ENVIRONMENT STRATEGY

CONTENTS

11.1 OVERVIEW AND OBJECTIVES

The Environment Strategy is the principal document to ensure the responsible management of environmental risks and resources at Launceston Airport. This strategy is divided into categories of environmental aspects. Within each of these categories, objectives are outlined and measurable actions and targets are identified.

Final responsibility for environmental management at Launceston Airport lies with the APAL Board, the General Manager and appointed employees. All airport staff and businesses are required to meet the requirements of the Airports Act as part of their daily operations.

This Environment Strategy is the fifth strategy developed for managing environmental issues arising from the activities and operations at Launceston Airport. This Environment Strategy replaces the 2015 strategy developed by APAL in accordance with the Airports Act and the *Airports Regulations 1997* and the *Airports (Environment Protection) Regulations 1997*.

While Launceston Airport has a legislated and social responsibility to effectively manage broad environmental issues across its precincts, airport tenants that sub-lease sections of the airport land and/or building space from APAL are directly responsible for their organisation's environmental performance, including their sub-lessees, contractors and subcontractors.

Figure 11.1 provides an overview of the environmental and heritage values of Launceston Airport.

11.1.1 LAUNCESTON AIRPORT'S ENVIRONMENT STRATEGY OBJECTIVES

The objectives of the Environment Strategy are to:

- Continually improve environmental management practices
- Ensure Aboriginal and historic heritage sites are protected
- Ensure strong stewardship of the physical environment
- Meet all compliance obligations and maintain the goodwill of regulators, passengers and the community
- Future-proof the environmental value of the site.

These objectives have been developed to provide overall direction to the strategy and encompass multiple environmental aspects over which the airport has an impact (in Table 11.1). Each environmental aspect represents a grouping of environmental management considerations with a common focus that are used to manage the airport's environmental impacts. These aspect groupings are useful for day-to day implementation of the strategy via the airport's Environmental Management Framework.

FIGURE 11.1
ENVIRONMENT AND HERITAGE VALUES

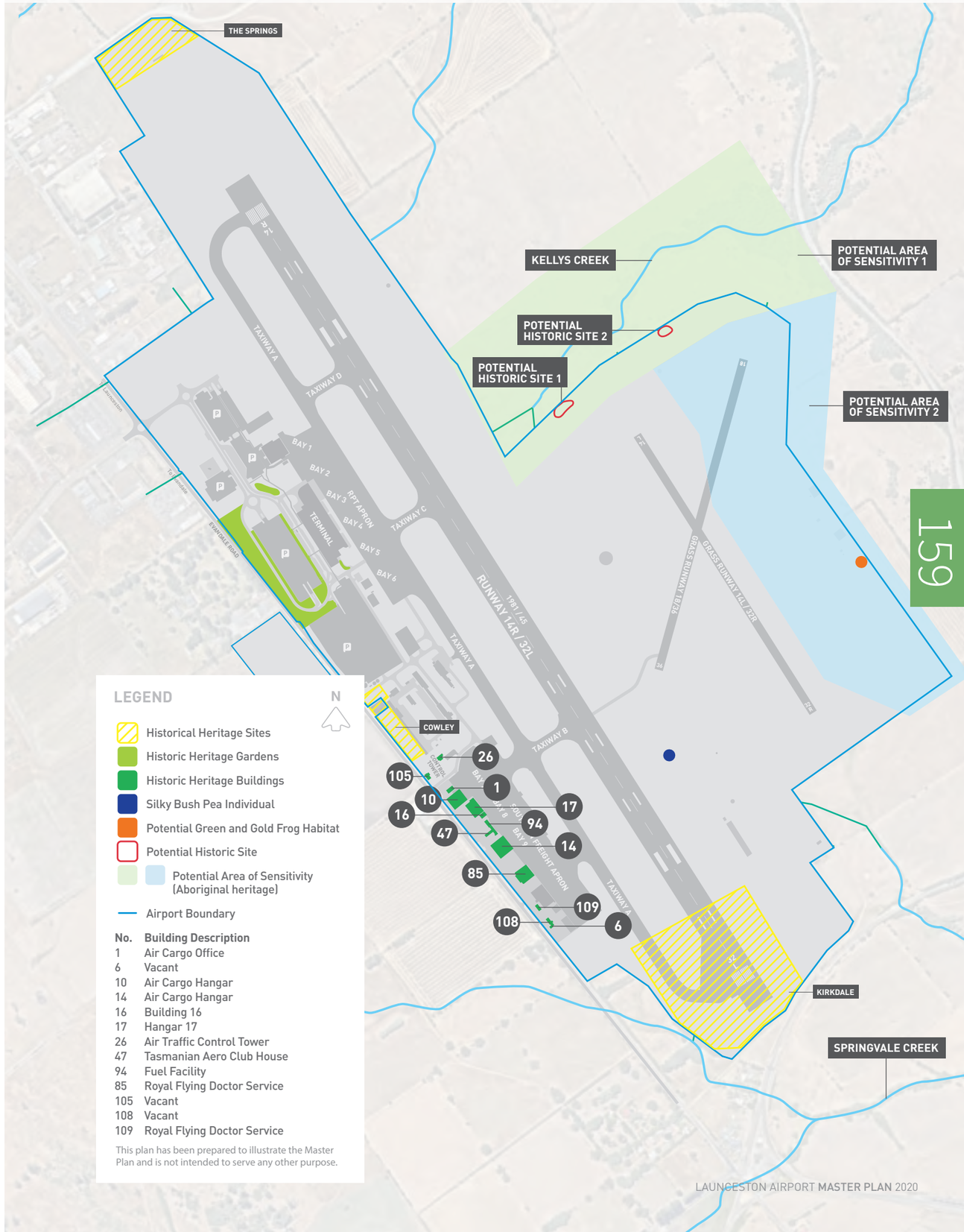


TABLE 11.1 RELATIONSHIP BETWEEN OVERALL STRATEGY OBJECTIVES AND ENVIRONMENTAL ASPECTS

ASPECTS	OVERALL OBJECTIVES				
	Continually improve environmental management practices	Ensure Aboriginal and historic heritage sites are protected	Ensure strong stewardship of the physical environment	Meet all compliance obligations and maintain the goodwill of regulators, passengers and the community	Future-proof the environmental value of the site
Environmental management	✔	✔	✔	✔	✔
Energy management and climate change	✔			✔	✔
Water consumption management	✔		✔	✔	✔
Water quality – surface water and groundwater	✔		✔	✔	✔
Waste management	✔		✔	✔	✔
Biodiversity and conservation management	✔		✔	✔	✔
Land management	✔		✔	✔	✔
Ground-based noise	✔		✔	✔	✔
Air quality	✔		✔	✔	✔
Cultural and historic heritage	✔	✔		✔	
Hazardous materials	✔		✔	✔	✔

Note: any air quality impacts, noise impacts and greenhouse gas emissions that are directly attributable to aircraft are subject to different legislation and are outside of the airport's direct operational control. These aspects are therefore outside the scope of the Environment Strategy.

11.1.2 HISTORY

The original inhabitants of the airport site and surrounds were Aboriginal people known to belong to the North Midlands Nation. This 'tribe' or 'language unit' consisted of several bands who ranged from the mouth of the Tamar Estuary in the north, to St. Peters Pass in the South.

The district was first visited by Europeans in 1806 and land granted to David Gibson in 1809. The land was primarily used for grazing sheep.

The Home Territories Office purchased the airport site (Western Junction Aerodrome) in 1929, becoming the first official Commonwealth aerodrome in Tasmania. The first commercial flights were made by Holyman Bros Ltd in 1932 to Flinders Island.

The aerodrome became a Royal Australian Air Force (RAAF) training base in 1940 and trained more than 1,800 personnel until the RAAF departure in 1946 after World War II.

A major redevelopment was undertaken by the Commonwealth Government in the early 1960s that included a new terminal, apron and lengthening of the runway and taxiway system. The works included extensive landscaping of the terminal area.

The airport was corporatised in 1988 under the Federal Airports Corporation. In May 1998, with the privatisation of airports in Australia under the Airports Act, the lease was purchased by APAL.

11.1.3 REQUIREMENTS OF THE AIRPORTS ACT 1996

In accordance with the requirements under the *Airports Act 1996*, the Launceston Airport Environment Strategy must include:

- Launceston Airport's objectives for the environmental management of the airport
- The areas (if any) within the airport site which Launceston Airport, in consultation with state and federal conservation bodies, identifies as 'environmentally significant'
- The sources of environmental impact associated with airport operations
- The studies, reviews and monitoring to be carried out by Launceston Airport in connection with the environmental impact associated with airport operations
- The time frames for completion of those studies and reviews, and for reporting on that monitoring
- The specific measures to be carried out by Launceston Airport for the purposes of preventing, controlling or reducing the environmental impact associated with airport operations
- The time frames for completion of those specific measures
- Details of the consultation undertaken in preparing the strategy (including the outcome of the consultation)
- Such other matters (if any) as are specified in the relevant regulations.

The environmental aspects addressed in the Environment Strategy are:

- Environmental management
- Energy management and climate change
- Water consumption management
- Water quality – surface water
- Water quality – groundwater
- Waste management
- Biodiversity and conservation management
- Land management
- Air quality
- Cultural and historic heritage
- Ground-based noise
- Hazardous materials.

11.1.4 LEGAL BASIS FOR AIRPORT ENVIRONMENT STRATEGY (AES)

Once the AES is approved by the Minister for Infrastructure, Transport and Regional Development (the Minister), Launceston Airport and all airport-based businesses including tenants and contractors are required to take all reasonable steps to meet the requirements outlined in the AES. The Commonwealth's Airport Environment Officer (AEO) can enforce these requirements.

A copy of the AES is available for all tenants, contractors and current business partners once approved by the Minister and during the strategy period for all new tenants, contractors and business partners wishing to operate on Launceston Airport.

