

APPENDIX 1

AIRPORT ENVIRONMENT STRATEGY MASTER PLAN 2020





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"Aviation plays a vital role in facilitating global economic and social prosperity by fostering sustainable development and economic growth. Airports are working with the wider aviation community and governments to address, minimize and mitigate the environmental impacts of aviation growth,"

ANGELA GITTENS, ACI WORLD DIRECTOR GENERAL



# 1 Overview

This Environment Strategy strengthens Canberra Airport's ongoing commitment to manage and develop the Airport in a safe and environmentally sustainable way. This is the fifth Environment Strategy for Canberra Airport since privatisation in 1998 and complements and builds upon Canberra Airport's previous Environment Strategies (1999, 2005, 2010, 2014) and facilitates the ongoing development of Canberra Airport as a contemporary airport.

This Environment Strategy supports this 2020 Master Plan's proposal for future aviation growth to generate economic and employment growth and to meet the travel and social needs of the community and cater to an increase of visiting passengers in an environmentally sensitive manner.

Canberra Airport is at the forefront of innovation in the built environment and has generally applied the Green Building Council's Green Star principles and the NABERS to developments across the Airport for over fifteen years. Trigeneration and solar technology (significantly reducing greenhouse gas emissions) and water recycling systems (reducing the Airport's reliance on potable water supply) further demonstrate the Airport's commitment to innovation in environmental sustainability.

The upgrade and development of aviation infrastructure is ongoing and is required to meet aviation demand and ensure the safety, efficiency, and regularity of Airport operations. The award-winning terminal is a focal global entry point to the Nation's Capital and Southern NSW ensuring the travel and social needs of visitors and the community.

This Environment Strategy outlines Canberra Airport's methods to minimise environmental impacts during growth in operations in response to the 2020 Master Plan and details the ongoing high-quality environmental management of the Airport. Recognising the importance of maintaining the environment at the highest possible level, the Airport has put in place responsible and achievable measures to minimise the environmental impact of its operations. The specific objectives outlined in this Environment Strategy will provide a framework to ensure social, economic, and environmental goals are reflected in the development and every day running of the Airport.

# 1.1 ACHIEVEMENTS

Canberra Airport is a recognised national leader in the area of environmental management. It has an environmental management regime, significantly more advanced than most businesses and landowners, and has developed some of Australia's most sustainable buildings.

These measures include the construction of Australia's first 5 Star Green Star rated building [8 Brindabella Circuit] and the planting of more than 5,000 trees and 12,000 shrubs within the Airport precinct.

Canberra Airport is an active participant on numerous industry and professional associations and has proved itself to be a leader in the implementation of environmental and community initiatives such as:

- Supporting existing noise abatement areas ensuring aircraft noise protection for the majority of the region's residents;
- > Airport Open Days, showcasing the Airport to 30,000 people;
- The publication of 'The Hub' and 'Airport Talk' informing tenants and the community of news and developments on Airport; and
- > The Snow Foundation provides significant funding for local disadvantaged individuals, groups, and families.

The Snow Foundation was established in 1991 to assist those in need in the Canberra regional community - needs not covered by government sources. In the 28 years since being established, The Snow Foundation has reached out to help more than 600 different Canberra organisations and individuals, providing more than \$26 million in funding, including \$3.5 million in 2018.

A wide variety of applications have been approved for funding since the establishment of the Foundation, with the main emphasis on providing specifically targeted grants in the fields of social welfare, health and disabilities, education, and recreation.

## **1.2 FUTURE DIRECTION**

This Environment Strategy builds upon previous environment strategies. Additional issues raised in this 2020 Environment Strategy include:

- The ongoing review of the Canberra Airport Environment Management System;
- The review of existing practices and the development and implementation of a Waste Management Strategy for the Airport site;
- > The review of current technology and practices and the development and implementation of a formal Energy Strategy for the Airport site; and
- > The review of the Canberra Airport Water Management Plan.

## **1.3 LEGISLATIVE OBLIGATIONS**

The key pieces of legislation controlling the environmental operations of the Airport are the *Airports Act 1996*, *Airports (Environment Protection) Regulations 1997* and the *Environment Protection and Biodiversity Conservation Act (EPBC)*.

AIRPORTS	AIRPORTS ACT 1996 REFERENCE					
71(2)	Con	tents of draft or final master plan				
(h)	in re stra	elation to the first 8 years of the master plan – an environment tegy that details:				
	(i)	the airport-lessee company's objectives for the environmental management of the airport; and	AES Appendix 1			
	(ii)	the areas (if any) within the airport site which the airport- lessee company, in consultation with State and Federal conservation bodies, identifies as environmentally significant; and	AES 1.7			
	(iii)	the sources of environmental impact associated with airport operations; and	AES Chapter 3			
	(iv)	the studies, reviews and monitoring to be carried out by the airport-lessee company in connection with the environmental impact associated with airport operations; and	AES Chapter 3			
	(v)	the time frames for completion of those studies and reviews and for reporting on that monitoring; and	AES Chapter 3			
	(vi)	the specific measures to be carried out by the airport-lessee company for the purposes of preventing, controlling or reducing the environmental impact associated with airport operations; and	AES Chapter 3			
	(vii)	the time frames for completion of those specific measures; and	AES Chapter 3			
	(viii)	details of the consultations undertaken in preparing the strategy (including the outcome of the consultations); and	2020 Master Plan Chapter 3			
	(ix)	any other matters that are prescribed in the regulations; and	Refer <i>Airports Regulations 1997</i> Table below			

In addition to the *Airports Act*, the *Airports Regulations 1997* state additional matters are required to be specified in an environment strategy, which include:

AIRPORTS REGULATIONS 1997 REFE					
5.02A	Contents of draft or final master plan – matters to be specified in environment strategy				
(1)	For subparagraph 71(2)(h)(ix) and (3)(h)(ix) of the Act, the matters in this regulation must be addressed in the environment strategy.				
(2)	The environment strategy must specify any areas within the airport site to which the strategy applies that the airport-lessee company for the airport has identified as being a site of indigenous significance, following consultation with:				
	(a) any relevant indigenous communities and organisations; and	AES 3.4			
	(b) any relevant Commonwealth or State body.				
(3)	The environment strategy must specify the airport-lessee company's strategy for environmental management of areas of the airport site that are, or could be, used for a purpose that is not connected with airport operations.	AES 3			
(4)	The environment strategy must specify:				
	<ul> <li>(a) the training necessary for appropriate environment management by persons, or classes of persons, employed on the airport site by the airport-lessee company or by other major employers; and</li> </ul>	AES 2.7 and 2.12			
	(b) the training programs, of which the airport-lessee company is aware, that it considers would meet the training needs of a person mentioned in paragraph (a).	AES 2.7 and 2.12			
5.02B	Contents of draft or final master plan – things to be addressed in environment strategy.				
(1)	For subsection 71(5) of the Act, a draft or final master plan must address the things in the regulations.				
(2)	In specifying its objectives for the airport under subparagraph 71(2)(h)(i) or (3)(h)(i) of the Act, an airport-lessee company must address its policies and targets for:				
	(a) continuous improvement in the environmental consequences of activities at the airport; and	AES 3			
	(b) progressive reduction in extant pollution at the airport; and	AES 3			
	(c) development and adoption of a comprehensive environmental management system for the airport that maintains consistency with relevant Australian and international standards; and	AES 2.2			
	(d) identification, and conservation, by the airport-lessee company and other operators of undertakings at the airport, of objects and matters at the airport that have natural, indigenous or heritage values; and	AES 3			

AIRPORTS	REGULATIONS 1997	REFERENCE
	<ul> <li>(e) involvement of the local community and airport users in development of any future strategy; and</li> </ul>	AES 2.12 and Chapter 3 2020 Master Plan
	(f) dissemination of the strategy to sub-lessees, licensees, other airport users and the local community.	AES 2.12 and Chapter 3 2020 Master Plan
(3)	In specifying under subparagraph 71(2)(h)(ii) or (3)(h)(ii) of the Act, the areas within the airport site it identifies as environmentally significant, an airport-lessee company must address:	
	a) any relevant recommendation of the Australian Heritage Council; and	N/A
	<ul> <li>b) any relevant recommendation of the Department of Environment regarding biota, habitat, heritage or similar matters; and</li> </ul>	AES 1.6
	<ul> <li>any relevant recommendation of a body established in the State in which the airport is located, having responsibilities in relation to conservation of biota, habitat, heritage or similar matters.</li> </ul>	N/A
(4)	In specifying the sources of environmental impact under subparagraph 71(2)(h)(iii) or (3)(h)(iii) of the Act, an airport-lessee company must address:	
	<ul> <li>(a) the quality of air at the airport site, and in so much of the regional airshed as is reasonably likely to be affected by airport activities; and</li> </ul>	AES 3.3
	(b) water quality, including potentially affected groundwater, estuarine waters and marine waters; and	AES 3.1
	<ul> <li>(c) soil quality, including that of land known to be already contaminated; and</li> </ul>	AES 3.7
	(d) release, into the air, of substances that deplete stratospheric ozone; and	AES 3.3
	<ul> <li>generation and handling of hazardous waste and any other kind of waste; and</li> </ul>	AES 3.8
	(f) usage of natural resources (whether renewable or non- renewable); and	3.10
	(g) usage of energy the production of which generates emissions of gases known as 'greenhouse gases'; and	3.10
	(h) generation of noise.	
(5)	In specifying under subparagraph 71(2)(h)(iv) or (3)(h)(iv) of the Act, the studies, reviews and monitoring that it plans to carry out, an airport-lessee company must address:	
	(a) the matters mentioned in subregulation 5.02A(2) and subregulations 5.02B(3) and (4); and	3
	(b) the scope, identified by the airport-lessee company, for conservation of objects and matters at the airport that have natural, indigenous or heritage value; and	3.4, 3.5, 3.10

