar people. There are registered Aboriginal heritage sites present on the estate, including Munday Swamp.

Early European occupation of the land within the vicinity of the Perth Airport estate dates to the mid-late 1800s. The land was being used primarily as a golf course and market garden when it was acquired by the Federal Government in 1938 and developed as an airport.

9.1.2 Legislative Context

Environmental management of the Perth Airport estate is controlled through a Commonwealth legislative framework that includes the:

- *Airports Act 1996*
- *Airports Regulations 2024*
- *Airports (Environment Protection) Regulations 1997* (AEP Regulations)
- *Australian Heritage Council Act 2003*
- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*
- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy*
- *Environmental Protection and Biodiversity Conservation Regulations 2000*, and
- *Native Title Act 1993*.

The Australian Government’s Department of Infrastructure, Regional Development, Communications, Sport and the Arts (DITRDCA) is responsible for administering the Airports Act and associated regulations. DITRDCA appoints an Airport Building Controller and an Airport Environment Officer to oversee the implementation of the Airports Act and associated regulations at Perth Airport.

Because Perth Airport is located on Commonwealth land, State legislation will generally only apply for activities where Commonwealth legislation does not exist. In the case of matters absent from existing Commonwealth legislation, the following Western Australian legislation applies:

- *Aboriginal Heritage Act 1972*
- *Bush Fires Act 1954*
- *Dampier to Bunbury Pipeline Act 1997*
- *Dangerous Goods Act 2004*
- *Dangerous Goods Safety Regulations 2007*, and
- *Heritage Act 2018*.

To provide compatible land uses and manage potential off-site impacts, Perth Airport has due regard for land and biodiversity requirements within the local and state planning framework schemes.

Perth Airport also considers various State environmental legislation, policy and guidance for the assessment of environmental aspects on the estate and their management.

9.1.3 Stakeholder Consultation

The preparation of this Environment Strategy and ongoing effective environmental and heritage management of the airport estate, is dependent on productive interactions with a wide range of stakeholders.

Environmental topics are discussed by the Perth Airport Consultative Environment and Sustainability (ACES) group which includes representatives from Federal, State and local governments as well as conservation groups, catchment groups and community members. The ACES meetings provide opportunities to facilitate improved environmental outcomes and learnings across the estate. The group meets quarterly.

Perth Airport is also establishing a new quarterly forum with its tenants to focus on operational matters. This forum is designed to provide tenants with a more effective platform for discussions around environmental management and sustainability, allowing the ACES meetings to concentrate more on community-focused matters. Cultural heritage management across the estate is guided by:

- the Perth Airport Aboriginal Partnership Agreement Group (described in Section 8.5), which was established in 2009 to facilitate active engagement between Perth Airport, Traditional Custodians and other Aboriginal Elders, and
- the native title holders of the Perth metropolitan regions, the Whadjuk Aboriginal Corporation.

Perth Airport also undertakes ongoing consultation with Federal and State conservation bodies regarding methodology and outcomes of regular biodiversity surveys and assessments, environmental offsets, and progress and reporting on Environment Strategy initiatives.

9.2 Environmental Management Approach

Perth Airport adopts a risk-based approach to environmental management and implements this through the Environmental Management System (EMS), which is aligned to the requirements of the international standard for environmental management, ISO 14001:2015, and strategic policy and planning documents.

Key components of the EMS include the following elements:

- Environment Policy—outlines Perth Airport’s intentions, commitments and principles in relation to environmental management
- Sustainability Policy—outlines Perth Airport’s commitment to sustainable operations and business decisions and the implementation of sustainable development principles
- Sustainability Framework—describes the overarching strategic direction for operating in a sustainable manner to deliver positive outcomes for today and the future and make meaningful social, economic and environmental contributions to the people of Western Australia
- Heritage Strategy—outlines Perth Airport’s intentions and principles for Aboriginal heritage management, and
- continuous improvement, including monitoring, reporting and reviews.

The EMS’s intended outcomes are to:

- manage the environmental values of the airport estate
- achieve compliance with all applicable legal and other requirements
- understand and manage risks to the environment
- manage Aboriginal culture and heritage within the estate
- facilitate integration of environmental management into Perth Airport’s business management systems, and
- facilitate the communication and awareness of environmental information and processes through a documented framework.

9.2.1 Responsibilities

Environmental and heritage management are the responsibility of Perth Airport, airline partners, business partners, tenants, contractors and consultants. The key organisations with roles and responsibilities relating to environmental and heritage management of the Perth Airport estate are shown in Table 9-1.