11.2 STAKEHOLDER CONSULTATION

As part of the formal Master Planning process, Launceston Airport has sought input from the following stakeholders for the Airport Environment Strategy:

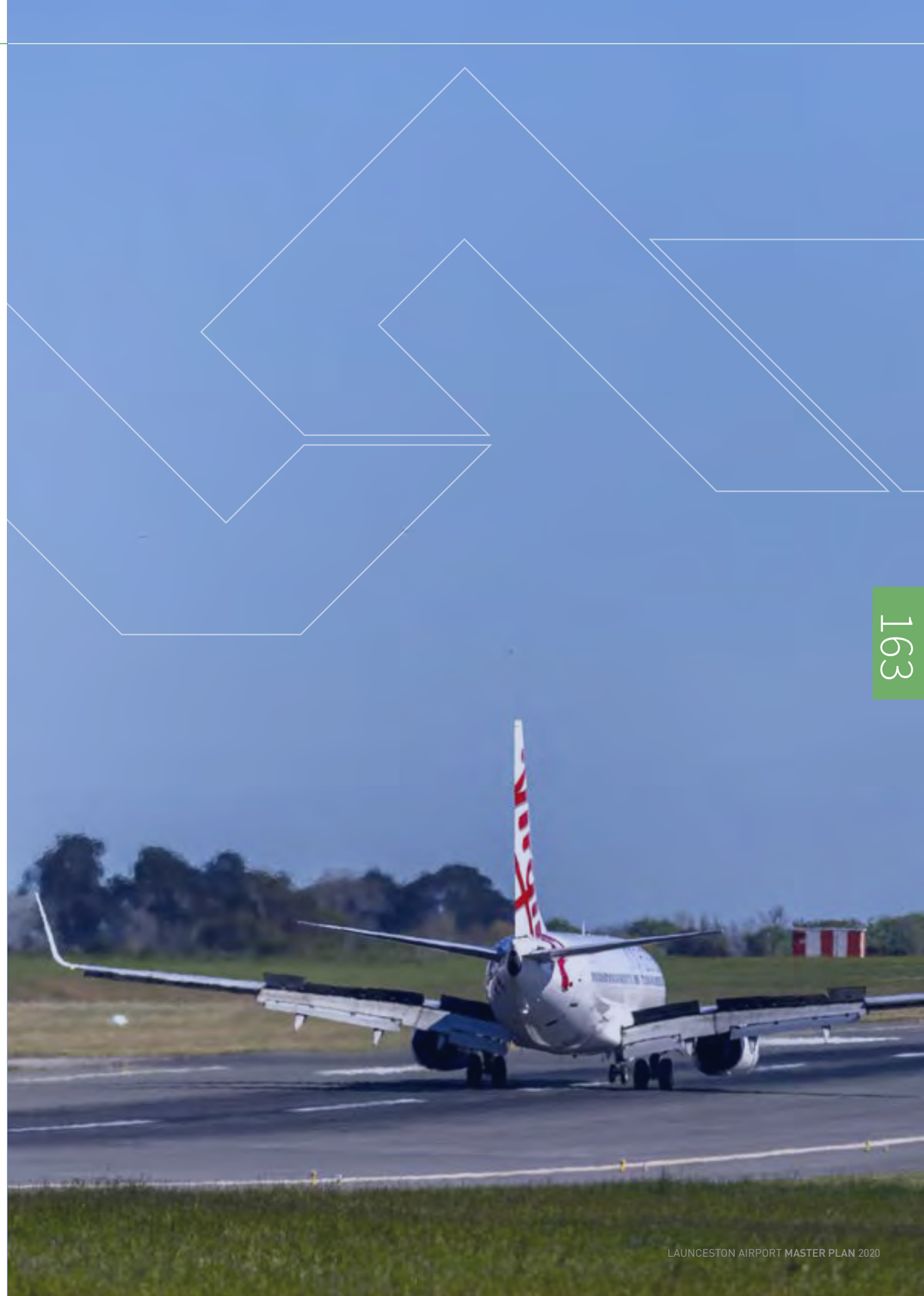
- The Commonwealth Department of Infrastructure, Transport, Regional Development and Communications, whose representative – the Airport Environment Officer – provided detailed feedback on an early exposure draft of this document
- The Commonwealth Department of Agriculture, Water and the Environment was present when a presentation of the exposure draft of the document was made in August 2019, and through formalised feedback on the exposure draft
- The Tasmanian Department of Primary Industries, Parks, Water and Environment, who have provided feedback on an early exposure draft of this document
- The Community Aviation Consultation Group
- Community, state and Commonwealth agencies
- Local government authorities
- Airservices and CASA
- PFAS Round Table that includes state department representation, APAL and Airservices.
- Meetings with local environmental groups
- Through the development of the Launceston Airport Aboriginal Heritage Management Plan (Aboriginal Land Council Tasmania; Aboriginal Elders Council of Tasmania; Aboriginal Heritage Tasmania).

Further, this strategy has drawn extensively on the ongoing stakeholder engagement that forms a vital component of the operation of Launceston Airport's Environmental Management System (EMS). Specifically, this has involved:

- Consultation with Department of Infrastructure, Transport, Regional Development and Communications in relation to managing approvals and referral processes
- Regular discussions with Tasmanian EPA, the Tasmanian Department of Primary Industries, Parks, Water and Environment in relation to managing environmental impacts
- Discussions with Aboriginal Heritage Tasmania in relation to reviewing (Cultural) Heritage Management Plan and implementing recommendations
- Consultation with contractors, tenants, monitoring professionals and technical advisors.

A copy of the final Environment Strategy will be available to tenants, contractors, airport users and the local community via the Launceston Airport website. This will be undertaken within three months of the Master Plan's approval by the Minister.

All groups will be notified of its finalisation via internal and external communications that will include relevant web links. A limited number of hard copies will also be made available. More information about the consultation in the development of the Airport Master Plan is provided in Section 3 of the Master Plan.



11.3 ENVIRONMENTAL MANAGEMENT

Key Objective:

Launceston Airport will continue to develop and implement an EMS aligned with the requirements of the international standard ISO 14001:2015-Environmental Management Systems. This standard helps organisations comply with the relevant environmental legislation, minimise negative environmental impacts and provide for continuous improvement in their environmental performance.

11.3.1 OVERVIEW

The goal of Launceston Airport's Environment Policy is for the airport to be an environmental leader in the port sector (airport and maritime) throughout Tasmania.

This strategy has been developed to provide direction to Launceston Airport in achieving its Environmental Policy goal and in doing so, satisfy the relevant requirements of the Airports Act.

11.3.2 ENVIRONMENTAL LEGISLATION

Launceston Airport is situated on Commonwealth land and as such, is subject to Commonwealth environment legislation to regulate both its own business operations and those of its business partners including airlines, tenants and retail concessionaires. The principal Commonwealth Acts and Regulations relevant to the airport are:

- *Airports Act 1996* (Cth)
- *Airports (Environment Protection) Regulations 1997* (Cth)
- *Airports (Building Control) Regulations 1996* (Cth)
- *Airports Regulations 1997* (Cth)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth)
- *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth).

11.3.2.1 Airports Act 1996

The *Airports Act 1996* (Airports Act) sets up a system for regulating airports and the airport-lessee companies (ALCs) whose business is to run the airports. The ALCs are required to adhere to the requirements of the Airports Act that deal with environmental management and standards at airport sites.

11.3.2.2 Airports (Environment Protection) Regulations 1997

The Airports (Environment Protection) Regulations 1997 (AEPR) outline the general duties that must be undertaken by an airport-lessee company. Some of the activities undertaken by APAL to meet the regulations include the completion of the Annual Environment Report (AER), adoption of a comprehensive EMS, and monitoring of surface water, soil and groundwater quality.

11.3.2.3 Environment Protection and Biodiversity Conservation Act 1999 and Environment Protection and Biodiversity Conservation Regulations 2000

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and *Environment Protection and Biodiversity Conservation Regulations 2000* are the primary legislation for the protection of environmental matters on Commonwealth land. They outline the responsibilities and implications for management of significant flora, fauna species and heritage on Commonwealth airports.

11.3.2.4 Applicable State Legislation

In addition to Commonwealth requirements, Launceston Airport is required to comply with Tasmanian state legislation to the extent its activities impact surrounding Tasmanian air, land and waterways. The principle legislation is the *Environment Management and Pollution Control Act 1994*. This is applicable for receiving bodies of surface water, waste, ground-based vehicle emissions and hazardous materials.

11.3.3 DEPARTMENT OF INFRASTRUCTURE, TRANSPORT, REGIONAL DEVELOPMENT AND COMMUNICATIONS

The Commonwealth Department of Infrastructure, Transport, Regional Development and Communications (DITRDC) provides policy advice to its Minister and delivers a variety of programs on behalf of the Commonwealth Government. It is DITRDC's role to advise the government on the policy and regulatory framework for federally-owned Australian airports and the aviation industry.

The Commonwealth Government has appointed an AEO and an Airport Building Controller (ABC) to Launceston Airport. The roles of these position holders are as follows:

11.3.3.1 Airport Environment Officer

The AEO is the Authorised Officer under the Airports Act, appointed by the Secretary of DITRDC to administer the AEPR. DITRDC oversees the AEO and retains overall responsibility for the enforcement of the Airports Act and the associated Regulations.

11.3.3.2 Airport Building Controller

The role of the ABC is to administer the Airports (Building Control) Regulations 1996, ensure that the National Construction Code is adhered to and advise airport operators on building control issues.

11.3.4 ENVIRONMENTALLY SIGNIFICANT AREAS

The *Airports Act 1996*, does not define 'environmentally significant areas'. While there are a number of locations across the airport estate that are considered to have some ecological or heritage value, for the purposes of this Environment Strategy, and this Master Plan, only Building 26 (the Launceston Air Traffic Control tower) is considered to be 'environmentally significant'. This building was listed as a Commonwealth Historic Heritage Place (place ID: 106121) in 2016. The tower 'is of historical significance in a national context as a rare and representative surviving example of a post-World War II era control tower equipped to an international standard following guidelines devised by the International Civil Aviation Organization.'

Areas previously identified as 'environmentally significant' in the 2015 Master Plan are now described in their respective sections of this Environment Strategy. These include:

- The Airservices ARFFS former fire training ground pond that is the location of previous recordings of the Green and Gold Frog *(Litoria raniformus)* (Section 11.9.3)
- A small area (likely individual specimen) north-east of the main runway that is the site of the state listed Silky Bush Pea *(Pultenaea prostrata)* (Section 11.9.4)
- The northern area of the southern apron is the location of several hangars and buildings that have some historical heritage value (Section 11.12)
- The terminal gardens which are considered to have some historical heritage value as the first formally designed industrial native gardens (Section 11.12).

While the above areas are not considered 'environmentally significant' for the purposes of this Environment Strategy, or this Master Plan, APAL will have due regard for their ecological and heritage values whenever their locations will potentially be affected by building or development works.

11.3.5 LAUNCESTON AIRPORT ENVIRONMENT MANAGEMENT

11.3.5.1 Environment Policy

The Launceston Airport General Manager and the Airport Safety and Environment Committee (made up of internal management and environment staff) are responsible for annually reviewing the Environment Policy. The policy aligns with the APAL environmental philosophy and the most recent policy is dated August 2018.

All Launceston Airport employees and agents are responsible for compliance with the Environment Policy.

The policy is made available to all airport staff, tenants and the general public via the Launceston Airport website.

APAL maintains an EMS to manage environmental impacts at Launceston Airport. The Launceston Airport EMS is not independently certified but is aligned with the ISO14001:2015 standard.

The EMS consists of the following elements:

- Context of the organisation
- Leadership
- Authorities
- Planning
- Support
- Operation
- Performance evaluation.

11.3.5.2 Environmental Planning – Setting Objectives and Targets

Setting objectives and targets enables APAL to meet its Environmental Policy commitments.

The environmental objectives of Launceston Airport are linked to the environmental aspects of airport operations, the APAL Code of Environmental Practice and Environment Policy. These are supported by Operational Environmental Management Plans (OEMPs) and Construction Environmental Management Plans (CEMPs) which are prepared for operations and construction projects across the airport.