AIRPORTS	AIRPORTS REGULATIONS 1997					
	(c)	the approaches and measures identified by the airport-lessee company as its preferred conservation approaches and measures; and	3			
	(d)	the professional qualifications that must be held by a person carrying out the monitoring; and	2.11			
	(e)	the proposed systems of testing, measuring and sampling to be carried out for possible, or suspected, pollution or excessive noise; and	3			
	(f)	the proposed frequency of routine reporting of monitoring results to the airport environment officer (if any) for the airport, or to the Secretary;	3			
(6)	In s the prev airp	pecifying under subparagraph 71(2)(h)(vi) or (3)(h)(vi) of the Act, measures that it plans to carry out for the purposes of venting, controlling or reducing environmental impact, an ort-lessee company must address:				
	(a)	the matters mentioned in subregulations (2) to (4); and	3			
	(b)	the means by which it proposes to achieve the cooperation of other operators of undertakings at the airport in carrying out those plans.	2.9, 2.10, 2.12			

## **1.4 AIRPORT ENVIRONMENT OFFICER**

The Department of Infrastructure, Transport, Regional Development and Communications has appointed an Airport Environment Officer (AEO) who manages the administration of environmental legislation at the Airport.

The Airport has monthly progress meetings and works closely with the AEO to ensure environmental objectives and compliance with statutory obligations are achieved.

## **1.5 ANNUAL ENVIRONMENT REPORT (AER)**

The Airport is required to submit an AER to the Department of Infrastructure, Transport, Regional Development and Communications detailing the Airport's performance against the policies, targets and statutory obligations as set out in the Environment Strategy.

The AER also includes the Environment Site Register which is a table of all reports, monitoring results, remedial plans, and any occurrences of environmental significance at the Airport.

# **1.6 ENVIRONMENTAL APPROVALS**

This 2020 Master Plan has identified a wide range of new developments, upgrades and improvements to aeronautical infrastructure to ensure Canberra Airport is ready to cater for the future requirements of civil aviation and other users of the Airport. There are two environment referrals for Canberra Airport; Referral 2008/4170 and 2009/4748 (as shown in Table 1.1), both of which relate to the aeronautical development of the site. The conditions of approval include the development, approval and implementation of the Threatened Species Management Plan, offset strategies and standard Construction Environmental Management Plan (CEMP).

Aside from development which may occur outside of the current Airport boundary, there are no pending or anticipated environmental referrals associated with the development outlined in this Master Plan.

REFERRAL APPROVAL	DOCUMENT	CONDITION APPROVED
2009/4748	Threatened Species Management Plan	March 2010
2009/4748	Master Plan Offset Strategy	February 2010
2008/4170	Taxiway Bravo Biodiversity Offset Strategy	February 2010
2009/4748	Conservation Agreement	Subject to land transfer
2009/4748	Northern Road Strategy (Construction and Operation)	Subject to land transfer
2008/4170 and 2009/4748	Standard CEMP	February 2010

#### Table 1.1 - Environment referrals

A Northern Road Strategy will be submitted for approval when the land for the Northern Road is transferred to Canberra Airport. The referral areas are shown in Figure 1.1.

EPBC 2008/4170 and 2009/4748 were revised by the Department of Agriculture, Water and the Environment in June 2019 to facilitate the construction of Taxiway Bravo north of Taxiway Delta.

Figure 1.1 - Areas subject to EPBC approved referrals and Natural Temperate Grassland



0 200 400 800 Meter

## 1.7 ENVIRONMENTALLY SIGNIFICANT AREA

Canberra Airport has identified an environmentally significant area (refer Figure 1.2), which is set out in the Threatened Species Management Plan (as a condition of the EPBC Act referral 2009/4748) and was subsequently approved by the Australian Government Department of Agriculture, Water and the Environment. This identified area complies with the Airports Act and the Airports (Environment Protection) Regulations 1997 and includes an area north of the Runway 17/35 undershoot road containing Natural Temperate Grassland (NTG) and listed threatened species, such as the Grassland Earless Dragon (GED) and Golden Sun Moth (GSM) as shown in green in Figure 1.1.

A further condition of EPBC Act Referral 2009/4748 approval was the requirement for the Airport to purchase a compensatory property. The Airport purchased the property known as Parlour Grasslands in 2010 which itself is subject to a conservation agreement with the NSW Nature Conservation Trust. The Australian Government Department of Agriculture, Water and the Environment approved the Parlour Grasslands as the compensatory property for EPBC Act Referral 2009/4748.

Referral approval 2008/4170 refers to the extension of Taxiway Bravo to the north. The then Department of the Environment approved the removal of NTG required for this development so long as additional NTG is developed on Airport within five years of the project commencing or protected elsewhere. Taxiway Bravo is to be built in 2019 and early 2020. Canberra Airport has been in consultation with the Department of Agriculture, Water and the Environment since 2016 on this proposal.

## **1.8 ENVIRONMENTALLY SENSITIVE AREAS**

Canberra Airport has identified environmental sensitive areas on Airport (refer Figure 1.2). This includes a potential Indigenous heritage site in the south-east corner of the Glenora Precinct of the Airport (as discussed in Section 3.4). The potential Indigenous heritage site is unlikely to be affected by development during the next eight years. Procedures are in place (if required) with the ACT Heritage Unit for the assessment, relocation and recording of Indigenous artefacts if found.

The second area is the balance of the NTG and potential habitat for listed threatened species on Airport (not affected by approved development). These grasslands and potential habitat are managed in accordance with the Threatened Species Management Plan.

The third area relates to the European heritage areas of Fairbairn as outlined in Section 3.5. These heritage values are managed in response to the Fairbairn Heritage Management Plan (FHMP).







The Environment Management System is the basis for a culture of ecologically sustainable working practices amongst Canberra Airport staff, tenants and contractors.

# 2 Environment management framework

The environmental management framework at Canberra Airport is based on a system of continuous learning and improvement. Individual components of the environmental management framework are updated as required to ensure consistency with Regulations and evolving best practice standards.





## 2.1 AIRPORT ENVIRONMENT POLICY

The Canberra Airport Board of Directors has established and continues to endorse the following Airport Environment Policy:

- Leadership and promotion of the commitment to sustainable environmental management to all stakeholders including employees, tenants, adjacent landholders, and the community at large;
- Compliance with relevant environmental legislation;
- Continual improvement of environmental management, consequences, and activities;
- Identification, prevention, control, and minimisation of environmental performance impacts associated with Airport operations;
- Integration of environmental issues with Airport operating procedures;
- Measurement, monitoring, reporting, and improvement of environmental issues arising from Airport operations;
- Sustainable management of resources;
- Appropriate management of matters of natural, Indigenous, and heritage values;
- > Contribution to research on NTG and associated endangered species;
- Broad consultation with the community, government agencies, and other major stakeholders; and
- If pollution is discovered in soil or water across the airport site the Airport will aim to remediate the pollution to acceptable regulatory limits.

#### 2.2 ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

The Canberra Airport EMS, which was established in accordance with Australian/New Zealand Standard AS/NZS ISO14001:2004 Environmental Management Systems - Requirements With Guidance For Use, is the Airport's means to ensure all future development and operations are carried out according to industry best practice through a system of continual improvement.

It provides staff and external contractors with detailed guidance in relation to environmental systems and procedures at Canberra Airport. A comprehensive review of the Canberra Airport EMS is underway at the time of writing in line with the requirements of the revised AS/NZ ISO 14001:2016.

The EMS is more than a single document; it provides an overarching framework for managing environmental impacts at the Airport, environmental procedures, risk assessment, incident and hazard reporting, staff and contractor training, and general day-to-day responsibilities of staff. The EMS is the basis for a culture of ecologically sustainable working practices amongst Canberra Airport staff, tenants, and contractors.

Figure 2.2 shows the cycle of continual improvement embodied in the EMS. This continuous cycle of planning, implementation, checking, and review allows the EMS to respond to the changing situation at Canberra Airport and ensures the policies and procedures outlined in the EMS remain as effective and efficient as possible.



#### Figure 2.2 - Environment continuous improvement

Canberra Airport has a number of environment management plans including the FHMP, the Water Management Plan, the Threatened Species Management Plan and the Re-New Management Plan and each of these are discussed in Chapter 3 of the Environment Strategy.

## 2.3 ENVIRONMENTAL OBJECTIVES

The Airport's environmental objectives derive from its Airport Environment Policy and provide the basis for its environmental management. The objectives are to:

Maintain a systematic approach to environmental management, consistent with evolving best practice and international standards, and promoting continuous improvement.

Manage environmental impacts associated with:

- Natural or heritage values;
- Biota or habitat (particularly for threatened listed species and ecological communities);
- Air quality, including emission of ozone depleting substances and greenhouse gases;
- Surface and groundwater quality;
- Soil quality;
- Sites of significance to Indigenous people;
- Natural resources;
- Noise;
- Manage solid, liquid, and gaseous wastes;
- Encourage and address local community and Airport user contributions; and

Review and continuously improve environmental management by:

- Adopting environmental best practice;
- Sustainable resource use including waste minimisation and emission reduction;

- Monitoring and responding to changing Australian legislation and practices;
- > Conforming with relevant Australian and international standards;
- Conservation of natural, Indigenous, or heritage values; and
- Dissemination of strategy information to sub-lessees, Airport users, major stakeholders, and the local community.