Environmental Roles and Responsibilities	
Perth Airport Board of Directors	Oversee the environmental management of Perth Airport Ensure compliance with environmental regulatory requirements Set environmental and sustainability targets
Perth Airport executive staff	Ensure compliance with environmental regulatory requirements Ensure the necessary resources and processes are in place for implementation of required environmental management measures Ensure development aligns with the approved Master Plan and Environment Strategy
Perth Airport environment and heritage staff	Implement the Environment Management System Ensure compliance with environmental regulatory requirements Ensure the integration of environmental requirements into airport development and operations Identify and implement strategies to manage environmental issues Review and approve tenant and contractor Environmental Management Plans Report and investigate environmental hazards, incidents and stakeholder feedback Provide environmental advice and training to staff, contractors and other airport users Undertake tenant environmental inspections and audits Convene and administer the Perth Airport Consultative Environment and Sustainability Group Convene and administer the Perth Airport Partnership Agreement Group
Perth Airport staff	Comply with Perth Airport environmental management policies, plans and procedures Report environmental incidents Attend environmental training relevant to their role and responsibilities
Airport tenants, operators and contractors	Comply with applicable environmental legislation and Perth Airport plans, procedures and guidelines Report environmental incidents and hazards to Perth Airport Develop and implement construction and/or operational Environmental Management Plans when required Where required, provide an Annual Environment Report to Perth Airport
Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts (DTRDCSA)	Administer the Airports Act, <i>Airports Regulations 2024</i> and <i>Airports (Environment Protection) Regulations 1997</i> Appoint an Airport Environment Officer
Airport Environment Officer	Ensure management of the airport environment is in accordance with the Airports Act and associated regulations Conduct site inspections, monitoring and reporting Review development and building applications to ensure that environmental matters are appropriately managed
Federal Minister for Infrastructure	Decide whether to approve or refuse the Perth Airport master plan, including consideration of the environment strategy
Federal Minister for the Environment	Provide feedback on environmental aspects of Major Development Plans in accordance with the Airports Act Make decisions on airport projects referred under the EPBC Act

Table 9-1 Environmental management roles and responsibilities
Source: Perth Airport

9.2.2 Tenant and Airport Operators

Perth Airport’s tenants and companies conducting activities on the estate must comply with relevant legislation, lease agreements, and Perth Airport’s Environment Strategy.

Under the AEP Regulations, all tenants and operators at the airport have a general duty to avoid polluting and to take all reasonable and practicable measures to prevent polluting or minimise where prevention is not possible. This must take into account the sensitivity of the receiving environment, the nature of the harm the pollution could cause, and the technical knowledge available to prevent or minimise pollution.

The AEP Regulations require tenants to establish and maintain appropriate monitoring systems to assess the environmental consequences of their activities, and report monitoring results to Perth Airport.

Tenants considered to pose a risk to the environment are required to conduct their activities in accordance with an approved Environment Management Plan (EMP). An EMP provides an assessment of the potential environmental impacts and the mitigation measures of a tenant’s operations, monitoring, reporting and corrective actions to be put in place to manage the identified risks. The EMP is required to comply with environmental legislation and standards and be approved by the General Manager Approvals, Environment and Heritage (or equivalent) for Perth Airport prior to the tenant commencing operations.

All tenants and operators at Perth Airport have a general duty to avoid polluting and must take all reasonable and practicable measures to prevent or minimise environmental harm.

All EMPs must address the requirements of Federal and State Government guidelines, where applicable, as well as the documents published on the Perth Airport website, which are available to all tenants and contractors. These are further detailed in Section 9.2.4. Depending on the scope of tenant activities and the potential environmental risks identified, tenant monitoring activities will be required for surface-water and groundwater, soil, dust, air quality, and noise and vibration, with results regularly reported back to Perth Airport.

All tenants with an EMP in place are required to submit an annual environment report to Perth Airport that provides information on matters such as resource (energy, water, groundwater abstraction and fuel) consumption, waste generation, emissions, and results of any environmental monitoring.

Site environmental management is also addressed in sub-leases between Perth Airport and its tenants. Perth Airport classifies its tenants based on their environmental risk. The level of risk determines the frequency the tenant is audited by Perth Airport. This level of risk is regularly reviewed based on the tenant performance and their operations.



9.2.3 Contractors

Contractors conducting activities at Perth Airport are expected to comply with this Environment Strategy, the Airports Act and the AEP Regulations.

Contractors carrying out construction projects that have been assessed to have an impact on the environment are required to develop and implement a construction EMP. For projects or works that carry an increased environmental risk, Perth Airport may also require the development of specific sub-plans. An EMP and any sub-plans must be reviewed and approved by Perth Airport prior to works commencing. This review will include compliance with Perth Airport’s PFAS Management Framework.