Environmental objectives and targets are contained in OEMPs and CEMPs. These objectives and targets are subject to management review at frequencies relevant to the scale and risk profile of the operation or project.

11.3.5.3 Implementation and Operation

Implementation of the EMS is the responsibility of the General Manager at Launceston Airport with implementation undertaken by the Manager Environment and Sustainability, Melbourne and Launceston, and the APAL Environment Advisor. APAL department managers and employees have clear responsibilities and reporting requirements under the EMS.

Launceston Airport engages contractors to undertake a wide range of activities and services on the airport site. It is the responsibility of the APAL departmental managers to ensure that sound environment practices are followed by such contractors. This is enforced through the APAL Code of Environmental Practice, Environment Policy, Environment Strategy contractual arrangements for services or tenancies, the contractor management system, the Aerodrome Manual, and the Launceston Airport induction procedures. These documents provide advice on the environmental requirements of the airport, policy, emergency contact numbers and location of spill equipment.

For construction projects with a potential for environmental impact, the contractor is required to prepare a CEMP that satisfies the requirements of Launceston Airport and the AEO. The CEMP is reviewed by the Environment, Health and Safety Advisor before work begins. The CEMP is the overarching document to manage environmental risk during the life of the project and refers to the environmental management aspects listed in the Environment Strategy.

There are some areas of the airport which are not operated in connection with airport operations. The environmental performance and compliance of these areas is managed via the EMS and corresponding inspections.

11.3.5.4 Environmental Management Plans

A risk-based approach has been applied to identify the operations requiring a level of environmental management or OEMPs.

Two tenants require OEMPs for their activities; these are the ExxonMobil bulk refuelling site and Airservices Australia. The OEMPs are required to be reviewed, revised annually and submitted to APAL for approval.

Tenant activities, Launceston Airport maintenance facilities and construction projects may also require EMPs to manage environmental risk from time to time; dependent on the complexity of the project and specific activities involved.

11.3.6 ENVIRONMENTAL MONITORING

Under Regulation 6.02 of the AEPR, the airport is required to monitor the levels of pollution (if any) present in the air, water or soil at the airport and the level of ground noise generated at the airport in accordance with the Environment Strategy. Environmental monitoring is a critical component of Launceston Airport's EMS to evaluate compliance, identify issues and opportunities, obtain information about environmental performance and encourage continual improvement.

The Environment Strategy reflects the framework of the AEPR and includes the monitoring and targeted audits to manage risks and inform airport decision-making. If monitoring identifies non-compliance, Launceston Airport undertakes necessary corrective actions. Where appropriate, the public display of data will demonstrate the airport's efforts to mitigate environmental impacts.

Launceston Airport continues to refine and implement its environmental monitoring program. All monitoring activities and monitoring advice is provided by a range of suitably qualified technical specialists. In addition to monitoring effects within the airport site, Launceston Airport also monitors some aspects that can affect the surrounding environment.

Monitoring programs undertaken in accordance with the Environment Strategy are listed in Table 11.2.

11.3.6.1 Environmental Site Registers

In accordance with Regulation 6.02(3) of the AEPR, APAL has developed and is maintaining an Environmental Site Register. The register comprises a number of tables that include results of water, soil and air monitoring, environmental site assessment details, Aboriginal and historic heritage sites, information on any remedial plans, and any other details on occurrences of environmental significance.

Launceston Airport has also developed an aspects impact register as part of the EMS. This involved a review of operations and tenants and included a risk assessment to determine where site-specific OEMPs were required.

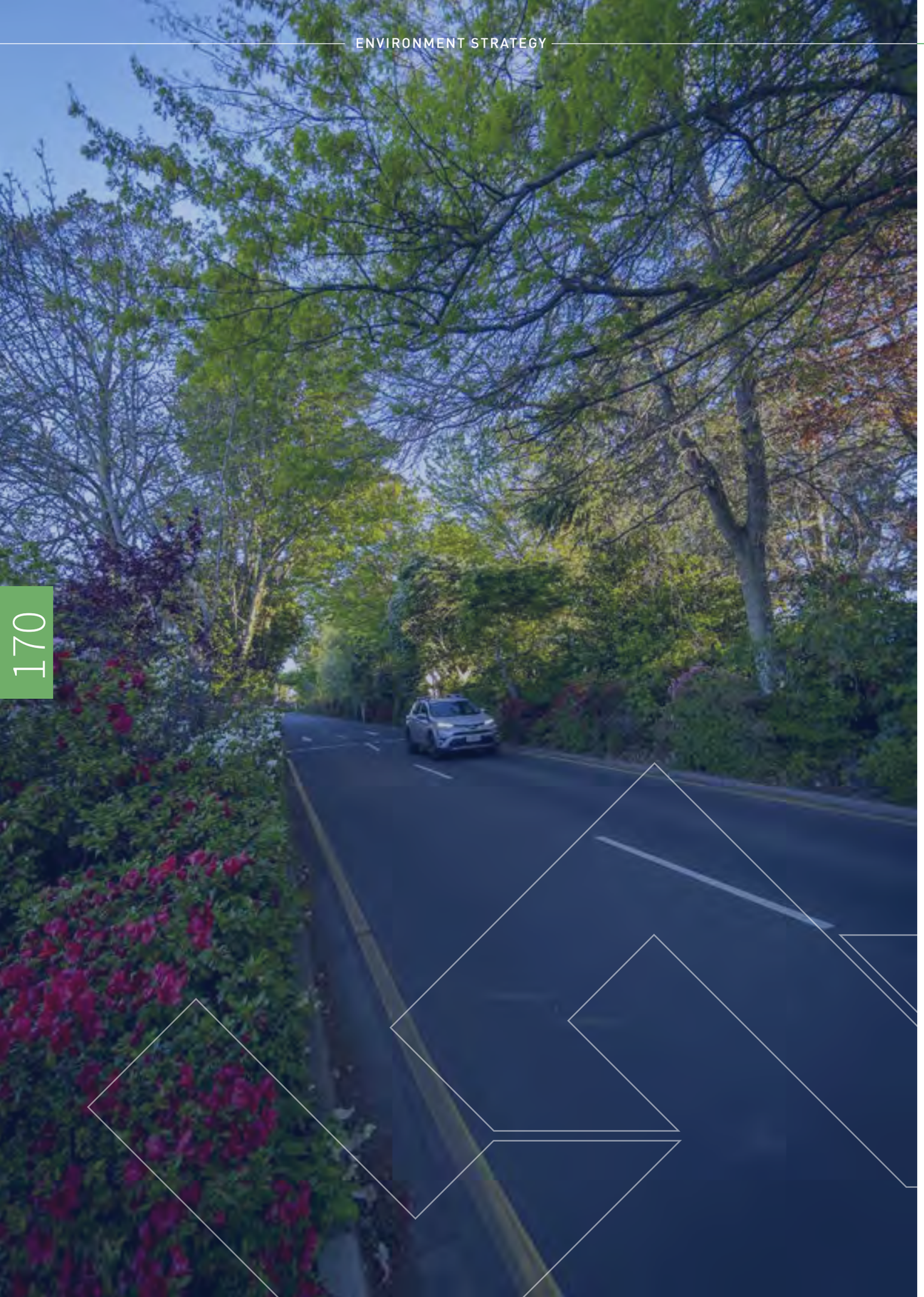


TABLE 11.2 LAUNCESTON AIRPORT'S ONGOING ENVIRONMENTAL MONITORING PROGRAM

ENVIRONMENTAL ASPECT	MONITORING TYPE	SPECIFIED FREQUENCY
Environmental management	Reporting to Safety, Security and Environment Steering Group and APAC Board	2-monthly
	Internal EMS conformance audit	Annual
Sustainability in planning and design	Qualitative review of the implementation of the sustainable development principles in new developments with a value over $10M	Following project completion
	Potable water use	Monthly
Energy and carbon	Gas use	Monthly
	Fuel use	Monthly
	Electricity use (overall)	Monthly
	Electricity use (sub-meters)	Ongoing
	Fuel use (vehicles)	Monthly
Hazardous materials	Underground storage tank (UST) integrity testing by tenants which have USTs	Annual
	Inspections of hazardous materials storage areas	Annual
Cultural and historical heritage	Site monitoring	As required
Land and water management	Soil contamination testing of major construction activities (project value over $10M)	Prior to works commencing
	Soil erosion	Monthly during CEMP inspections
	Stormwater quality	6-monthly
	Groundwater quality	Annual
Biodiversity and conservation	Airside wildlife monitoring	Daily
	Sitewide flora and fauna update survey	End 2023
Air quality and ground-based noise	Air quality	As required
	Ground-based noise	As required
Waste management	Bin room inspections	6-monthly
	APAL internal office waste audit	6-monthly

11.3.7 TRAINING, AWARENESS AND COMPETENCE

APAL promotes environmental awareness through training, staff meetings, the Airport Safety and Environment Committee, tenancy inspections, and inductions. The airport administers an effective environmental training program through environmental inductions, environmental awareness training and job-specific environmental training.

APAL employees whose work may result in a significant impact to the environment are expected to be competent in that work and to have received appropriate training. An effective environmental awareness and training program is essential for achieving good environmental performance.

APAL delivers two levels of environmental training:

1. **Environmental Induction Training** – to introduce new employees to APAL's Environment Policy, the EMS and the Environment Strategy.

2. **Environmental Awareness Training** – to update employees with developments in APAL's Environment Policy, the EMS, the Environment Strategy and key environmental management initiatives.

To support the ongoing commitment to the environment, an environmental awareness program has been developed and is presented to staff and tenants. The program covers issues such as:

- Environment and heritage awareness
- Environmental legislation
- Key environmental issues
- Biodiversity and conservation
- Contaminated land management (hydrocarbons and per- and poly-fluoroalkyl substances (PFAS))
- Environmental performance
- Emergency response
- Discharges to surface water and sewer
- Hazardous materials and storage
- Reporting requirements.

APAL's tenants and other operators are required to undertake relevant training related to the environmental risks associated with their operations. These requirements are documented within tenants'/operators' OEMPs and/or CEMPs. Compliance is verified via APAL's inspection and audit program.

Contractor managers (i.e. APAL employees who oversee work undertaken by a contractor) are responsible for obtaining assurance that contractors undertaking work at Launceston Airport are appropriately trained and competent. Contractors working at the airport must undergo an induction, which includes a section that outlines their responsibilities under the EMS.

11.3.8 AIRPORT ENVIRONMENTAL DOCUMENTATION AND COMMUNICATION

APAL has procedures in place to make sure that environmental awareness and procedural information is received and responded to by staff and tenants. Environmental progress (e.g. progress of the Environment Strategy, legislative requirements and airport environmental initiatives), emergency procedures and operational changes are made available through electronic mail-outs, and the Launceston Airport website.

11.3.9 ENVIRONMENTAL INCIDENTS AND EMERGENCY RESPONSE

Launceston Airport has a series of environment-specific contingency plans in the airport emergency response procedures for accidents and spills for both on-airport grounds and along Evandale Road. The plans are periodically updated to ensure they are relevant to the current operating procedures and/or distributed to relevant staff and tenants.