Progress towards achieving the above objectives is constantly under review and reported annually to the Department of Infrastructure, Transport, Regional Development and Communications.

## 2.4 **BOARD OF DIRECTORS**

The Canberra Airport Board of Directors are responsible for:

- Providing the personnel, financial and technological resources to successfully implement the Environment Strategy; and
- > Providing leadership on future environmental sustainability initiatives.

#### 2.5 DIRECTOR OF PLANNING

The Director of Planning is responsible for:

- Monitoring the performance of Canberra Airport with respect to the Airport Environment Policy and the objectives and performance of the Environment Strategy and advising the Board of trends and performance;
- > Facilitating the Board's commitment to sustainable development;
- Ensuring Airport employees, including managers, are aware of their responsibilities under the Airport Environment Policy and strategies;
- Ensuring the Airport's Environment Strategy is implemented;
- Providing strategic advice to the Board on environmental performance and continual improvement; and
- Co-management of consultation meetings with ACT Government agencies, other major stakeholders and the public with the Environment Officer.

## 2.6 ENVIRONMENT OFFICER

The Environment Officer is responsible for:

- Providing support to the Director of Planning and Airport staff;
- Ensuring the environmental requirements of the Department of Infrastructure, Transport, Regional Development and Communications and the Department of Agriculture, Water and the Environment are met;
- Ensuring the Airport's actions are consistent with the Environment Strategy;
- > Developing, implementing and monitoring compliance with the EMS;
- Preparation of reports detailing the Airport's environmental performance;
- Co-management of consultation meetings with ACT Government agencies, other major stakeholders and the public with the Director of Planning; and
- > Investigate new environmental practices and principles.

#### 2.7 ENVIRONMENTAL TRAINING AND DEVELOPMENT

All Airport employees are required to understand the Airport Environment Policy as part of their operational and environmental awareness training. The Airport Environment Policy and Environment Strategy are discussed during the workplace induction process and employees are required to report environmental matters to the Airport's Environment Officer.

Performance reviews are used to determine the necessary training for all staff. Environmental training includes induction training for employees and contractors as well as other job specific environmental training as required.

Operational staff undergo training in their specific areas of duty, including the use of equipment and emergency procedures. Canberra Airport aims to encourage all staff, tenants and contractors to participate in environmental training so there is grassroots awareness and commitment to the implementation of the Environment Strategy through the EMS.

## 2.8 AIRPORT TENANTS AND CONTRACTORS

Tenants and contractors are responsible for the environmental management of their own activities and are encouraged to develop and maintain their own EMS in accordance with Australian/New Zealand Standard AS/NZS ISO14001:2016 Environmental Management Systems - Requirements with Guidance for Use.

Canberra Airport works with tenants and contractors at the airport to ensure environmental management procedures are in place to meet the requirements of the *Airports (Environment Protection) Regulations 1997* and to ensure best practice procedures and timely outcomes.

## 2.9 INCIDENTS AND CLEAN-UP

Standard Operating Procedures (SOP) are in place for hazardous material incidents and handling of unknown substances. The Canberra Airport Safety, Security and Environment Procedures (which incorporates the standard Construction Environmental Management Plan (CEMP) are also in place to mitigate environmental impacts during construction, including procedures for clean-up and incident reporting.

Canberra Airport encourages staff and contractors to maintain ongoing vigilance of aircraft and ground service equipment. Airport staff are required to report any environmental issues including hazards and/or incidents to the Airport's Environment Officer.

All airside vehicles are required to provide proof of annual maintenance checks to Canberra Airport. This continues to have a positive impact on reducing oil, fuel and hydraulic fuel spills from ground-based equipment and vehicles.

Environmental incident report forms are completed in the event of any environmental incident and hazard identification on airport. These are received by the Environment Officer, who manages the investigation and appropriate response, as well as entering the incident into the Airport's incident reporting database. All spills over five litres are reported to the AEO.

#### 2.10 CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN

Canberra Airport's standard CEMP fulfils the requirements of the *Airports (Environment Protection) Regulations 1997* and is consistent with the aims and practices required under the Green Star Certification Scheme.

The CEMP, in conjunction with the project specific Erosion and Sediment Control Plan provided by the contractor and approved by the AEO, forms the basis of environmental management during the planning and construction of a project.

## 2.11 ENVIRONMENT MONITORING

All studies and monitoring are designed and undertaken by persons with qualifications and experience relevant to the subject of the particular study or monitoring being conducted.

Studies and monitoring are conducted in accordance with the relevant Australian Standards and applicable legislation. Where standards and legislation do not exist, the professional judgement of the appropriately qualified and experienced person will form the basis of testing, measuring and sampling programs.

## 2.12 ENVIRONMENT AUDITING

Internal audits of the EMS are conducted annually as part of the review necessary for the preparation of the AER. The purpose of the audits is to verify that:

- Environment management procedures are being developed and implemented;
- Procedures have been established to monitor and control environmental issues;
- Documentation and records are maintained to demonstrate implementation of EMS; and
- Environmental issues are being effectively managed through the application of the EMS.

The Airport also undertakes a less regular 'gap analysis' of the EMS in consultation with the AEO, to ensure the EMS meets Australian/New Zealand Standard AS/NZS ISO14001:2016 Environmental Management Systems - Requirements With Guidance For Use, and appropriately addresses environmental risks.

Tenant audits are conducted to ensure tenants:

- Understand the Airport Environment Policy and this Environment Strategy;
- Understand their responsibilities in response the Airports (Environment Protection) Regulations 1997;
- Environmental management procedures are in place and implemented; and
- > Environmental training procedures are in place and implemented.

The latest tenant audits were conducted in 2018/19.

Canberra Airport staff have a co-operative relationship with tenants and conduct regular inspections, ensuring environmental measures are implemented and environmental incidents are promptly reported and urgent corrective actions are undertaken when required.

# CHAPTER 3 ENVIRONMENTAL ACTION PLANS



"Almost 10 tonnes of organic waste has been diverted from landfill and into the on-site worm farms at the Canberra Airport"

GLOBAL WORMING



# 3 Environmental action plans

The plans for passenger growth outlined in this 2020 Master Plan will result in the achievement of maximising the Airport's contribution to the region's economy and level of service to our community. This will result in more people using the facility, more aviation traffic, and more use of natural resources. Canberra Airport's aim is to mitigate the environmental impact of achieving this growth using the governance structure outlined in the Environment Strategy.

Canberra Airport's AER prepared for and reviewed by the Department of Infrastructure, Transport, Regional Development and Communications outlines the ongoing implementation of the Environment Strategy and the impact of development and operations on the environment at the Airport. The quality of the state of the environment at Canberra Airport is high, due to the effective environmental management of the Airport, in partnership with airlines and tenants.

Environmental issues that might reasonably be expected to be associated with the implementation of this 2020 Master Plan include:

- Impacts of aircraft noise and external land use planning and the impact of other noise sources;
- Effects on flora, fauna and land management;
- Stormwater management;
- Air, soil and water quality;
- Handling and storage of hazardous products;
- Indigenous and European heritage; and
- > Construction impacts.

The following sections assess these issues and outline plans for dealing with these environmental impacts in the context of continuous improvement.

Environmental action plans have been developed by the Airport to:

- Provide an overview of current ongoing management practices;
- Review and amend the objectives of the Environment Strategy;
- Review and establish an action plan for each issue; and
- > Identify monitoring and measurement programs.

Priority for completion of each objective has been categorised in each action plan as follows:

- O-Ongoing through implementation of Environment Strategy Initial Period;
- S-Short term within the Initial Period of the Environment Strategy (within 8 years);
- L-Long term beyond the Initial Period of the Environment Strategy (beyond 8 years).

# 3.1 WATER MANAGEMENT

There is the potential that Airport operations may impact water quality, especially at sites such as service stations. Service stations are required to have groundwater monitoring bores from which baseline data is initially collected prior to the commencement of operation. All groundwater bore monitoring will be in accordance with the Environment.

Canberra Airport's Contaminated Site Register lists decommissioned and other sites polluted prior to private ownership of the Airport.

Water pollution on the Airport site is treated consistently with the following approach:

- Consistent with the Canberra Airport Environment Policy, if pollution is discovered in soil or water across the Airport site the Airport will aim to remediate the pollution to acceptable regulatory limits;
- 2. Appropriate environmental investigations will be commissioned of qualified environmental experts; and
- 3. Advice will be sought from qualified environmental experts about how to reduce pollution to acceptable regulatory limits.

Stormwater flows will be managed in accordance with the Canberra Airport Water Management Plan. Canberra Airport has regularly monitored stormwater flows into and out of the airport since privatisation in 1998, with the exception of when flow rates have been too low to monitor stormwater. The monitoring will continue in accordance with the Water Management Plan.

## 3.1.1 OBJECTIVE

To continue to undertake all reasonable and practicable measures to manage the quality of water on Airport in accordance with the Canberra Airport Water Management Plan.