9.2.4 Tenant and Contractor Guidelines

Perth Airport has developed a range of documents to provide guidance for tenants and contractors about specific environmental requirements for their activities on the estate. These documents are published on the Perth Airport extranet site, and include:

- Design and Technical Requirements: suite of guidance documents that detail the various matters to be identified and assessed in the design of new developments
- Environment Requirements Manual: outlines key environmental management requirements for planning, design, construction and operation phases
- guidelines for developing EMPs and Annual Environment Reports
- procedures for activities such as vegetation clearing, stockpiling and fill management, and
- permit application forms for activities such as fill use, clearing and pruning, and dewatering.

Perth Airport also provides an online Interactive Spatial Hub to provide contractors, tenants and consultants with access to ArcGIS infrastructure maps for the airport estate, including water and drainage infrastructure, flora, wetlands, and Aboriginal heritage.

9.2.5 Sources of Environmental Impact

The Perth Airport estate is a unique and dynamic setting operating 24 hours a day, seven days a week, with a wide range of aviation and non-aviation activities which have the potential to impact on the environment.

Potential sources of impact are shown in Table 9-2.



Activities with Potential Environmental Impact	
Aviation	Aircraft operations Aircraft painting Aircraft refuelling Aircraft waste Engine ground running and idling Firefighting operations and training General aviation maintenance, such as spray painting and paint stripping, workshop activities and cleaning using organic solvents Inflight catering Maintenance of aircraft, vehicles, mechanical plant and electrical equipment Runway, taxiway and apron maintenance Washing of aircraft, vehicles and equipment Wildlife hazard control
Construction	Construction of buildings, roads, runways, taxiways, aprons, car parks, etc. Demolition works Fuel storage and supply Importation and placing of fill material Land clearing, earthworks and dewatering Landscaping Services infrastructure installation Vehicle wash facilities Vehicle and equipment use Waste generation and disposal Weed and pest control
Operations	Bush, building and equipment fires Equipment use and maintenance Fuel storage and supply Road maintenance Manufacturing, distribution and industrial activities conducted by tenants Services (electricity, water, gas, wastewater) maintenance Sewerage leaks and spills Vehicle use, parking, maintenance, refuelling and washing
Historical Activities	Aircraft maintenance Aircraft hangar fire suppression systems Bush fires Firefighting operations and training activities Fuel storage and supply Hangar foam fire suppression systems Herbicide and pesticide use Historical land uses Importation of fill Landfill

Table 9-2 Sources of environmental impact at Perth Airport
Source: Perth Airport

9.2.6 Application of the EMS

The EMS incorporates five key management processes as follows:

9.2.6.1 Strategic Planning

Perth Airport’s overall commitments and approach to environment are defined in the Environment Policy. The EMS contains strategic-level objectives for environmental management of the estate.

9.2.6.2 Operational Planning

Operational planning includes environmental aspect and risk identification and assessment, incident management and emergency preparedness and response.

9.2.6.3 Implementation

Implementation of the EMS is achieved through defined environmental responsibilities, training and awareness, and communication.

9.2.6.4 Monitoring, Auditing and Reporting

A wide range of monitoring, auditing and reporting processes are in place to satisfy Commonwealth and State regulatory requirements, and to measure the extent to which Perth Airport’s environment objectives are being met. Processes include:

- auditing—every EMP for either construction or tenant operational phases, is assessed to ensure Perth Airport’s environmental and sustainability objectives and requirements are maintained for all works on the airport estate
- environmental monitoring—monitoring undertaken for flora and fauna, surface and ground water, contaminated sites and ground-based noise
- Annual Environment Report—Perth Airport submits an annual report to DITRDCA
- tenant management activities—tenants with an EMP are required to submit an Annual Environment Report to Perth Airport within 30 days of the end of the financial year
- reporting—Perth Airport reports as required to the National Pollution Inventory, National Greenhouse and Energy Reporting Scheme, Water Corporation’s Water Business Program, and the Australian Bureau of Statistics Environment Indicators Survey
- environmental and heritage incident reporting and investigation
- collection and collation of environmental incident and hazardous material spill data and reporting to the Airport Environment Officer, and
- management of the Environmental Site Register.

Table 9-3 provides a summary of the environmental monitoring activities undertaken by Perth Airport.

9.2.6.5 Review

Operations and activities are reviewed annually through the business improvement plan process, with the annual performance of the EMS assessed and improvement opportunities identified.

All monitoring and survey details are submitted to the Airport Environment Officer through the Annual Environment Report.