An Environmental Response Unit (ERU) consisting of a large towable trailer is fitted with oil absorbent material, booms, protective clothing and equipment to cater for spills and emergencies.

11.3.10 CHECKING AND CORRECTIVE ACTION

APAL uses a number of systems to manage and monitor performance, non-conformance and corrective action. These include:

- Internal audits to verify implementation of the EMS and EMPs
- Regular inspections to verify implementation of CEMPs during construction works
- Environmental compliance inspections of tenant operations
- Reviews that monitor the progress of the Environment Strategy action items, the effectiveness of the Environment Policy, the EMS, tenants' environmental performance and compliance with legislation
- Management review of environmental and heritage reports and actions.

11.3.11 ENVIRONMENTAL REPORTING REQUIREMENTS

11.3.11.1 Annual Environmental Reports

Under the AEPR the airport-lessee company is required to report on the environmental performance of the airport on an annual basis. The report is provided to the Secretary of DITRDC for review.

11.3.12 STRATEGY ACTIONS

The eight-year Action Plan lists the key environmental issues identified in this strategy (Table 11.4). The strategy actions provide continuity as required from the previous 2015 strategy. Key actions completed during the previous Environment Strategy can be viewed in Table 11.3 with the 2020 Strategy Actions in Table 11.4.

11.4 ENERGY MANAGEMENT AND CLIMATE CHANGE

Key Objective:

To reduce energy consumption and greenhouse gas emissions and enable APAL to progress towards carbon neutrality.

11.4.1 OVERVIEW

Launceston Airport uses a low to medium amount of energy for a site that integrates semi-industrial and transport uses.

Major sources of energy use relate to electricity and gas used for the operation of terminal building which is significantly influenced by the relative outside air temperature and numbers of passengers.

11.4.2 ENERGY USE

Similar to the last Environment Strategy, the primary energy uses at Launceston Airport remain:

- Airfield operations, including lighting
- Baggage handling systems
- Car park and street lighting
- Lighting, heating and cooling of buildings and terminals.

Other energy uses include:

- Fuel usage for APAL vehicles (diesel)
- Backup generators (diesel).

TABLE 11.3 COMPLETED ENVIRONMENTAL MANAGEMENT ACTIONS FROM THE 2015 AES

SUMMARY OF KEY ACTIONS COMPLETED FROM THE 2015 AES
Appointment of a dedicated environment resource to provide immediate assistance and advice to APAL staff, tenants and contractors on matters relating to the environment.
Development and implementation of an APAL Waste Management Plan.
The firefighting and domestic water mains were separated.
Separation of circulation of the Environment Strategy to all staff and tenants, and to all those people and agencies involved in the consultation program.
Update of progress of the Environment Strategy and advised tenants and staff of performance.
Annual review of the strategy against the performance indicators with the AEO.
Provided Environmental training for staff, which included: • Environment and heritage awareness • Environmental legislation • Key environmental issues • Discharge to surface water and sewer • Hazardous materials and storage • Reporting requirements.
Reported the results of environmental testing regimes and unusual events to the AEO.
Held Airport Safety and Environment Committee meetings.
Monitored water quality of the inflow and outflow drains on the airport and cooperated on water quality objectives with regulatory authorities.
Completed a flora and fauna assessment in early 2019 to verify compliance with the EPBC Act and State Department of Primary Industries, Parks, Water and Environment's Threatened Species List.
Assessed all fill materials before acceptance onto Launceston Airport land with the requirement to provide 'clean fill' certificates.
Formation of and participation in the PFAS Round Table meetings, with Airservices and applicable regulators.

TABLE 11.4 STRATEGY ACTION PLAN 2020

2020 ACTION NUMBER	PROPOSED ACTIVITY	TIME FRAME
1	Continue to maintain EMS in alignment with ISO14001:2015.	Ongoing
2	Undertake an internal audit of the EMS to drive continuous improvement.	Annual
3	Ensure copies of Environment Strategy are available to employees, tenants, contractors and other stakeholders, via the APAL website.	2020 onwards
4	Prepare an Annual Environment Report.	Annual
5	Undertake annual environmental awareness training for APAL employees that includes: • incident reporting and spill response procedure • hazardous material storage and handling • waste management • biodiversity and heritage • pest plants and animals • wildlife management • dust and noise management • erosion and sediment control • progress reports on performance.	Annual
6	Conduct quarterly Airport Safety and Environment Committee Meetings.	Quarterly
7	Undertake annual inspections of tenants to ensure their environmental compliance with the AEPR.	Annual
8	Develop an APAL Environment Management Plan that documents APAL's minimum environmental management requirements.	2020

11.4.3 ENERGY MANAGEMENT

Despite an increase in passenger and business activity at Launceston Airport, greenhouse gas (GHG) emissions have declined 5.4 per cent (in absolute numbers) over the period 2013/14 to 2017/18 (Graph 11.1). The kgCO2 equivalent per passenger has reduced by 15 per cent over the same period.

The reduction would have been greater were it not for several factors contributing to a 25 per cent increase in APAL attributable carbon emissions in 2017/2018, including:

- The majority of the Qantas portion of LPG consumption has transferred to APAL due to terminal lease changes
- The terminal expansion and reconfiguration project have led to higher consumption of space heating
- The electricity grid factor for Tasmania increased by 60 per cent during the 2017/2018 reporting period. The grid factor is the default emissions factor for purchased electricity as per the National Greenhouse and Energy Reporting (NGER) Scheme method. For Tasmania, the grid factor varies each year depending on how much power Tasmania imports from the mainland.

In the previous Environment Strategy period APAL has undertaken numerous built environment and operational initiatives to reduce energy use and increase energy efficiency. This includes measures such as:

- Installation of upgraded automated window shades in the main terminal
- LED lighting replacement across the airport precinct, including but not limited to:
  - Departure lounges, toilets and corridors
  - Car parks
  - All gate areas
  - The RPT apron, Sharp apron and freight aprons
  - Main terminal central core, emergency lighting system, Movement Area Guidance signs.

APAL will continue to review its major sources of energy use and undertake relevant initiatives to reduce this where possible. Initiatives under consideration include a potential solar field project and more LED replacements, particularly the approach lights and taxiway lighting.

11.4.4 OFFSETTING EMISSIONS

Every year, APAL offsets its carbon emissions associated with its vehicles and staff flights through the purchase of carbon offsets. Where possible, these offsets are purchased from local (Tasmanian) accredited offset programs.

11.4.5 REPORTING EMISSIONS

Although Launceston Airport's carbon footprint is less than the *National Greenhouse and Energy Reporting Act 2007* (NGER Act) reporting threshold, it is included as part of the APAC collective corporation performance, as per legislative requirements.

11.4.6 CLIMATE CHANGE

As well as managing the airport's current contribution to climate change, APAL acknowledges that it must adapt to current and future climate change risks, vulnerabilities and likely impacts.

APAL is committed to working toward a better understanding of climatic events that may potentially impact airport asset management and operations. Energy management and climate actions completed during the previous Environment Strategy can be viewed in Table 11.5 with the 2020 Strategy Actions in Table 11.6.

GRAPH 11.1 APAL SCOPE 1&2 GHG EMISSIONS PER YEAR

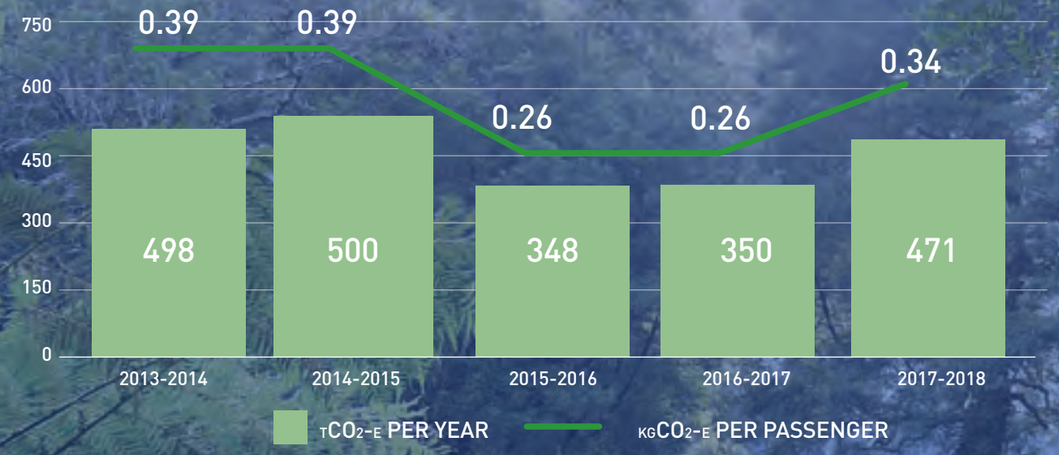


TABLE 11.5 COMPLETED ENERGY MANAGEMENT AND CLIMATE ACTIONS FROM THE 2015 AES

ACHIEVEMENTS IN THE PREVIOUS FIVE YEARS SINCE 2015
Reporting under the NGER Scheme.
The airport lighting upgrade incorporated LED fittings, timers and movement activated lighting.

TABLE 11.6 STRATEGY ACTION PLAN 2020

2020 ACTION NUMBER	PROPOSED ACTIVITY	TIME FRAME
9	Identify main sources of energy use and investigate measures to reduce consumption.	Ongoing
10	Collaborate with Launceston Airport business partners and tenants to identify energy-saving measures.	Annual
11	Explore the use of alternative fuels for airside equipment, including vehicles and auxiliary power units, in consultation with internal and external stakeholders.	Ongoing
12	Develop and implement energy efficiency strategies using information provided from the airport energy use assessment. Adopt actions where potential opportunities are identified.	As required
13	Complete annual NGER and the National Pollutant Inventory (NPI) assessments and reporting.	Annual

11.5 WATER CONSUMPTION MANAGEMENT

Key Objective:

Launceston Airport will continue to develop strategies to reduce and manage potable water consumption.

11.5.1 OVERVIEW

Launceston Airport seeks to be a responsible water user by managing its water resource sensibly and efficiently. While the region is not affected to the extent of other states by water shortage, there is a social responsibility to reduce water use.

11.5.2 MAJOR USES OF POTABLE WATER

The major uses of potable water on Launceston Airport include:

By APAL:

- Garden watering
- Bathrooms
- Cleaning and hygiene
- Kitchen facilities
- Construction and maintenance.

By tenants:

- Car rentals and washing
- Fire training activities.

11.5.3 WATER MANAGEMENT

Because the terminal gardens contain exotic species (azaleas, rhododendrons, etc.) they require watering through the summer months. A water timing system provides greater control of watering times and enables a small reduction in water usage. Watering timing has been changed to night-time only, to reduce evaporation rates.

The potential for rainwater harvesting to water the gardens has been considered but is extremely difficult due to layout constraints.