#### 3.1.2 OVERVIEW

Canberra Airport's 2016 Water Management Plan outlines actions by the Airport to demonstrate it will continue to undertake all reasonable and practicable measures to manage the quality of stormwater, groundwater and recycled water on Airport compliant with regulation 4.01 of the *Airports (Environment Protection) Regulations 1997.* Factors that may affect the quality of water on Airport include:

- Superphosphate and lime application in the upper catchment (off Airport land) and subsequent release of metals in the catchment soil;
- Sediment, thatch and nutrients from native and exotic grassland;
- Sediment from construction activities;
- Animal and bird faeces and organic matter from the upper catchment (off Airport) and on Airport;
- > Wear of tyres and brake pads and possible combustion of lubricating oils;
- Life cycle corrosion of roofs, roadside fittings, pipes and other metal objects;
- > Fuel storage and transfer facilities; and
- Maintenance facilities.

Canberra Airport has applied a number of structural and natural treatments to ensure there is no negative impact on stormwater quality entering or exiting the Airport and on groundwater quality.

In liaison with the AEO, Canberra Airport will review the Water Management Plan. The Water Management Plan is available on the Canberra Airport Website.

#### 3.1.3 STORMWATER

The Airport is located in a catchment, which has been modified over time through the installation of contour banks, to divert water around the main Airport runway and through the development of sediment control structures in the 1950s to minimise sediment reaching Lake Burley Griffin.

The majority of stormwater at the Airport is collected in a network of open and closed drains before being discharged to Woolshed Creek, Pialligo Brook, and via off-site drains to the Molonglo River. All flows ultimately drain to Lake Burley Griffin. Construction projects might reasonably be expected to have short term impacts on stormwater flows. Such impacts will be dealt with and managed through project environment management plans.

Stormwater flows may also change due to increased areas of impervious surfaces and due to the diversion of stormwater around and through developments. All developments, where such changes are regarded as likely, will be designed in accordance with the relevant Australian Standards.

The objective of the Canberra Airport Water Management Plan is to outline ongoing and new actions by Canberra Airport and to demonstrate the Airport will continue to undertake all reasonable and practical measures to manage the quality and harness the reuse of stormwater, groundwater, and recycled water on Airport. The Water Management Plan also outlines Canberra Airport's commitment to mitigate the use of potable water on Airport.

Quality control measures for stormwater in place at Canberra Airport include designs to reduce the velocity of stormwater flow, allowing for the natural filtration of sediments, catchment released metals, and nutrients. Reducing the flow rate also controls erosion and promotes infiltration and groundwater recharge, which is beneficial for the overall catchment. Furthermore, Standard Operating Procedures [SOPs] and comprehensive incident reporting procedures are also in place to mitigate any fuel or hazardous substances loss and outline subsequent clean-up procedures.

Canberra Airport will continue to work closely with the ACT Government and other neighbours to appropriately manage stormwater flows upstream and downstream of the Airport site.

The Canberra Airport site lies within three major catchments, including two catchments with upstream flows. These upstream catchment areas have been extensively modified since the 1930's to reduce the impact of direct overland flows onto the Airport and to reduce the amount of runoff and sediment reaching Lake Burley Griffin.

Historically, the upper catchment land-uses have been for agriculture and horticulture. The application of superphosphate and overgrazing in the upper catchment has washed sediment, excess nutrients, and animal and plant debris into the Airport swale system. The natural elements in the catchment soils, and the natural biological breakdown of thatch and bird and animal faecal matter, also contributes to nutrient and microorganism levels in stormwater samples. Water quality has been monitored at stormwater points entering and exiting the Airport since privatisation in 1998. Historical and current monitoring results show naturally high levels of analytes in the catchment soil and in the stormwater entering the Airport, and also show the condition of stormwater leaving the Airport site is no worse than that upgradient of the Airport. Canberra Airport itself does not contribute to elevated analyte levels in the lower catchment.

Water quality control measures have been incorporated in the design of new buildings, infrastructure, and landscaping. These measures are designed to reduce the velocity of stormwater flow, allowing for the natural filtration of sediment, catchment metals, and nutrients. The reduced flow also controls erosion and is designed to facilitate infiltration and groundwater recharge.

## 3.1.4 GROUNDWATER

Canberra Airport requires fuel and maintenance facilities to have appropriate bunded areas, separator systems and/or pollutant traps to minimise fuel or hazardous substance loss to stormwater. Tenants are required to service separator systems and pollutant traps on a regular basis and notify the Airport of any incidents that arise.

Groundwater monitoring wells are tested in accordance with the Canberra Airport Water Management Plan to measure contamination levels or to provide indicators of contamination.

Refer to the soil pollution section for information regarding contaminated sites.

#### Figure 3.1 - Non-potable water flowchart



#### 3.1.5 RECYCLED WATER

Two state-of-the-art water recycling systems are installed at Canberra Airport to recycle wastewater and are yet to be commissioned. Local standards and approvals from the then ActewAGL (now ICON Water) and ACT Health and Environment Protection Unit (EPU) have been received.

Subterranean water released by excavations of building sites will be treated and recycled for landscape and toilet flushing use.

#### 3.1.6 TRADE WASTE AGREEMENT

In the absence of an Australian Government standard, Canberra Airport has adopted the then ActewAGL (now ICON Water) local standard for trade waste. Individual agreements are obtained for each tenant including details on the installation and maintenance of waste disposal systems.

#### Table 3.1 - Water management action plan

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Water quality monitoring to be undertaken in accordance with the	0	Stormwater monitoring to be undertaken four times per year (once every season) subject to suitable rain events occurring	Report in AER
Canberra Airport <i>Water</i> Management Plan	0	Groundwater monitoring of baseline monitoring wells to be undertaken in accordance with the <i>Water Management</i> <i>Plan</i>	Report in AER
	L	Water Recycling monitoring to be undertaken in accordance with ACT Health, ACT EPU and ICON Water agreements	Report in AER

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Implementation and ongoing review of the <i>Water Management</i> <i>Plan</i>	S	Review the Water Management Plan	Reviewed Water Management Plan
	0	Maintain existing or increase the quality of stormwater flows out of the Airport in partnership with land managers of upstream inflows	Report in AER
	S	Agreement with the ACT Government for storm- water management downstream of the Airport site	Report in AER
	S	Formalise a local water quality standard for the Airport site from the Department of Infrastructure, Transport, Regional Development and Communications	Ongoing monitoring and trend analysis
	0	Provide detention mechanisms to manage up catchment inflows and to mitigate rain event peak flows arising from new Airport development	Provide details on detention mechanisms in AER as appropriate
Ongoing adoption of ACTEW local standard trade waste agreements	0	Individual ICON Water trade waste agreements to be adopted as required	Report changes to standard in AER

# 3.2 SOCIAL AND COMMUNITY ENGAGEMENT

Canberra Airport's objectives for social and community engagement are outlined in Table 3.2.

Table	3.2 -Socia	l and	community	engagement	action	plan
			•••••••			P

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Airport Environment Strategy advertised and made available to public	0	Airport Environment Strategy available free of charge on Airport Website. Hardcopy and thumb drive available for purchase at Airport reception	Report upload of Airport Environment Strategy in Annual Environment Report [AER]
Update Airport Website	0	Airport Website updated to include overview of environment and sustainable initiatives on Airport	Report changes in AER
Formal and informal liaison with Government	0	Tenant audits and ongoing consultation	Report in AER and tenant audit report
departments, airlines, aviation operators, tenants, and local	0	Community Aviation Consultation Group meetings	Report in AER
community	0	Public consultations	Report in AER
Provide opportunities for the community to learn about the Airport	0	Open days and tours to increase the awareness of Airport operations and environmental initiatives on Airport	Report in AER

# 3.3 AIR QUALITY AND OZONE DEPLETING SUBSTANCES

Air monitoring was conducted in 2018 and included monitoring for Benzene, Toluene, Ethylbenzene and Xylene [BTEX], Carbon Monoxide [CO], Ozone [O3], Nitrogen Dioxide [NO2] and Respirable Particulates [PM10 and PM2.5]. All results were below or within the data provided in the *Airports [Environment Protection] Regulations 1997*.

Furthermore, all results during the period showed levels well below required standards and complied with the National Environment Protection [Ambient Air Quality] Measures [NEPM] Guidelines. These results are consistent with previous air monitoring on - and off- Airport. No significant adverse impacts are expected from future Airport operations, including the growth outlined in this 2020 Master Plan. Further monitoring will be undertaken in accordance with the Environment Strategy.

## 3.3.1 OBJECTIVE

To maintain an overview of air quality at Canberra Airport and in the context of the ACT and to minimise Airport operation impact on air emissions.

#### 3.3.2 OVERVIEW

The maintenance of good air quality at Canberra Airport is important for the wellbeing of Airport users and workers as well as the surrounding community. Air quality monitoring at Canberra Airport shows results well below the National Environmental Protection Measures (NEPMs) and National Environment Protection (Ambient Air Quality) Measure.

The sources of air emissions at the Airport can be generally categorised as follows:

- > Emissions from auxiliary power units and ground power units;
- Airport industry and any other on Airport industrial activities;
- > Dark smoke emissions from Airservices Australia fire training activities;
- Ozone depleting substances;
- > Dust from construction activities; and
- > Emissions from the production of electricity.

Constant Descent Approach (CDA), Standard Instrument Departures (SIDS) and Standard Terminal Arrival Routes (STARS), Required Navigation Performance (RNP) approaches and departures are some of the environmental initiatives that have been introduced by Airservices Australia over the past ten years which have resulted in lower noise and emissions.

The Airservices Australia ARFF service are required to conduct "hot fire training" to ensure ARFF staff are trained to respond to Airport emergencies. A Dark Smoke Agreement has been signed between Airservices Australia and the Department of Infrastructure, Transport, Regional Development and Communications.