Environmental Management Aspect	Monitoring Type	Frequency
Environmental management	Internal EMS Conformance Audit	Annually
	External EMS Conformance Audit	Every 3 years
Sustainability in planning and design	Qualitative review of the implementation of environmental and sustainability principles in new developments	Ongoing
	Water use	Annually
Energy and carbon	Gas use	Annually
	Fuel use	Annually
	Electricity use	Annually
	Fuel usage (ground vehicles)	Annually
Hazardous materials and dangerous goods	Audit of dangerous goods storage	Every 3 years
	Underground storage tank integrity testing	As required
	Inspections of hazardous materials storage areas	Regular and ongoing as part of tenant audits
Cultural heritage	Aboriginal heritage monitors	As required, generally project based
Tenants	Review of tenant risk ratings	Annually, based on audits
	Review of tenant operational EMP	As required
	Audit of tenants for compliance against EMP commitments and site monitoring where required (groundwater, air emissions etc.)	Every 1-3 years, based on tenant risk ratings
	Environmental baseline assessment prior to lease commencement	As required
	Environmental assessment prior to lease expiry	As required
Projects	Review of contractor EMP, and associated sub-plans where required	Prior to the commencement of major construction activities
	Assessment of site conditions prior to commencing major projects	As required
	Audit of construction projects for compliance against EMP commitments	During major construction activities and/or on the basis of assessed risk
	Inspection of compliance with environmental permit conditions (such as clearing, stockpiling and soil/ fill movements)	Periodic
Estate management	Weed management	Annually
	Feral animal control	Annually
	Dieback monitoring and treatment	Annually

Environmental Management Aspect	Monitoring Type	Frequency
Bushfire management	Fire break maintenance and paddock slashing	Annually
	Prescribed burns to reduce fuel load	As required
Soil and water management	Soil quality testing	Prior to moving excavated soil
	Stormwater quality	Quarterly
	Groundwater quality	Quarterly
Biodiversity and conservation	Airside wildlife hazard monitoring	Daily
	Flora and vegetation survey	Every 5 years
	Threatened flora survey	Every 5 years
	Flora and fauna monitoring	Prior to major construction activities
Air quality and ground-based noise	Air quality	Continuous
	Ground-based noise	Continuous
Waste management	Bin room inspections	Regular and ongoing
	Triple interceptor trap inspections	Every 2 years or following spills
	Trade/greasy waste discharge monitoring	Reported annually by tenants
	Bin inspections	Ad-hoc, as part of EMP audits

Table 9-3 Perth Airport Monitoring
Source: Perth Airport

9.2.7 Continuous Improvement

Perth Airport’s EMS adopts a continuous improvement process to ensure plans and practices are current, in line with regulatory requirements, and adequate to manage identified risks.

Perth Airport conducts regular audits, monitoring, incident investigations, risk reviews and management reviews of the EMS. Through these processes, opportunities for improvement are identified and acted upon via system changes, updates and revisions. This process ensures regular and systematic continuous improvement of environmental management and sustainability at Perth Airport.

9.2.8 Training

To promote effective environmental and heritage management, Perth Airport’s environmental employees are required to have appropriate industry recognised qualifications, training and experience.

All Perth Airport employees are made aware of their roles and responsibilities, including conformance with policies and procedures. Training and communication processes and systems have been established, including environmental awareness training that is completed by all employees.

An induction process is undertaken by other personnel working on the airport estate—such as maintenance and construction contractors, and airline, security and retail staff working in the terminals—that includes an overview of environmental management obligations when working on the estate.

9.3 Environmental Focus Areas

The Environment Strategy details the management of environmental aspects that can be impacted by the development and operation of Perth Airport. The key focus areas are presented as follows:

Section 10

Climate Change and Resource Use

Focus Area

Climate change mitigation and adaptation

Water resource

Waste

Section 11

Land, Air and Biodiversity

Focus Area

Soils, groundwater and contamination

Biodiversity

Local air quality

Ground-based noise

Aboriginal cultural heritage sites

Built heritage

Action plans have been developed for each focus area to identify key initiatives to be undertaken over the next five years. The anticipated timeframes for achieving the actions are indicated as ongoing, short-term (one to two years) or long-term (three to five years).

General environmental management initiatives to be undertaken by Perth Airport between 2026 and 2030 are shown in Table 9-4 below:

Initiatives	Completion Timeframe
Annual review of the Environmental Design and Technical Requirements (DATR) guideline	Ongoing
Review and continuous improvement of the Environmental Management System	Ongoing
Improve environmental data management to aid in decision making	Short-term
Increase collaboration with airport tenants to improve their environmental management	Short-term

Table 9-4 Environmental Management five-year action program
Source: Perth Airport