The potential for rainwater tanks is being investigated at the light vehicle car wash station, in the compound area. This rainwater tank would allow the capture of 100kL of rainwater annually to supplement 500L per day of water used in the car wash. Water management actions completed during the previous Environment Strategy can be viewed in Table 11.7 with the 2020 Strategy Actions in Table 11.8.

TABLE 11.7 COMPLETED WATER MANAGEMENT ACTIONS FROM THE 2015 AES

ACHIEVEMENTS IN THE PREVIOUS FIVE YEARS SINCE 2015
Continued to monitor and implement water conservation measures.
The firefighting and domestic water mains were separated.
A main terminal water mains upgrade was executed.
Watering of the terminal gardens changed to night-time only timers.

TABLE 11.8 STRATEGY ACTION PLAN 2020

2020 ACTION NUMBER	PROPOSED ACTIVITY	TIME FRAME
14	Continue to investigate ways to minimise potable water consumption in collaboration with Launceston Airport business partners and tenants.	Ongoing

11.6 WATER QUALITY – SURFACE WATER

Key Objective:

To identify and implement opportunities identified to improve water quality both upstream and downstream of Launceston Airport.

11.6.1 OVERVIEW

Waterways are an integral part of the natural environment. APAL aims to minimise the impact on both surface and groundwater by ensuring all reasonable and practical measures are undertaken during operations and development activities.

The majority of surface water leaves the airport into Kellys Creek and ultimately to the North Esk River, via Rose Rivulet. Both the inflows and outfall are regularly monitored and water quality tested. There is also a flow off-site from the south-east of the airport, which discharges into Springvale Creek.

Launceston Airport (along with the off-site Translink development to the west of the airport) forms the headwaters of Kellys Creek. Operations at the airport therefore have the potential to impact on the water quality flowing through the system.

APAL ensures that staff, contractors and tenants working at the airport are aware of their responsibility to alleviate the risks to surface water quality arising from their activities through contractual arrangements, environmental awareness training, OEMPs, CEMPs, environmental inspections and environmental incident response.

11.6.2 SURFACE WATER SYSTEM

Launceston Airport has two main outfalls that form the headwaters for Kellys Creek and to a lesser extent Springvale Creek. Both headwaters are usually dry over summer.

The Kellys Creek outfall receives approximately 90 per cent of the airport's surface water run-off while Springvale Creek receives the balance via the southern runway outlet and a number of small drains exiting the property from the grass strips to the north-east of the main runway. Both receive run-off from the catchment area rising to Devon Hills.

Stormwater run-off at Launceston Airport is managed through an extensive drainage network that includes vegetated swales, drainage pits, subsurface pipes and open drains. Site management practices such as effective spill response, construction site audits, erosion and sediment control, street sweeping and stormwater pit maintenance are implemented to minimise potential contaminants leaving the airport site.

Run-off from the Translink light industrial estate (not associated with the airport) flows through the airport via two main drains to combine at a single culvert on-airport before flowing beneath the runway system to exit to Kellys Creek. Figure 11.2 illustrates the airport surface water drainage layout.

Surface water pollutants are primarily associated with certain firefighting foams previously used at the airport (PFAS), heavy metals from aircraft operations, the road network, and fuel storage and use. APAL's surface water monitoring program found that levels of some contaminants were above adopted guidelines at a number of locations across the site. No unacceptable human health risks have been found on-airport and APAL continues to monitor water quality at and surrounding the airport to inform future management.

11.6.3 SURFACE WATER MONITORING

Regular monitoring of surface water inflows and the single outflow to Kellys Creek began in 1997.

Appropriately qualified professionals, trained in collection of samples, undertake monitoring of surface water. These are forwarded to a NATA accredited laboratory for analysis.

As the Translink development has grown, the potential impact on surface water quality has increased and is evident in recent testing of stormwater flowing into the airport. An increase in levels of oils and greases in surface water samples plus water-borne litter and turbidity has been noted.

To minimise the impact both on-airport and at the main Kellys Creek discharge point, APAL has installed a litter trap at one of the main drains inflowing the airport.

Figure 11.2 shows the location of the existing surface water quality monitoring sites and litter traps.

A dedicated covered vehicle wash down bay has been installed in the APAL maintenance compound. This facility has a triple interceptor to treat the waste water to remove oils, greases and surfactants and discharges to sewer.

11.6.4 KEY LEGISLATION

An airport must monitor the quality of surface water discharged at the airport, as stipulated in Regulation 6.02 of the AEPR, APAL continues to monitor the inflows and outflows. The Tasmanian EPA is the statutory regulator for the receiving waters, where Launceston Airport surface water is discharged.

Surface water quality actions completed during the previous Environment Strategy can be viewed in Table 11.9 with the 2020 Strategy Actions in Table 11.10.

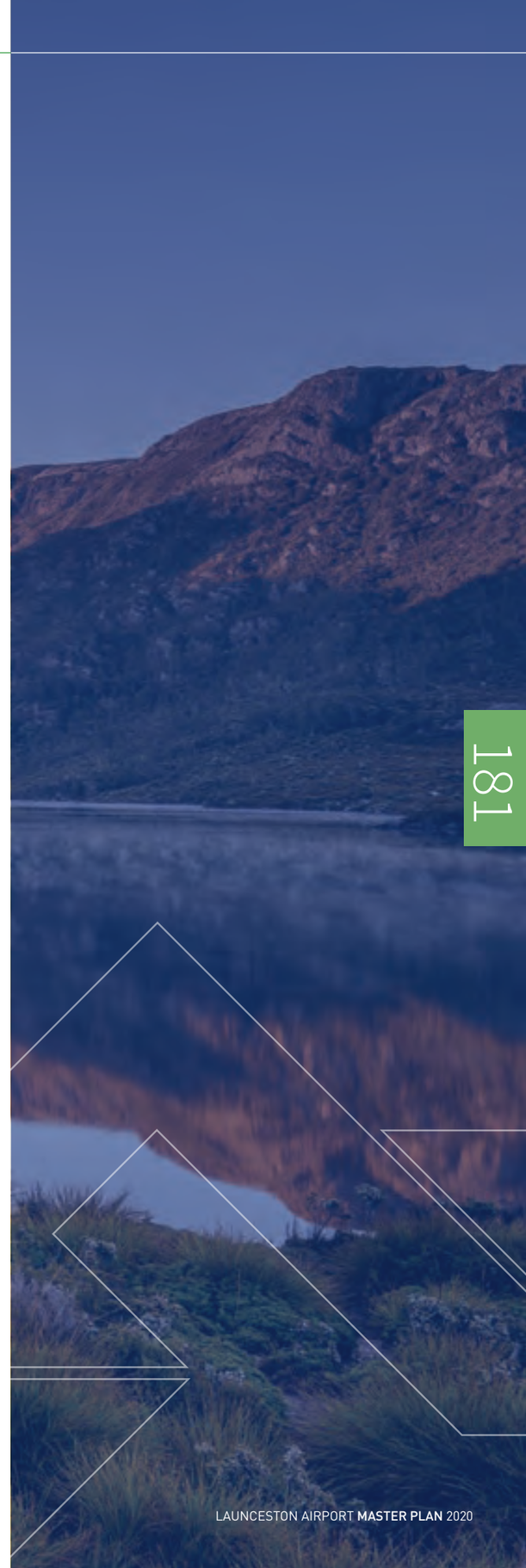


FIGURE 11.2
DRAINAGE & WATER MONITORING LOCATIONS

TABLE 11.9 COMPLETED SURFACE WATER QUALITY ACTIONS FROM THE 2015 AES

ACHIEVEMENTS IN THE PREVIOUS FIVE YEARS SINCE 2015
Completed site-wide investigation to identify sources and pathways for pollutants, including surface water sampling of PFAS.
Continued to monitor water quality of the inflow and outflow drains on the airport.
Cooperated with regulatory authorities on water quality objectives including the AEO and EPA Tasmania.

TABLE 11.10 STRATEGY ACTION PLAN 2020

2020 ACTION NUMBER	PROPOSED ACTIVITY	TIME FRAME
15	Continue to monitor surface water and cooperate with regulatory authorities in achieving water quality objectives.	6-monthly
16	Continue to upgrade and maintain the drainage system as necessary using a water-sensitive urban design, treatment train approach wherever possible.	Project-based
17	Ensure all CEMPs on projects identify environmental risks to water quality and the appropriate mitigation measures are in place to prevent/minimise environmental harm.	Ongoing

11.7 WATER QUALITY – GROUNDWATER

Key Objective:

To protect and monitor groundwater quality at Launceston Airport.

11.7.1 OVERVIEW

Launceston Airport has groundwater, subject to location, ranging from 2m to 12m below ground surface. The groundwater flow is predominantly to the north-east with a low seepage velocity. The nearest licensed water bore is located 2.4 kilometres to the north-west of the airport.

11.7.2 POTENTIAL SOURCES OF IMPACT UPON GROUNDWATER

The potential activities that could impact upon groundwater include:

- Aircraft and vehicle maintenance, fuel storage and fuelling activities (including those undertaken at hangars and ancillary workshops)
- Fuel storage and other sources of petroleum hydrocarbons
- Construction and refurbishment-related works
- Existing solid waste disposal areas and areas with interim containment of impacted soils
- Surrounding land-uses (industrial areas, agricultural uses).

Launceston Airport has two sites (commercial fuel areas) with underground storage tanks (USTs), neither of which are operated by APAL. There are four active above-ground storage tanks (ASTs) on-site associated with MobilExxon (1) and APAL (3), containing Avgas and diesel respectively.

APAL has a management procedure that requires all USTs to be monitored and regularly tested by the respective owners (ExxonMobil and Air BP) for leakage, as prescribed within their operations procedures and verified during annual APAL environmental inspections. A register of all existing and decommissioned tanks on-site is maintained.

To mitigate potential impacts on groundwater, Launceston Airport undertakes the following measures:

- Review of tenants' OEMPs to assess whether appropriate emergency response (including spill response) and management measures are in place
- Regular inspections and operational audits of active areas to verify existing management measures that are in place to mitigate potential risks
- Compulsory spill response training to relevant personnel
- Maintenance of existing infrastructure to minimise spills and uncontrolled discharges that could reach groundwater
- Ongoing monitoring of areas that are known to have contaminated groundwater
- Ongoing development and implementation of CEMPs that include measures to prevent groundwater contamination during construction projects
- Communication of existing groundwater information and identified sources of contamination to business operators and future operators.

11.7.3 MONITORING OF GROUNDWATER

Monitoring and managing groundwater is a key focus of Launceston Airport due to the long-term use of the site and historical use of firefighting foam chemicals (PFAS), oils and fuels. There are approximately 40 groundwater bores at the airport to monitor groundwater quality. APAL maintains and monitors 16 of these groundwater bores on an annual basis. Monitoring is also regularly conducted by tenants at high-risk sites where current or historical activities have led to groundwater contamination. Groundwater pollutants are primarily associated with PFAS, some metals, and hydrocarbons.

Groundwater management actions completed during the previous Environment Strategy can be viewed in Table 11.11 with the 2020 Strategy Actions in Table 11.12.