The CEMP addresses air quality issues including excessive exhaust emissions from construction machinery and airborne dust.

# Table 3.3 - Air quality action plan

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Maintain an overview of air quality at Canberra Airport and in the ACT	М	Air quality monitored every eight years and outcomes compared to relevant regulations and ACT results	Report in the AER
Continue to reduce	0	Upgrade vehicles and equipment when required to meet contemporary emission standards	Report upgrades in AER
vehicles and equipment	0	Regular servicing and maintenance of airside vehicle and equipment	Evidence required prior to annual airside licence and registration renewals
Continue to upgrade equipment to meet contemporary	0	Continued investigation in new technologies to meet contemporary standards	Report new technologies in AER
standards (including ozone and greenhouse gas emissions)	0	Maintain the refrigerant (including ozone depleting substance) database.	Database reviewed and updated annually
Implementation of the	0	Dust suppression to be implemented throughout the CEMP process	To be monitored through the CEMP process
CEMP	0	Air emissions mitigation to be implemented throughout the CEMP process	To be monitored through the CEMP process

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Continue to promote sustainable transport options for Airport users	0	Continue to encourage public transport (including interstate services) through advertising and promotions	Report new services in AER
and tenants	0	Continue to provide bicycle spaces and locker facilities	Report new facilities in AER
	0	Ensure infrastructure is in place, as far as practicable and commercially feasible, to reduce taxiing times for aircraft	Report new infrastructure in AER
Continue to assist Airlines to reduce fuel burn and greenhouse gas emissions	0	Support the airlines renewing their aircraft fleet over time with new generation aircraft	Report additional support in AER
	0	Work with Airservices Australia to implement Australian AATM Procedures	Report new AATM procedures in AER
Dark Smoke Agreement for ARFF	S	Ensure Deed of Agreement is in place for Dark Smoke Agreement between the ARFFS and the Department of Infrastructure, Transport, Regional Development and Communications	Report in AER

## 3.4 INDIGENOUS HERITAGE

A cultural heritage assessment of Canberra Airport was undertaken in 2001. This included a desktop assessment, a surface field assessment and salvage, and a subsurface test. These assessments concluded the vast majority of the Airport was of low archaeological sensitivity. A small strip of land at the very southern tip of the Airport was identified as having moderate sensitivity. Land development in this small strip required the site to be monitored during initial excavations and items of cultural significance provided to the appropriate ACT Heritage Unit, in accordance with procedures outlined in the approved Environment Strategy. When the site was developed no items of cultural significance were found. This strip has since been developed as a car park. A small remaining strip exists in the very south east corner of the Airport for which the archaeological sensitivity is unknown but is believed to be of either low or medium sensitivity. Similar procedures will be followed for this area when it is developed.

## 3.4.1 OBJECTIVE

To continue to manage Indigenous heritage sites in a culturally sensitive manner and in accordance with the *Environment Protection and Biodiversity Conservation Act* (EPBC Act).

## 3.4.2 OVERVIEW

In accordance with the previous Environment Strategies, cultural heritage assessments have been undertaken in potentially low archaeological sensitive areas affected by development, as identified in the 2001 Archaeological Assessment of the Airport.

Two sites, located in the southern end of Brindabella Business Park, were assessed in 2007 by the four Registered Aboriginal Organisations (RAO's) and qualified archaeological consultants. The surveys, which included scraping, did not find any significant items and there were no archaeological constraints or requirements identified. All reports were supplied to the AEO and the ACT Heritage Unit. The only remaining potential archaeological site is located in the south east corner of the Airport which is listed on the ACT Interim Heritage Places Register. The potential archaeological site in the south east corner of the Airport is not likely to be affected by development during the life of this Environment Strategy.

## Table 3.4 - Indigenous heritage action plan

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Record and relocate archaeological artefacts found in south east corner of Airport prior to development	L	Consult with the ACT Heritage Unit and RAO's regarding protocol for recording and relocation of artefacts	Report in AER and copy of reports forwarded to ACT Heritage Unit and AEO
Report, record, and relocate any archaeological artefacts	0	Contractors are required to report any artefacts unearthed during construction works to Canberra Airport and the AEO	Report in AER and copy of reports forwarded to ACT Heritage Unit and AEO
found during construction	0	Consult with the ACT Heritage Unit and RAO's regarding protocol for recording and relocation of artefacts	Report in AER and copy of reports forwarded to ACT Heritage Unit and AEO

## 3.5 EUROPEAN HERITAGE

In 2010, the then Department of the Environment approved the Fairbairn Heritage Management Plan (FMPH). All maintenance and development activity in Fairbairn, has and will continue to be, undertaken in accordance with the FHMP. Development plans for Fairbairn are outlined in Section 8.5 of the Canberra Airport Draft 2020 Master Plan. Developments that may impact on significant heritage values will continue to be in consultation with and following the approval by the Australian Government Department of Agriculture, Water and the Environment.

## 3.5.1 OBJECTIVE

To manage the heritage values of the Fairbairn precinct in a culturally sensitive manner in compliance with the FHMP as endorsed by the then Australian Government Department of the Environment.

## 3.5.2 OVERVIEW

The Fairbairn precinct is one of a number of permanent RAAF bases that were developed in World War II and continuously altered from the 1950s through to the 1990s. The former RAAF Base was sold as part of the Canberra Airport lease in May 1998. The Commonwealth Government retained a six year lease of Fairbairn as a condition of that sale.

Vacant possession of Fairbairn was handed over to Canberra Airport by the Commonwealth Government in June 2004 and the Airport has developed and revitalised Fairbairn since vacant possession in June 2004.

Demountable buildings have been removed, new buildings have been developed, the tree and townscape enhanced, and existing buildings have been modernised with upgraded services and a contemporary veneer for adaptive reuse.

This revitalisation program has provided Fairbairn with a new beginning.

A FHMP was approved by the then Department of the Environment in March 2010. The FHMP guides the management of the heritage values at Fairbairn and is considered in all development concepts. The FHMP is available on the Canberra Airport Website.

The heritage values for Fairbairn can be summarised as follows:

- The precinct has significant historic heritage value as a former operational RAAF airbase established during World War II;
- The former RAAF Base Fairbairn precinct, originally RAAF Station Canberra, has significant representative heritage value for its remnant ability to demonstrate the primary orthogonal, operational, and hierarchical planning characteristics of early to mid-20th century RAAF air bases in Australia; and
- The former RAAF Base Fairbairn precinct has significant heritage value for its direct association with the RAAF, primarily during World War II and to a lesser extent subsequently as a continuing operational facility until 2002.

The FHMP contains future development management policies for Fairbairn which may include, but not be limited to, the management of:

- The landscape character;
- Individual buildings (including demolition, reuse, or revitalisation);
- > New building guidelines; and
- > The ongoing management of the site.

Table 3.5 -	European	heritage	action plan

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
	0	Manage and develop Fairbairn in accordance with the FHMP	Report changes in AER
Implement FHMP and continue liaison with the Department of Agriculture Water and	0	Consult with Department of Agriculture, Water and the Environment, prior to those works or development likely to impact heritage values within Fairbairn	Report in AER
the Environment	0	If required, obtained approvals under the <i>EPBC Act</i>	Report in AER
	0	Continued liaison with Department of Agriculture, Water and the Environment and Department of Infrastructure, Transport, Regional Development and Communications	Report in AER

## 3.6 **ON-AIRPORT NOISE**

No complaints about on-airport noise have been received in the past five years, confirming the management of on-airport noise is effective. This is partly because Canberra Airport has a minimal number of residents living near the Airport and partly because of improved procedures for aircraft ground running.

Canberra Airport has used a variety of techniques to mitigate on-airport noise in the past, most successfully through the Canberra Airport Engine Ground Running Guidelines. These guidelines were put into place in February 2004 to ensure the noise caused by engine ground running for maintenance is conducted at an isolated area of the Airport. It also restricts the time of day ground running can occur. It is a requirement of operators that they operate in accordance with these guidelines.

## 3.6.1 OBJECTIVE

To minimise noise generation on Airport and to comply with the noise standards as stated in the *Airports (Environment Protection) Regulations 1997*.

## 3.6.2 OVERVIEW

The main contributors to on Airport noise are from:

- Ground running of aircraft;
- > Construction activities; and
- > Ground support operations.

Ground running of engines is generally required after aircraft maintenance. These engine run-ups are undertaken in accordance with the Canberra Airport Engine Ground Running Guidelines and in the isolated north-eastern corner of the Airport.

All airside ground service vehicles and equipment require evidence of regular servicing and maintenance prior to annual registration for airside use. This includes meeting noise emissions standards.

CEMPs also address and manage noise issues associated with construction.

Earth mounds, blast fencing, positioning of some buildings and landscaping on Airport have been incorporated successfully into building and landscaping design to minimise on-and-off Airport noise.

#### Table 3.6 - On Airport noise action plan

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Ongoing implementation of the Canberra Airport	0	Ongoing implementation of the Canberra Airport <i>Engine Ground Running Guidelines</i>	Report in AER
<i>Guidelines</i> and CEMP	0	Noise mitigation to be implemented through the CEMP process	To be monitored through the CEMP process
Continue to reduce noise from airside vehicles and equipment	0	Regular servicing and maintenance of airside vehicle and equipment	Evidence required prior to annual airside licence and registration renewals

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Continued implementation of initiatives (eg, mounding and landscaping to reduce noise impacts)	0	Noise mitigation initiatives incorporated in design principles for new buildings	Report in AER
Monitoring of noise complaints and conduct noise monitoring if significant increase in on Airport noise complaints	0	Noise complaint register updated and reviewed as required	Report in AER

# 3.7 SOIL POLLUTION

There is the potential Airport operations may impact soil quality, especially at sensitive sites where substances are located. Canberra Airport's Contaminated Site Register lists decommissioned sites polluted prior to private ownership of the Airport. Soil testing is conducted in areas that have proposed land use changes and/or if the area is likely to have experienced some contamination. Canberra Airport assesses potentially contaminated sites in accordance with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (ASC NEMP) as well as the PFAS National Environment Management Plan.

Soil pollution on the Airport site is treated consistently with the following approach:

- 1. Consistent with the Canberra Airport Environment Policy, if pollution is discovered in soil or water across the Airport site the Airport will aim to remediate the pollution to acceptable regulatory limits;
- 2. Appropriate environmental investigations will be commissioned of qualified environmental experts; and
- 3. Advice will be sought from qualified environmental experts about how to reduce pollution to acceptable regulatory limits.

## 3.7.1 OBJECTIVE

To ensure all occurrences of soil contamination at the Airport are recorded and procedures are in place to minimise risk on the surrounding environment. Remediation and ongoing monitoring of existing contamination is the responsibility of the tenant.

## 3.7.2 OVERVIEW

Sources that may cause soil pollution include:

- > Fuel storage and transfer facilities;
- > Aircraft maintenance facilities;
- > Chemical and other Hazmat storage;
- Underground storage tanks;
- Vehicle maintenance and washing;
- > Spills from aircraft and vehicles; and
- > Landscaping.

The potential for soil contamination is mitigated at Canberra Airport by applying appropriate management measures such as:

- Installing and maintaining separator system and pollutant traps;
- Ensuring up to date Safety Data Sheets (SDS);
- > Appropriate hazardous waste storage facilities;
- Standard incident reporting and clean-up procedures;
- Staff and tenant education;
- Documentation of vehicle maintenance checks;
- Removing contamination sources and remediating sites; and
- > Maintaining the Canberra Airport Contaminated Site Register.

In addition to mechanical systems, sites that have the potential to cause contamination have groundwater monitoring wells installed as early detection mechanisms for groundwater contamination.

The Airport has developed the Contaminated Site Register to list the location, type of contamination, test results, and any remediation activities that have been undertaken or are still required. The sites listed on the Canberra Airport Contaminated Site Register have had pollution caused by others, prior to the privatisation of the Airport. The sites listed on the Canberra Airport Contaminated Site Register include:

- > The former fuel farm near the Qantas terminal (now fully remediated);
- > The former (Shell, Mobil and Caltex) fuel farms on Nomad Drive;
- Groundwater irregularity northern triangle area of Majura Park;
- > A former underground storage facility at Fairbairn (now fully remediated);
- > The former Fairbairn fuel facility;
- > The ARFFS training area; and
- > The ARFFS Station.

When underground storage tanks, underground pipes or drums are found, the contamination source and material will be removed as far as reasonably possible and replaced with clean fill.

The contaminated fill is disposed of in accordance with relevant ACT and NSW guidelines. The soil is tested and results compared to the *Airports (Environment Protection) Regulations 1997* to demonstrate compliance.

If required, further testing and remediation is conducted subject to expert advice and in consultation with the AEO. The site will then be listed on the Contaminated Site Register and will include further remediation actions (as required) and ongoing monitoring regimes.

Table 3.7 - Soil pollution	n action plan
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OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Maintain the Canberra Airport Contaminated	0	Continue to develop and maintain the Contaminated Site Register	Report in AER
Site Register	0	Remediation of contaminated sites (as required)	Report in AER
Soil testing after lease expiry	0	On potentially contaminated sites, soil testing will be undertaken in accordance with the <i>Airports (Environment</i> <i>Protection) Regulations</i> <i>1997</i>	Report in AER

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
	0	All risk sites will be assessed prior to sublease expiry or termination for soil pollution and remediation, if required in accordance with the <i>Airports (Environment Protection) Regulations</i> 1997	Report in AER
Education and review of mitigation	0	Continue education of staff and tenants on the management of fuel and Hazmat products	Report in AER
measures	0	Review tenant mitigation measures as part of tenant audits	Report in AER and Tenant Audit Report

## **3.8 HAZARDOUS PRODUCTS**

As the Airport grows in accordance with this 2020 Master Plan, it is expected more hazardous goods will be handled and stored at the Airport by a variety of users.

Hazardous products on Airport generally consist of fuels, oils and chemicals. The management and storage of these products are undertaken in accordance with ACT Legislation. SOPs have been developed to respond to spills and to manage any emergency response required and the Canberra Airport Construction Environment Management Plan addresses the management of hazardous products during the construction of on-airport developments.

#### 3.8.1 OBJECTIVE

To minimise the use of hazardous products thereby reducing any potential impacts on the surrounding environment.

### 3.8.2 OVERVIEW

The management of dangerous goods and hazardous substances and their disposal is governed by ACT legislation as human health and safety is the primary issue. The sources of hazardous goods and substances on Airport that may have the potential to cause significant environmental damage or risk to human health (if not handled, stored, or removed correctly) includes fuels, oils, asbestos, and chemicals. Tenants are responsible for the disposal and storage of hazardous substances and are required to update their Workplace Health and Safety (WHS) manuals, staff training, and SDS. Dangerous goods and hazardous substances must be stored in secure bunded areas and, if required, have regularly maintained separator systems and/or interceptor traps to minimise any substance loss to stormwater as a result of an incident or spill. Tenants with bulk quantities of hazardous products (i.e. service stations) on the Airport site are audited annually by Canberra Airport.

Efficient and prompt emergency response procedures are essential for good management of hazardous products. Emergency response procedures are contained in the Airport's SOPs developed in consultation with industry, government agencies, and emergency organisations. These SOPs are incorporated in the Airport's EMS.

Spills and incidents have the potential to enter the stormwater system and enter waterways, pollute nearby soils and possibly impact on groundwater. Incident reporting procedures are in place and all relevant tenants and Canberra Airport have spill procedures and equipment available for the prompt and efficient clean-up of spills.

Emergency response exercises are carried out with either a desktop or field exercise carried out as per CASA requirements and may incorporate environmental elements.

Hazardous product substitution is ongoing and a number of products have been substituted where practical with non-hazardous and biodegradable products. These include office and vehicle cleaning products, fertilisers, and aerobic bacteria to degrade oil instead of using harsh detergents.

The Airport will, in consultation with the AEO, remain informed about and adhere to local and national guidance with regard to the safe handling of asbestos, together with guidelines about asbestos soil contamination.

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Review and update hazardous waste disposal information	0	Update SDS and hazardous waste as required in accordance with relevant ACT regulations	Report updates in AER
	0	Review SDS and hazardous waste disposal information as part of	Report in AER and Tenant Audit Report
Remove asbestos as required	0	Asbestos removal ongoing	Report removal in AER

#### Table 3.8 - Hazardous products action plan

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
	0	Continued implementation of incident and clean-up procedures and reporting	Report in AER
Monitor, clean-up, and report environmental incidents and educate staff and tenants	0	Continued implementation of incident and clean-up procedures and reporting Continue education of staff and tenants on leading best practice risk minimisation, including spill response and chemical handling Review procedures in response to outcomes from exercises and incidents Provide tenants with assistance to clean-up	Report in AER
	0	Review procedures in response to outcomes from exercises and incidents	Report in AER and Tenant Audit Report
	0	Provide tenants with assistance to clean-up	Report in AER
Substitute hazardous products with non-hazardous alternatives	0	Seek opportunity to replace hazardous products.	Report in AER

## 3.9 LAND MANAGEMENT

Construction at Canberra Airport may have a number of impacts, including soil erosion, generation and use of fill, generation of dust, and noise from equipment. To deal with the environmental impacts of construction, all major projects undertaken at Canberra Airport is subject to a CEMP including consideration of environmental factors including waste, air quality, soil erosion, construction noise, and potential siltation of stormwater.

The standard CEMP, in conjunction with project specific Erosion and Sediment Control Plans forms the basis of environmental management during the planning and construction of a project. The standard CEMP comprises the following:

- Measures to incorporate environmental considerations into the construction of the proposed developments;
- Environmental management measures to be implemented during construction; and
- Indicative environmental management checklists to assist with monitoring the implementation of environmental management obligations during construction.

## 3.9.1 OBJECTIVE

To ensure land management practices at the Airport are consistent with the safe operations of the Airport and the protection of natural values at the site.

### 3.9.2 OVERVIEW

Canberra Airport is located at the edge of the south west corner of the Majura Valley NTG community which supports listed threatened species such as the GED and GSM.

### 3.9.3 NATURAL TEMPERATE GRASSLAND

NTG of the Southern Tablelands and ACT is a listed threatened ecological community under the *EPBC Act* and supports vulnerable and endangered fauna such as the GED, GSM and the Perunga Grasshopper.

The NTG areas of the Airport are joined by other areas of NTG including the Majura Training Area adjacent. Canberra Airport has management plans in place to manage the NTG flora and fauna and has sponsored research on and off Airport dealing with both fauna and flora. This research has been contributed to the body of knowledge on NTG in the region.