11.8 WASTE MANAGEMENT

Key Objective:

To reduce waste disposed to landfill from FY18 levels and optimise recycling at APAL-operated facilities.

11.8.1 OVERVIEW

Waste is generated by both Launceston Airport and the operators on the precinct, including tenants, airlines, retailers, ground handlers, maintenance, engineering, construction and development.

11.8.2 WASTE MANAGEMENT

All operators on-airport are responsible for the correct storage, handling and disposal of their waste.

The waste types produced at Launceston Airport include quarantine waste, controlled waste (liquid and solid), foreign object debris, organic waste (food and vegetation), paper, cardboard, and food and beverage containers. Ad hoc waste types include scrap metal, construction and demolition waste, concrete and asphalt, electronics and computers, furniture, and office fittings.

APAL has implemented a recycling program to divert waste from landfill. The major contributors to this waste are retail concessionaires and the public using the terminal facilities.

APAL developed a Waste Management Plan in 2018 and its implementation is ongoing in collaboration with all airport users. Waste generated during FY19 is shown in Graph 11.2.

Due to the operations required at an airport, there are a number of potential waste-related issues:

- Inconsistent solid waste disposal by Launceston Airport operators, contractors and tenants
- Inappropriate storage of waste oils, chemicals and other hazardous waste materials
- Limited options and regulatory restrictions for the recycling and reuse of certain waste streams
- Waste water run-off from airport operations such as aircraft and vehicle wash down
- Generation of waste in an environment where many products must be used once then disposed of.

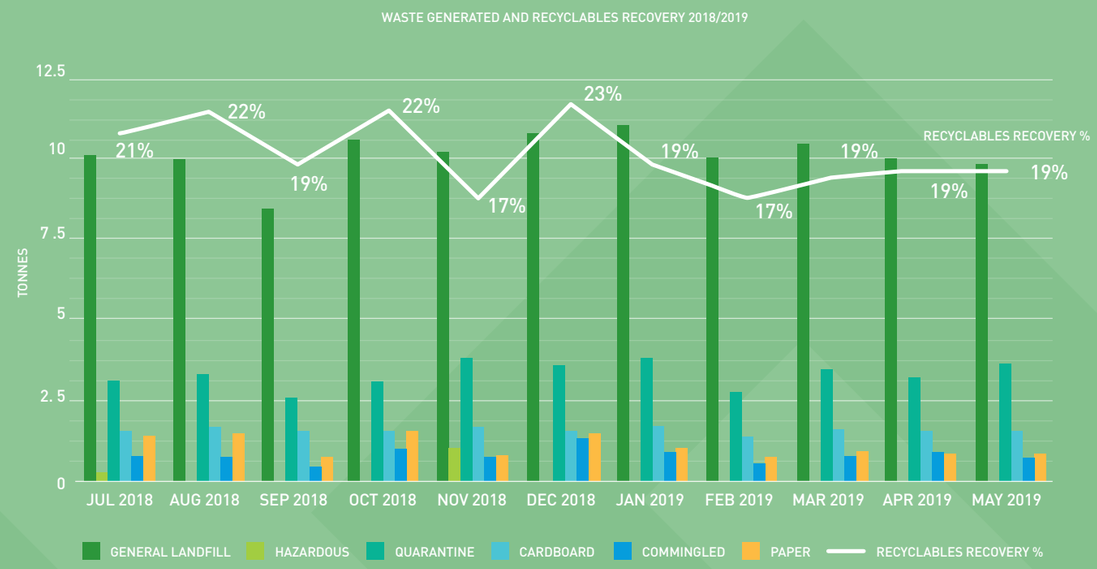
TABLE 11.11 COMPLETED GROUNDWATER QUALITY ACTIONS FROM THE 2015 AES

ACHIEVEMENTS IN THE PREVIOUS FIVE YEARS SINCE 2015
Installation of 16 new groundwater monitoring bores to improve monitoring of site contaminants.
Annual groundwater monitoring has occurred at sites of known contamination.
Maintenance of the site register of groundwater monitoring bores.

TABLE 11.12 STRATEGY ACTION PLAN 2020

2020 ACTION NUMBER	PROPOSED ACTIVITY	TIME FRAME
18	Continue to complete annual groundwater monitoring; maintain and update the site register of groundwater bore locations.	Annual

GRAPH 11.2 APAL WASTE MANAGEMENT ACTIONS FROM THE 2015 AES



Launceston Airport's Waste Management Plan documents the airport's commitment to reducing the quantity of waste generated. The plan covers all airport operations and applies to all individuals, employees and contractors conducting business activities at the airport.

There are limited on-site options for the management and treatment of most waste streams. Construction waste is recycled where possible, as is waste (non-weed) vegetation used as mulch across site. For projects on a large scale, concrete is crushed and reused on site as fill material or road base for gravel road upgrades.

Quarantine Risk Material is waste material (primarily food) discharged from interstate aircraft. It is transported by a registered operator to Remount Road landfill, operated by Launceston City Council.

Waste management actions completed during the previous Environment Strategy can be viewed in Table 11.13 with the 2020 Strategy Actions in Table 11.14.

11.9 BIODIVERSITY AND CONSERVATION MANAGEMENT

Key Objective:

To conserve and actively manage biodiversity values at Launceston Airport.

Launceston Airport supports a flora species listed as vulnerable under the Tasmanian legislation Threatened Species Protection Act 1995 - the Silky Bush Pea (Pultenaea prostrata).

Recent surveys have not recorded the previously identified Green and Gold Frog (Litoria raniformus – a listed threatened species under state and commonwealth legislation). It is no longer considered to be present on the airport.

Ongoing management is required to conserve and protect listed species and minimise the impact of invasive species.

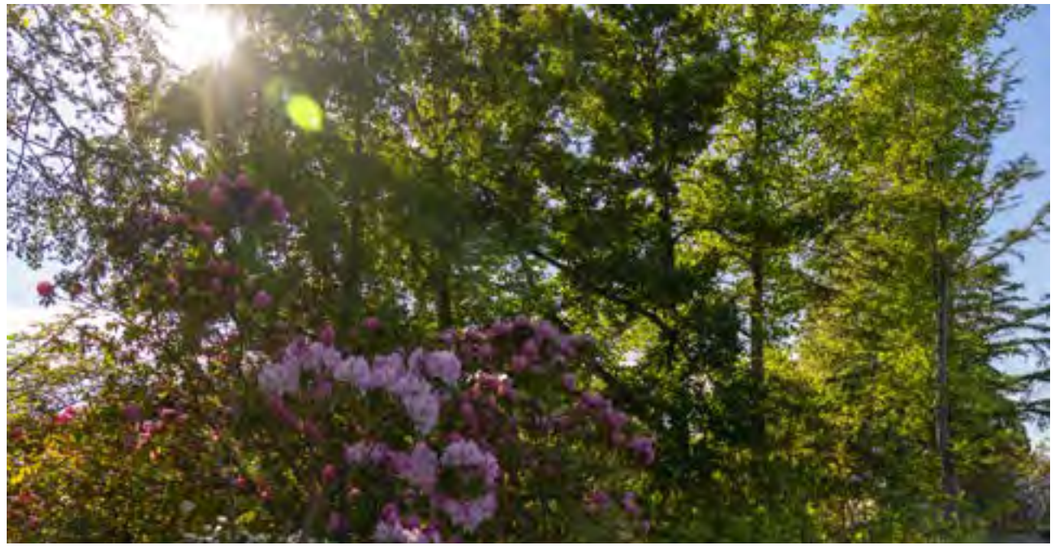


TABLE 11.13 COMPLETED WASTE MANAGEMENT ACTIONS FROM THE 2015 AES

ACHIEVEMENTS IN THE PREVIOUS FIVE YEARS SINCE 2015
Developed a Waste Management Plan to inform and drive future waste reduction initiatives.
Contractual obligations implemented for construction contractors to recycle construction waste.

TABLE 11.14 STRATEGY ACTION PLAN 2020

2020 ACTION NUMBER	PROPOSED ACTIVITY	TIME FRAME
19	Continue the implementation of the Launceston Airport Waste Management Plan to inform future waste reduction initiatives and manage all airport and construction wastes.	Quarterly
20	Implement behavioural awareness campaign for tenants and employees with regard to managing waste correctly.	Annual
21	Conduct regular tenant and APAL office inspections to ensure appropriate waste management systems are in place. In addition, check for bin contamination and provide feedback on how to improve segregation.	6-monthly

11.9.1 OVERVIEW

Maintaining biodiversity is as one of the key environmental issues for Australia. Accounting for ecological factors involves managing Indigenous species, introduced species and the pests that can threaten the ecosystems and can cause harm to people and property.

Launceston Airport is subject to a range of existing and potential biodiversity threats. These include:

- Development and changes to surrounding land-use
- Weeds, pest animal invasion and grazing (rabbits, macropods, hares)
- Stormwater and drainage run-off and water quality impacts
- Climate change
- Bushfire and wildfire.

The interconnected nature of the ecological values at Launceston Airport require an integrated management approach.

The key biodiversity and conservation management activities at Launceston Airport are:

- Management of sensitive flora and fauna
- Pest and weed management.

11.9.2 THREATENED SPECIES AND VEGETATION COMMUNITIES

In December 2013, APAL had flora and fauna surveys undertaken by external consultants. The report confirmed the presence of The Green and Gold Frog (Litoria raniformus), a listed species under state and commonwealth legislation and the Silky Bush Pea (Pultenaea prostrata), listed as vulnerable under the Tasmanian Threatened Species Protection Act 1995.

In February 2019 another flora and fauna survey was performed. No additional flora or fauna species listed as rare or threatened under either federal or state legislation were recorded in the study area, Green and Gold Frog was not recorded.

11.9.3 GREEN AND GOLD FROG (LITORIA RANIFORMUS)

The Green and Gold Frog (GGF) was sighted during an upgrade of the Airservices Australia fire drill ground in 1999 (Figure 11.1). There had been no additional sightings until March 2009 when up to 20 were found in grassed areas around a detention pond. All were juveniles ranging from fingernail size to almost fully grown (approximately 60-70mm).

Fire training at the training ground (FFTG) ceased in early 2014. Accordingly no training water has been replenishing the pond. Since then there have been few sightings of frogs in the annual surveys (four individuals in 2015; one in 2018; and none in 2016/2017 or 2019). The conclusion from the 2019 survey is that the FFTG pond is unlikely to represent suitable breeding habitat for GGF or other frog species due to the lack of water. However, it does provide transitory habitat for frogs. As the firefighting training no longer occurs at the site and run-off in the area has been diverted the limited pond recharge is through rainfall events only (GHD, March 2019).

11.9.4 SILKY BUSH PEA (PULTENAEA PROSTRATA)

The Silky Bush Pea (Pultenaea prostrata) was first located in 1995 adjacent to the main runway strip on airside (Figure 11.1). The plant has since grown to cover an area of approximately 12m^2. In the last few years the centre has become sparse with the majority of growth at the tips or outer edge. The plant perimeter is marked by high visibility guide posts to protect against grass mowing activities and inadvertent disturbance. The presence of the Silky Bush Pea was re-verified during the 2019 flora and fauna survey.