The first detailed survey and mapping of the Airport vegetation was conducted in 2003/2004. NTG surveys on Airport were scheduled and postponed twice as the prolonged drought hindered the flowering and identification of sensitive species. The Airport was surveyed and mapped again in 2008/2009 and 2013/14 bringing the Airport mapping into line with current standards used in the ACT and NSW, and the National Recovery Plan for Natural Temperate Grassland of the Southern Tablelands (NSW and ACT): An Endangered Ecological Community, January 2006. Canberra Airport, at Table 3.9 - Land Management Action Plan, commits to undertake a survey of the NTG every five years. Figure 1.1 represents the latest survey.

The Threatened Species Management Plan updates and builds upon the 2004 Grassland Management Plan and includes the outcomes of the EPBC Act referrals and conditions. This Plan was approved by the then Australian Government Department of the Environment in satisfaction of one of the conditions of EPBC 2009/4748. The Threatened Species Management Plan was also developed to provide employees of Canberra Airport, and the wider community, with a better understanding of NTG and listed threatened species on Airport and how they are managed in response to contemporary research and practices.

The Airport has recently completed a three-year trial with Greening Australia and the National Botanical Gardens on methods to cultivate NTG including broadacre approaches. The outcomes of this research have been shared with the broader Grassland community including Friends of the Grasslands. The Canberra Airport Threatened Species Management Plan is available on the Canberra Airport Website.

#### 3.9.4 GRASSLAND EARLESS DRAGON

GED (Tympanocryptis Pinguicolla) are listed as endangered under the *EPBC Act.* GED were first recorded at the Airport in 1996 and comprehensive GED surveys have been conducted in 1999, 2001, 2004, 2007, 2008, 2009, 2010, 2013, 2015, 2017 and 2019. The last sighting of GED on Airport was in 2017. Historic surveys show GED have predominately been sighted in the northern section of the Airport.

A protocol was developed in 2001 for the identification of GED during construction works. This protocol has been successful in finding eight GED in 2001 during runway widening works. The protocol has been used since and no GED have been found. In 2013 the University of Canberra finalised a report outlining recommendations about GED on Airport, namely the ongoing surveying of the site for GED.

#### 3.9.5 GOLDEN SUN MOTH

The GSM (Synemon Plana) is listed as critically endangered under the *EPBC Act.* GSM were first observed on Airport in November 1993. Surveys have been undertaken on Airport in 2000, 2003, 2006, 2007 and 2009, 2011, 2013/14 and 2017/18.

#### 3.9.6 PERUNGA GRASSHOPPER

The Perunga Grasshopper (Perunga Ochracea) is listed as vulnerable under the ACT Nature Conservation Act 2014. The Perunga Grasshopper has been observed during grassland surveys.

#### 3.9.7 BIRD AND ANIMAL HAZARD MANAGEMENT

Canberra Airport's Bird and Wildlife Management Program is supported by the Bird and Wildlife Management Plan, incorporated within the Canberra Airport, Airport Operations Manual.

Birds in general are a threat to air safety, particularly if they are present on the Airport and in the vicinity of runways. Precautions are also taken to prevent access by animals onto the movement area where they would pose a serious hazard for aircraft operations.

The Airport's consultant biologist and bird management expert conducts regular audits of bird activity on the Airport and the surrounding areas, as well as providing ongoing training of Airport operations staff in bird identification and harassment.

A re-seeding protocol has been developed and implemented and has successfully reduced the level of bird attractiveness of seed being sown for the purposes of soil stabilisation following works. All development on Airport is conducted in such a way as to minimise the risk of bird and animal attraction. Measures to reduce bird attraction include, but are not limited to:

- The briefing of Airport operations staff and contractors on measures to avoid bird attraction (eg waste minimisation, avoidance of water ponding etc);
- > The installation of appropriate waste facilities during construction and around public areas, including secured bin lids;
- > The use of non-bird attractant species of plants for landscaping;
- The use of wires, nets or spikes on exposed surfaces to minimise bird roosting opportunities;
- > The minimisation of water ponding to reduce attraction to waterbirds;
- Mowing protocol with the objective to minimise the opportunity for grasses to set seed thereby deterring birds; and
- > Ongoing involvement in the Australasian Aviation Wildlife Hazard Group.

## 3.9.8 LANDSCAPING PLAN

Landscaping plans for the Airport has been developed under the guiding principle the Airport is the focal entry point into the Nation's Capital and compliments and reinforces Burley Griffin's vision of Canberra as the Garden City.

## Table 3.9 - Land management action plan

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Manage NTG and listed threatened species on Airport	0	Manage the natural values on Airport in accordance with the Threatened Species Management Plan	Report changes in AER
	0	Comply with approval and conditions under the <i>EPBC Act</i>	Report in AER
	L	Grassland surveys to be undertaken every eight years	Report in AER
NTG and listed threatened species monitoring	S	GED surveys to be undertaken every two years	Report in AER
	S	GSM surveys to be undertaken every two years	Report in AER
	0	Annual weed spraying in areas of high quality grassland (weather dependent)	Report in AER
	0	Weed spraying along runway, taxiway and airside edges	Report in AER
weed management	0	Cables placed in conduits to minimise soil disturbance	Report in AER
	0	Mowing machinery cleaned to minimise weed transfer	Report in AER
	0	Mowing of grassland from highest to lowest quality	Report in AER
Review and update Bird and Animal Hazards and	0	Management Plans reviewed annually	Report in AER
Wildlife Hazards Management Plan	0	Ongoing monitoring of bird and animal activity	Report in AER

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Landscape Master Plan	0	Enhancement of the parkland design	Report in AER
Retention of high quality grassland, enhancement and revegetation of lower quality areas	0	Promote the diversity of the grassland maintained	Report in AER
Implementation of GED Protocol	0	Implementation of GED Protocol during construction works	Report in AER

## 3.10 NATURAL RESOURCES

Activities on the Airport site are users of natural resources such as electricity, water, and fossil fuels. As visitation to the site grows the use of such resources will continue to grow.

To deal with this issue, Canberra Airport aims to improve resource use efficiency through the adoption of more efficient design and commercially sustainable technologies. These may include:

- Further improvements in water and energy efficiency at the Airport through the adoption of passive design, new technologies, recycling and reuse;
- > The continued application of sustainability principles to development of the Airport; and
- The monitoring of ground transport use and identification of efficiencies in both time and resource use.

Canberra Airport is a member of the Green Building Council of Australia. The Airport is committed to maximising the environmental sustainability of building development and operations on the Airport through the application of principles promoted by the Green Building Council.

Landscaping design at Canberra Airport includes the contouring of concrete paths and patios towards garden beds, which have a finished level below the footpath and stormwater inlets. Gravel is also placed at the edge of paved paths to allow infiltration of excess runoff and large grassed areas are contoured for optimal stormwater infiltration. The building at 3 Molonglo Drive in the Brindabella Business Park is a good example of water sensitive urban design in practice at Canberra Airport, as pictured in Figure 3.2. It includes a large landscaped swale beneath the entrance to the building.

Water sensitive urban design is utilised throughout the Airport site, as part of new developments and ongoing environmental management and maintenance of the Airport.



#### Figure 3.2 - Landscaped swale, 3 Molonglo Drive, Brindabella Business Park

#### Water conservation

Canberra Airport's water conservation initiatives include:

- Garden beds re-mulched on a regular basis;
- Wetting agents used to aid with water penetration and to minimise water loss;
- Use of water storage crystals in garden beds to better utilise rainwater and runoff;
- Garden beds weeded regularly to reduce competition with landscape plants for water;
- Lawns regularly aerated to improve water absorption;
- Rubber stabilisers used on high traffic lawns to reduce the need for lawn re- establishment;
- > Drip watering systems used in garden beds;

- Sub-surface irrigation in lawn areas introduced outside some newer buildings eliminating evaporation in the watering process;
- Rain water harvesting;
- Water efficient cooling towers;
- Reduced flow shower heads;
- > Waterless urinals;
- > Building management system designed to detect active water leaks; and
- > The employment of licensed plumbers on staff.

## Water recycling

Two state-of-the-art Aquacell water recycling systems have been installed at Canberra Airport to recycle wastewater. Whilst the treated water is assessed as drinking quality the recycled water will initially be used in toilet flushing and for irrigation. The Aquacell water recycling system uses a three-phase filtration method to recycle wastewater as shown in Figure 3.3. The stages are as follows:

- 1. Aerobic biological treatment to aerate effluent and break down impurities;
- 2. Ultra-filtration to block particles, bacteria, and viruses bypassing the water through a special self-cleaning membrane with microscopic pores; and
- 3. Ultra violet light to provide protection against possible bacteria re-growth and to produce chemical free sterile water.

The water recycling system has the potential to treat approximately 100,000 litres of wastewater every day. The Aquacell water recycling system is designed to reduce daily potable water consumption on Airport from 15-20 litres per person per day to about five litres per person per day.





## Greenhouse gas emissions

Canberra Airport emits greenhouse gas emissions in its operations, largely through the heating, cooling, and operation of buildings. In addition, Airport ground operations emit small amounts of greenhouse gas, almost entirely from the burning of petrol or diesel in the Airport's vehicles and ground service equipment. As ground service activities grow, as a consequence of growth in aviation operations and more organisations take up office space, greenhouse gasses are expected to increase.

The Airport has massively reduced the greenhouse gas output of its buildings by progressively designing and constructing buildings that far exceed the Commonwealth's building energy requirements. Some of the newest buildings on the Airport utilise a technology called trigeneration, which means that along with the other sustainability initiatives incorporated in the buildings, these buildings reduce carbon emissions by some 75 percent when compared with conventional buildings.

#### Greenhouse gas emissions by airlines

Airlines and other aviation operators emit greenhouse gasses in their operations. While aircraft efficiency has, and will continue to improve over time, greenhouse gas emissions by airlines are expected to grow as the number of passengers and volume of airfreight grows over time.

Air travel on many routes can be a more carbon dioxide efficient form of transport than car travel, due largely to the fact that Airlines have higher load factors than compared to other modes of transport and shorter distances between cities. Air travel is the desired mode of travel by the public for distances between 400 kilometres and 800 kilometres and the preferred choice for distances over 800 kilometres. Thus, the growth in air travel must be considered in light of the greenhouse emissions compared with other forms of transport, most notably car transport.

Canberra Airport has very little impact on the efficiency of individual aircraft as this is the responsibility of the aircraft manufacturers and airlines. The airlines have initiatives in place to reduce fuel burn, hence a reduction in greenhouse gas emissions, such as optimising aircraft take-off weight and by implementing Airservices Australia Air Traffic Management [AATM] Procedures.

Airservices Australia, as the manager of aircraft flight paths in Australia continues to work with the airlines, airports, and the Australian community to achieve greater efficiencies. Constant Descent Approach [CDA], Standard Instrument Departures [SIDs], Standard Terminal Arrival Routes [STARs] and Required Navigation Performance [RNP] approaches and departures are some of the environmental initiatives that have been introduced by Airservices Australia at Canberra Airport which have resulted in lower noise and emissions.

Canberra Airport actively supports the above procedures and is urging all operators with capable aircraft to expeditiously commence using these procedures.

Canberra Airport is also playing a major role in reducing the airlines greenhouse gas emissions by ensuring, as far as practicable and commercially feasible, Airport infrastructure is designed to minimise the delays to aircraft whilst taxiing or at the terminal. For this reason, the Airport plans to continue to work with airlines, government agencies, Airservices Australia, and the community to provide sufficient runway, taxiway, navigation aids, aprons, terminal and other aviation infrastructure capacity to ensure aircraft can operate without delays inflight or whilst taxiing.

Air monitoring in and around Canberra Airport has shown no adverse impact from aviation activities and results are well within required standards.

# Energy targets

All buildings are encouraged to minimise energy usage and operating costs without a reduction in accommodation standards. Buildings at Canberra Airport are designed to achieve a minimum of 4.5 stars for the base building, in response to the NABERS simulation and design review guidelines. Buildings are also designed to achieve a minimum 4 Stars under the Green Star Office Design rating scheme, with an aim for each new project to also achieve 5 Stars under Green Star where possible. Most recently 3 Molonglo Drive located in the Brindabella Business Park, has been awarded 5 Star Green Star status.

## Design principles

Canberra Airport's design principles include the requirement that the development must provide 'A' grade commercial office space as well as the intention to aim for the following:

- To provide a pleasant work environment that enables and encourages staff interaction and productivity;
- Allow for the maximum flexibility of internal spaces;
- Maximise the use of natural light into the workspace;
- Minimise energy consumption;
- Conform to all Australian Standards, building codes and standards;
- The base building design should enable the retrofit of new technologies during the life of the building;
- Incorporate a high level of building safety;
- Install energy and water meters to monitor and improve efficiency and compliance with design;
- Maximum use of thermal mass in buildings;
- > External shades and/or double-glazing for insulation;
- Insulation to roof and walls; and
- Solar initiatives, including solar hot water.

#### 3.10.1 OBJECTIVE

To continue to minimise the use of natural resources by applying best practice conservation standards, Green Building Council's general principles, and investigating new technologies.

#### 3.10.2 OVERVIEW

The Airport is a leader in implementing ways to minimise consumption during construction and life cycle management of infrastructure by adopting more efficient technologies, reuse of product, procurement of long-life cycle quality product, and adaptive reuse of existing buildings.

Canberra Airport's green initiatives, including actions taken to manage the Airport's carbon footprint are available in the Airport's website. Further work will occur in this area, commencing with the development of an Energy Strategy for the Airport site over the short term.

## 3.10.3 CARBON REDUCTION STRATEGY

The main areas in which energy is used, producing greenhouse gas emissions on Airport, include:

- Aircraft operations (stationary aircraft and ground-based aircraft movement);
- Heating and cooling buildings;
- Lighting of runways, aircraft apron, approach lighting, roads, car parks, and buildings;
- Motor vehicles and plants (both airside and landside);
- Equipment including office and aviation;
- > Public amenity services; and
- Maintenance activities.

Energy consumption is reduced by applying energy conservation initiatives such as those shown in Figure 3.4. Canberra Airport's policy is to adopt Green Building Council's Green Star principles and to design new buildings to minimum 4 Star Green Star and 5 Star NABERS.

Trigeneration plants are available for use in the new office precincts and in the new terminal, which will dramatically reduce energy use, carbon dioxide and greenhouse gas emissions. The plants are powered by natural gas and excess heat is captured to heat the buildings in winter and cool them in summer. The trigeneration plants have the potential to produce a power surplus which can be sold back to the grid as green electricity. Canberra Airport hopes to provide trigeneration power for recharging and aircraft energy needs at the terminal thereby significantly reducing greenhouse gas emissions.



# Figure 3.4 - Sustainability management flowchart

**KEY OUTCOMES AND PERFORMANCE MEASURES** 

REDUCTION IN ENERGY USE AND GREENHOUSE GAS EMISSIONS

reporting



REDUCTION IN POTABLE WATER CONSUMPTION



REDUCTION IN RAW MATERIAL USE AND INCREASE IN RECYCLING RATES



#### 3.10.4 SUSTAINABLE WATER STRATEGY

The main areas of potable and non-potable water usage on Airport include:

- Fire fighting purposes (including training);
- Car wash facilities;
- Cooling towers;
- > Amenities in buildings; and

Rainwater is treated and used in the new terminal to reduce reliance on potable water. Airport grounds are irrigated using recycled rainwater and groundwater.

#### 3.10.5 MATERIALS AND WASTE REDUCTION STRATEGY

Canberra Airport has adopted the Green Building Council policy to reuse, reduce, and recycle waste from Airport operations. Some of the initiatives used on Airport include:

- Adaptive reuse of existing buildings and materials;
- Buildings at Fairbairn have been renovated and adapted for reuse where possible;
- Materials from an old blast fence reused in a new blast fence;
- Disused taxiway and apron base materials recovered and used to form new or to consolidate existing airside roads;
- > Fuel and water tanks relocated to other sites off and on Airport;
- Steel, concrete and other building products from demolished buildings reused or recycled;
- > An old hanger relocated off Airport to be used as a shed.

#### 3.10.6 USE OF RECYCLED MATERIALS

Buildings are constructed with a high percentage of recycled materials, including postconsumer concrete, fly ash, steel, and timber.

#### 3.10.7 WASTE GENERATION

Waste streams at Canberra Airport include construction, demolition, industrial, office and maintenance. Waste management and minimisation issues relating to construction and demolition are covered in the standard Construction Environmental Management Plan [CEMP]. Construction waste is recycled in accordance with Green Star principles.

The Airport's CEMP requires all construction contractors to have construction waste sorted and recycled where possible. Approximately 80 percent of construction waste is reused or recycled. Canberra Airport will investigate other avenues for waste minimisation, commencing with the development of a Waste Strategy for the Airport site over the short term.

#### 3.10.8 GREEN WASTE

Leaves, grass clippings, and dirt swept from Airport roads and aerodrome are composted on site. Felled trees are mulched and used on gardens on and off Airport. Pruned materials are taken to green waste sites for mulching and reuse.

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Develop new initiatives for alternative energy use across the Airport	S	Canberra Airport Energy Strategy	
Apply Green Building Council Green Star Principles	0	Base building modelled to minimum 4 Star Green Star	
	0	Base building modelled to minimum 5 Star NABERS	
Monitoring of energy and water efficiency in all new buildings	0	Active water leak detection through building management system	
	0	Buildings sub-metered for electricity and water use, quarterly review of energy and water usage	

#### Table 3.10 - Natural resource management action plan

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
Improve water efficiency	0	Reduce the Airport demand on potable water supply	Monitor water usage
	0	The reuse of subterranean water from building basements	Metered
Develop new initiatives for waste management across the Airport site	S	Canberra Airport Waste Strategy	Report in AER
Reduce, reuse, and recycle	0	Continue implementation and management of twin bin system in office park	Report changes in AER
	0	Investigate recycled products used in new buildings (subject to building regulations)	Report additional initiatives in AER
	0	Continued adaptive reuse of buildings at Fairbairn (subject to building regulations and asbestos)	Report in AER
Record construction waste	0	Contractors to report on waste generated and recycled	Monitor through CEMP process
Continue to promote sustainable transport options for Airport users and tenants	0	Continue to encourage public transport through advertising and promotions	Report new services in AER
	S	Providing facilities for regional bus services	Report new services in AER
Continue to assist Airlines to reduce fuel burn and greenhouse gas emissions	0	Ensure infrastructure is in place, as far as practicable and commercially feasible, to reduce taxiing times for aircraft	Report new infrastructure in AER
	0	Supports the airlines renewing their aircraft fleet over time with new	Report additional support in AER

OBJECTIVES	PRIORITY	INITIATIVES	MONITORING & REPORTING
	0	Work with Airservices Australia, airlines, CASA and the community to implement environmentally efficient Australian Air Traffic Management (AATM) Procedures	Report new AATM procedures in AER