11.9.5 VEGETATION MANAGEMENT

Launceston Airport has a weed management strategy to contain the State Declared Weeds and Weeds of National Significance (WONS) which occur on the airport. These weeds are gorse, blackberry, montpellier broom, slender thistle and fennel. None of these species are identified for eradication in the Northern Midlands.

The plants inhabit areas of airside around the flight strips. The majority are carried in as seeds by birds and other fauna from neighbouring properties.

There has been a program of gorse eradication underway for over 15 years, with great success, leading to very few sightings of gorse plants in recent years. If sighted on-airport, the plants are sprayed with herbicide to control their spread. Blackberries are routinely sprayed during the summer months, however, the introduction of the 'long grass policy' with regard to mowing of the grassed areas (for bird control) has meant that blackberry numbers have increased across the estate over the past four years. Weed locations have been mapped in the latest (2019) flora and fauna survey.

In early FY20, a DPIPWE officer identified flax leaf broom (a listed weed) in the LST gardens. This has since been removed. The grassed areas of airside are mown regularly to control grass height as required by CASA regulations. The length of grass in the flight strips is varied to help control bird species and reduce aircraft bird strike. The landside areas are generally turf and the landscaped gardens surrounding the terminal area consist of native and exotic species.

Native plants have been replaced as they die or are removed to improve public safely and maintain the garden. Launceston Airport utilises a specialist arborist to provide advice on the extent of tree maintenance required.

11.9.6 WILDLIFE MANAGEMENT

Launceston Airport actively discourages fauna from the flight strips to discourage bird strike and animals entering the aircraft movement areas. This is undertaken by the Operations Officers, utilising a combination of physical deterrence (approaching fauna in vehicles) and such measures as gas guns and, at times, poisoned baits.

The list of animals found in movement areas from time to time includes rufous wallabies, white-footed dunnarts, platypuses, snakes, rabbits, wombats, echidnas, feral cats, rats and mice. These example species are drawn from the APAL staff sightings; primarily Operations Officers. The species which pose a threat to aircraft safety are herded or caught and appropriately destroyed, as required by law.

Launceston Airport maintains a wildlife hazard management plan as part of CASA requirements to reduce the chance of aircraft wildlife strike. Launceston Airport's annual wildlife strike rate has reduced to (currently) 3.4 strikes per 10,000 aircraft movements. The masked lapwing presence on the airport has almost disappeared due to the adoption of a long grass policy. Other birds which have sightings recorded on the airport are:

- Richard's pipit
- Forest ravens
- European goldfinches
- Banded lapwings
- Common starlings
- Common skylarks
- Raptors
- Ducks
- Swallows
- Wrens
- Magpies
- Sparrows
- Black swans.

All of these birds have been recorded in the strike statistics in past years.

An external consultant ornithologist undertakes seasonal surveys of wildlife hazards and conducts an annual review of the Wildlife Hazard Management Plan providing recommendations on controlling risk species and the methods of deterrent. The decision to adopt a particular control strategy, whether habitat modification, attractant source removal or more direct eradication strategies, is made by Launceston Airport after consideration of the reports and advice provided by the ornithologist. Strategies adopted may be time-specific (seasonal) or in response to recent incidents or hazard identification through routine wildlife monitoring and surveys. Methods employed in the past have included:

- Harassment by vehicles
- Placement of orchard gas cannon
- Cracker shells
- Broadcasting equipment issuing bird distress calls
- Mowing grassed areas to varying lengths
- Removing water sources (ponds) from airport grounds
- Culling as an action of last resort.

Note: Launceston Airport has permits issued by the Department of Primary Industries, Parks, Water and Environment to harass or destroy particular native species.

Biodiversity and conservation management actions completed during the previous Environment Strategy can be viewed in Table 11.15 with the 2020 Strategy Actions in Table 11.16.

11.10 LAND MANAGEMENT

Key Objective:

Undertake reasonable and practical measures to ensure land and any existing contamination is managed appropriately, ensure that new contamination does not occur.

11.10.1 OVERVIEW

Land management in this context refers to contaminated land management and protection of any significant geological sites within the airport site.

11.10.2 LOCAL GEOLOGY AND HYDROGEOLOGY

The geological landforms of Launceston Airport are described as a thin layer of clay loam top soil of varying thicknesses overlaying very stiff clay; grey to yellow brown and riddled with small stones. This overlies decomposed basalt that varies to rock at depth.

The soil is known to contain elevated levels of manganese, zinc, chromium and lead. In the north-east corner adjacent to the grass runways, a bank of residual soil containing quartzose and basalt pieces similar to river wash gravel is located. Similar banks are located on nearby properties either side of the airport.

The site and surrounding land is highly modified rural land and has been used for farming since the mid-1800s. There is no known significant geology on-site.

APAL has a responsibility to ensure geological and hydrogeological features within the grounds of Launceston Airport are not polluted.

All construction and demolition projects are assessed for their impact on soil and surrounding surface water.

Airport activities that may impact land include:

- Airservices Australia fire training activities
- Car parking and potential run-off from hardstand areas
- Storage, handling, use and disposal of fuels, oils, chemicals and hazardous substances
- Inappropriate disposal of waste generated from activities and construction projects
- Demolition and construction works
- Importation of fill
- Disturbance of contaminated land from excavation activities
- Aircraft maintenance and washing aircraft and maintenance refuelling
- Landscaping and vegetation removal that may cause erosion
- Underground storage tanks and above-ground storage tanks
- Vehicle maintenance and washing.

Based on legacy and current site uses, contaminants of potential concern include PFAS from the legacy use of AFFF, petroleum hydrocarbons and diesel associated with fuel storage and spills, and metals associated with onsite maintenance and operations.

TABLE 11.15 COMPLETED BIODIVERSITY AND CONSERVATION ACTIONS FROM THE 2015 AES

ACHIEVEMENTS IN THE PREVIOUS FIVE YEARS SINCE 2015
Completed fauna and flora survey by independent consultants.
Airservices Australia has conducted annual Green and Gold Frog surveys.
Continued to engage an ornithologist to conduct seasonal surveys and an annual review of wildlife hazards.
Management practices have significantly reduced the presence of the masked lapwing on the airport.
Established a Wildlife Hazard Committee which meets bi-annually.
Sown insect and bird repellent entophytic grass around key areas of the precinct, including runway flanks.

TABLE 11.16 STRATEGY ACTION PLAN 2020

2020 ACTION NUMBER	PROPOSED ACTIVITY	TIME FRAME
22	Continue to monitor and responsibly manage/control pest species and weeds on-site using a risk-based approach.	Ongoing
23	Complete wildlife hazard assessments undertaken by a recognised ornithologist to inform the Wildlife Hazard Management Plan.	Ongoing
24	Maintain a committee to address wildlife management.	6-monthly

11.10.3 DEVELOPMENTS AND THEIR IMPACTS

Construction activities have the potential to impact on soil quality at Launceston Airport. The AEPR require expert examination of contaminated sites if there is a possibility of adverse impacts. With this in mind APAL has several control measures in place to ensure soil and groundwater pollution and erosion is managed and minimised. These measures include:

- Construction site controls (e.g. erosion and sediment control)
- Fuel storage and handling procedures
- Surface water quality controls (e.g. litter traps, drainage, spill response)
- Spillage management and management of contaminated sites (e.g. stockpiling contaminated soils, spill response plans/equipment).

11.10.4 AIRSERVICES AUSTRALIA FIRE DRILL GROUND

The Airservices ARFFS unit formerly used a training ground on the north-east boundary of the airport. The site had been active as a training ground since the 1950s but ceased being used as a training ground in 2014.

The site was expanded in 1999/2000 to improve environmental performance and cater for larger vehicles. Some remediation was undertaken to remove high levels of hydrocarbon contaminated soil remaining from accelerants in training exercises.

During 2008 a consultant for Airservices Australia undertook a sampling program using competent personnel and NATA accredited laboratories for sample analysis which confirmed the presence of perfluorooctane sulfonate (PFOS) and perfluorooctane acid (PFOA) in the soil surrounding the training pad. PFOS and PFOA were ingredients historically used in the manufacture of aqueous film forming foam (AFFF). The chemical has been found to be persistent in the environment. The AFFF was changed in 2010 to a different product that does not contain PFOS or PFOA (Solberg RF6).

Airservices Australia is evaluating a range of management and/or remediation techniques for the site. A Preliminary Site Investigation was performed by Airservices in 2018 and a Detailed Site Investigation is planned to commence in 2020.

APAL continues to consult with Airservices on the management of their sites and the extent of contamination. In November 2018, a PFAS Round Table was formed with representatives from APAL, Airservices Australia, the Tasmanian EPA and DITRDC. The purpose of this forum is to prepare for and review works in response to PFAS at the airport.

Land management actions completed during the previous Environment Strategy can be viewed in Table 11.17 with the 2020 Strategy Actions in Table 11.18.

TABLE 11.17 COMPLETED LAND MANAGEMENT ACTIONS FROM THE 2015 AES

ACHIEVEMENTS IN THE PREVIOUS FIVE YEARS SINCE 2015
APAL completed a Detailed Site Investigation to identify areas of PFAS contamination on-airport.
Ensured that all fill material brought onto site was verified as free from contamination.
Required that tenants with sites of existing contamination monitored and managed their sites appropriately.
Regular inspections of construction sites and material stockpiles were undertaken to ensure that erosion and sediment control measures were being employed.

TABLE 11.18 STRATEGY ACTION PLAN 2020

2020 ACTION NUMBER	PROPOSED ACTIVITY	TIME FRAME
25	Ensure all contaminated sites at the airport are monitored and managed by the relevant tenant in line with their OEMPs.	Annual
26	Maintain a contaminated land register that identifies contaminants of concern and priority sites.	Annual
27	Implement the PFAS National Environmental Management Plan, or any other such documents that may supersede this in time.	Ongoing

11.11
AIR QUALITY

Key Objective:

To meet both Commonwealth and state air quality standards.

11.11.1
OVERVIEW

Good ambient air quality is critical for maintaining community and ecological health. Launceston Airport is situated in the Tamar Valley in a largely rural aspect with a small light industrial subdivision adjacent to the airport. Ambient air quality in the Tamar Valley is impacted by particle emissions from domestic heating. The townships of Perth and Evandale are situated within five kilometres of the airport.

Emission sources on-airport include:

- LPG (boiler and cooking)
- Power generation facility emissions related to operations and maintenance, other than those specifically for flying aircraft (e.g. from boilers, emergency generators and air conditioners)
- Ground support equipment using diesel fuel on the apron
- On-airport road vehicle traffic
- Landside vehicles
- Emissions of hydrocarbons and odours from aircraft and road vehicle refuelling/de-fuelling and emissions from fuel storage tanks.

In line with the EMS, air quality management procedures are outlined in CEMPs and OEMPs to minimise emissions of dust, odour and other pollutants.

Air quality actions completed during the previous Environment Strategy can be viewed in Table 11.19 with the 2020 Strategy Actions in Table 11.20.

11.12 CULTURAL AND HISTORIC HERITAGE

Key Objective:

To ensure sites of cultural and historic heritage value are managed in accordance with legislative requirements.

11.12.1 HISTORIC HERITAGE

Godden Mackay Logan Pty Ltd (GML) was commissioned by APAL to prepare a Heritage Management Plan (HMP) for Launceston Airport. The HMP was completed in March 2013 and a comprehensive review and update was performed by Southern Archaeology in 2019.

The 2019 review found that the values of Launceston are embodied in nine elements of moderate and above heritage value within the airport land: hangars 10, 14 and 17, buildings 26 (air traffic control tower), 105 and the terminal gardens, as well as three areas of historical archaeological sensitivity related to the former properties 'The Springs', 'Kirkdale' and 'Cowley'. Two 'potential historic sites' were also identified along the north-eastern perimeter road of the estate.

The 2019 built heritage review also resulted in a number of additional sites being added with buildings 47, 108, 109 and 16 (attached to 17) being included in the defined heritage group.

Further, in 2016 building 26 (the Launceston Air Traffic Control tower) was listed as a Commonwealth Historic Heritage Place (place ID: 106121). The tower 'is of historical significance in a national context as a rare and representative surviving example of a post-World War II era control tower equipped to an international standard following guidelines devised by the International Civil Aviation Organization.'

The tower was designed in 1955, built about 1956-58 and is believed to have been commissioned in 1958, making it one of the oldest surviving operational towers in Australia. It has been used for its intended purpose since completion, and is a component of a large and significant air traffic control and operations centre established at Launceston Airport following World War II.

The HMP has been developed with the ongoing operational requirements of a busy regional airport in mind. The main pressure on the significant hangars on the site is their location and the restrictions this may place on possible future uses. The cultural and historic heritage actions completed during the previous Environment Strategy can be viewed in Table 11.21 with the 2020 Strategy Actions in Table 11.22.

11.12.2 CULTURAL HERITAGE

The Launceston Airport site is relatively small (180 Ha) with very little undeveloped land available for expansion. The majority of landside is developed or has had some form of significant ground disturbance.

An Aboriginal Heritage Assessment Report (AHAR) had not previously been prepared for APAL. As such, there were no previously recorded Aboriginal sites located at Launceston Airport. The HMP concluded that while there may be cultural heritage values attached to the airport, this could only be determined by the Aboriginal community and recommended a site survey be conducted once the community ban has been lifted.

In 2018 (after the community ban was lifted) Launceston Airport commissioned a survey using external consultants and an Aboriginal Heritage Officer to undertake a survey of the airport to determine if aboriginal sites may be present. Three (3) artefact scatters (AH13662, AH13663 and

TABLE 11.19 COMPLETED AIR QUALITY ACTIONS FROM THE 2015 AES

ACHIEVEMENTS IN THE PREVIOUS FIVE YEARS SINCE 2015
Dust suppression was used where necessary on all sites where it could impact on the local environment (e.g. construction projects).
Ground handling agencies introduced electric vehicles (tugs) in the baggage hall.

TABLE 11.20 STRATEGY ACTION PLAN 2020

2020 ACTION NUMBER	PROPOSED ACTIVITY	TIME FRAME
28	Monitor, record and investigate air quality complaints made to the airport.	Complaint based
29	Ensure CEMPs outline strategies to manage dust.	Ongoing

TABLE 11.21 COMPLETED CULTURAL AND HISTORIC HERITAGE ACTIONS FROM THE 2015 AES

ACHIEVEMENTS IN THE PREVIOUS FIVE YEARS SINCE 2015
Completed a Heritage Management Plan review of the airport site by consultants Southern Archaeology (December 2018).

TABLE 11.22 STRATEGY ACTION PLAN 2020

2020 ACTION NUMBER	PROPOSED ACTIVITY	TIME FRAME
30	Actively preserve sites of cultural and historic heritage significance in accordance with Commonwealth and state legislative requirements.	Annual
31	Continue to implement the policies of the Heritage Management Plan (including Aboriginal heritage).	Ongoing
32	Train relevant employees in interpretation of the Launceston Airport Heritage Management Plan and its implementation.	Annual
33	Identify opportunities for enhanced visitor information based on Launceston Airport's cultural heritage assets.	2022

AH13664) and one (1) isolated artefact (AH13665) were identified and recorded within or near the Launceston Airport study area. Two Potential Areas of Sensitivity (PAS) were also identified in the survey (Fig 11.1). The survey report also noted that a number of locations could not be surveyed due to no access or long grass covering the ground surface.

Based upon the survey findings, an Aboriginal Heritage Management Plan (AHMP) was prepared which includes recommendations to mitigate potential damage to known Aboriginal heritage sites and PAS. Aboriginal Heritage Tasmania (AHT) was consulted through development of the AHMP and has endorsed a final version of the plan. APAL is committed to implementing the recommendations of the AHMP and will continue to engage with AHT prior to any works in areas of known potential Aboriginal heritage values.

11.13 GROUND-BASED NOISE

Key Objective:

To manage and minimise ground-based noise emissions associated with the operation of the airport.

11.13.1 OVERVIEW

The management of airport noise is separated into air and ground-based noise sources. The noise generated by aircraft during flight, taxiing, landing and take-off is regulated by Airservices. While air noise tends to be a more significant source of noise impacts on surrounding areas than ground-based noise sources, this action plan focuses on Launceston Airport's ground-based noise sources that have the potential to adversely affect the local community.

11.13.2 GROUND-BASED NOISE

Ground-based aviation noise activities are regulated by DITRDC under the AEPR.

The potential sources of ground-based noise on Launceston Airport are aircraft manoeuvring and their landing and take-off cycle. There is no permanent aircraft maintenance facility on-airport and engine running for testing purposes is infrequent and confined to apron areas. Sources of non-aviation noise include:

- Road traffic
- Construction and demolition activities
- Tenant activities
- Noise from plant and equipment
- Ground service equipment
- Freight operations.

All major construction projects require CEMPs which require the noise to be managed according to the AEPR.

No ground-based noise complaints have been historically received by Launceston Airport, undoubtedly attributable to the rural location of the site and relatively low residential density around the airport.

Ground-based noise actions completed during the previous Environment Strategy can be viewed in Table 11.23 with the 2020 Strategy Actions in Table 11.24.

TABLE 11.23 COMPLETED GROUND-BASED NOISE ACTIONS FROM THE 2015 AES

ACHIEVEMENTS IN THE PREVIOUS FIVE YEARS SINCE 2015
No recorded ground-based noise complaints during the five-year period.
Retained a register of complaints related to aircraft activity.

TABLE 11.24 STRATEGY ACTION PLAN 2020

2020 ACTION NUMBER	PROPOSED ACTIVITY	TIME FRAME
34	Continue to ensure that all contractor CEMPs incorporate measures to minimise ground-based noise.	As required
35	Monitor all noise complaints to determine whether there are any particular emerging trends or issues.	2-monthly

11.14 HAZARDOUS MATERIALS

Key Objective:

To ensure all hazardous materials are stored, handled, used and disposed of in accordance with Australian Standards and applicable regulations.

11.14.1 OVERVIEW

AEPR declares that state legislation applies to hazardous materials, as this is primarily an occupational health and safety matter. Inappropriate management of hazardous materials can have adverse impacts on the environment.

11.14.2 CHEMICAL USE AT LAUNCESTON AIRPORT

A number of hazardous materials are stored and used at Launceston Airport, including fuel, oils, solvent-based chemicals and hazardous building materials. Without appropriate management and procedures, hazardous materials have the potential to affect the environment, including soil, groundwater, surface water, air quality, and human health and safety.

Sources and uses of hazardous materials at Launceston Airport include:

- Bulk aviation and automotive fuel storage and handling
- The storage and usage of firefighting foam
- Tenant operated maintenance facilities for vehicles and aircraft

- General airport operation, construction, maintenance and landscaping, including the use and disposal of pesticides and herbicides; solvents and paints; batteries and asbestos-containing materials within existing buildings; fuels and cleaning chemicals
- Other hazardous materials present in buildings and structures including:
  - Lead-based paints
  - Polychlorinated biphenyls (which may be present in lighting capacitators and transformers)
  - Ozone depleting substances (potentially used as refrigerants in cooling systems).

11.14.3 MEASURES TO REDUCE IMPACT

Current policies operated at Launceston Airport include UST monitoring procedures which require annual tank tightness testing to be undertaken, leak detection equipment on commercial facilities and correct storage of chemicals.

APAL maintains a hazardous materials risk register, an asbestos register and a manifest of hazardous materials on-site. Known sites of asbestos are monitored and, where possible, removed.

Launceston Airport has several control measures in place to ensure all activities involving hazardous materials are appropriately managed:

- The Launceston Airport Emergency Plan details the standard operating procedures to minimise volatile organic and odorous emissions in the event of chemical spills and to reduce any potential environmental impacts
- Tenants are required as part of their OEMPs to maintain registers dealing with all hazardous materials (including asbestos) stored, handled or used as part of their operations. The individual OEMPs must include provisions for phasing out hazardous materials in favour of safer alternatives and reviews are conducted annually
  - Tenants are responsible for ensuring that for operations under their control, these procedures and control measures are adhered to and that appropriate records and registers are maintained.
  - Smaller or lower risk tenancies are still required to practice appropriate hazardous materials management.

Hazardous materials actions completed during the previous Environment Strategy can be viewed in Table 11.25 with the 2020 Strategy Actions in Table 11.26.

TABLE 11.25 COMPLETED HAZARD MATERIALS ACTIONS FROM THE 2015 AES

ACHIEVEMENTS IN THE PREVIOUS FIVE YEARS SINCE 2015
Conducted a hazardous materials risk assessment and maintained a hazardous materials risk register and a manifest of hazardous materials on-site.
Staff, tenants and contractors reported any major chemical or hydrocarbon spills and reported minor spills greater than 2 litres within 24 hours.
Launceston Airport and its tenants continued to monitor known sites of asbestos for signs of deterioration, record their condition and reporting where possible.
Monitored and ensured that all hazardous materials were stored in accordance with Australian Standards and applicable regulations.
Ensured that SDS were available for hazardous materials stored in all workplaces. A review of tenants formed part of an annual inspection program.
Significant asbestos remediation activities were undertaken in the terminal undercroft and boiler room.

TABLE 11.26 STRATEGY ACTION PLAN 2020

2020 ACTION NUMBER	PROPOSED ACTIVITY	TIME FRAME
36	Map type, volumes and locations of hazardous materials held on-airport and ensure that they are stored in accordance with Australian standards with SDS provided. Undertake regular inspections accordingly.	6-monthly
37	Require tenants to inspect and monitor USTs and ASTs to ensure that contamination of surrounding areas is not occurring.	Annual
38	Ensure the storage and handling of contaminating substances are addressed appropriately in contractor CEMPs.	As required