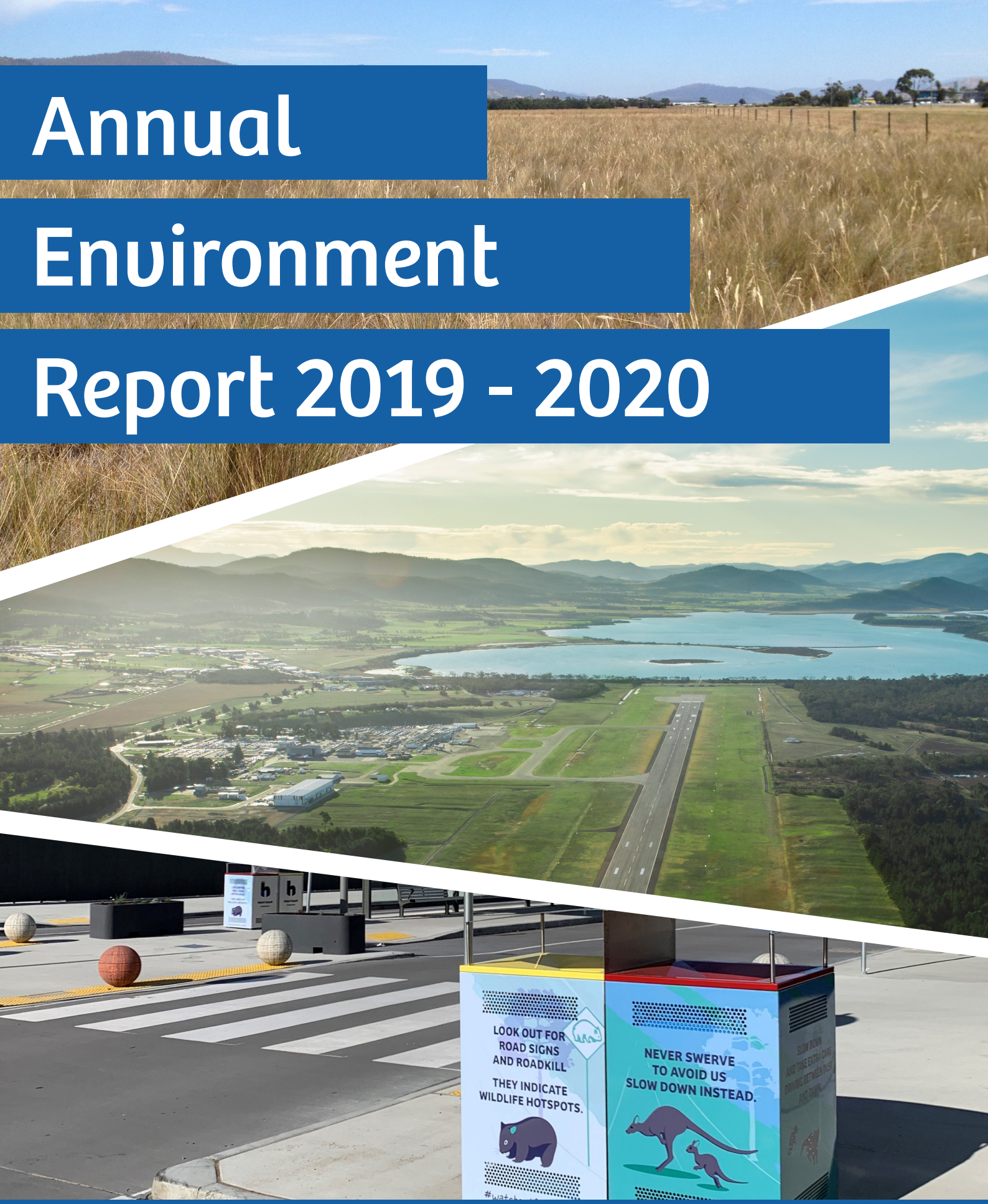
Annual Environment Report 2019 - 2020



Connecting Communities

Hobart Airport
TASMANIA

Executive Summary

Hobart Airport's Annual Environment Report (AER) for 2019-2020 summarises the airport's environmental performance over the year and its environmental achievements to date when compared to the Environment Strategy, currently outlined in the Hobart Airport Master Plan as Chapter 13. While this document fulfills the regulatory requirements for reporting on the environment, it also highlights the significant achievements the airport has made in matters of ongoing environmental improvement and the implementation of measures to reduce environmental harm from site activities.

Over the past 12 months, the airport has continued to demonstrate continuous improvement in environmental management, evident in the projects completed, currently underway or planned as part of future development. The management of the environment is integrated into the airport's management systems, site management procedures and routine maintenance activities. The airport continues to facilitate and maintain environmental awareness amongst staff, tenants and contractors undertaking activities on airport grounds, resulting in a cohesive approach in dealing with matters pertaining to the environment.

Environmental monitoring is an important aspect of ensuring best practice in environmental management. The commitment to monitor the potential impacts of various activities allows for the early detection of the potential for environmental harm and the early implementation of mitigation measures to protect the existing environmental values. The airport is committed to ongoing monitoring to ensure that the immediate environment is holistically managed.

A total of 53 environmental objectives and targets are identified in Chapter 13 of the Master Plan within the Environment Chapter. These achievements are reflected in the number of commitments met, and those that remain routine and ongoing. Routine and ongoing commitments are achieved as a matter of course should the need arise. In summary, of the 53 commitments identified, all have been achieved within the strategy period.

	Commitments Achieved	48
	Routine (as required)	3
	Continuous (ongoing)	2
	To be completed	0

Examples of the airport's achievements over the past 12 months are highlighted throughout this document and reflect the airport's proactive approach to managing the environment. The strategies and measures the airport has in place ensure that best practice environmental management is achievable and is consistent with the airport's Environmental Policy, objectives and targets for the future. All commitments are outlined in Chapter 13 of the Master Plan (2015-2020) and include ongoing and routine activities that will be reported against in future AERs submitted for Hobart Airport.

Due to the Covid-19 pandemic, some monitoring activities have been reduced based on a reassessment of risk. It is expected that monitoring frequencies will resume as recovery activities increase.

1. Introduction

This report comprises Hobart Airport's Annual Environment Report (AER) for the 2019-2020 financial year. Summarised within the report is the airport's environmental performance over the course of the year and its environmental achievements to date. It also highlights the key environmental objectives and actions for the following year. The location of Hobart Airport is illustrated in **Figure 1**.

This document fulfills the statutory annual reporting requirements of the *Airports (Environment Protection) Regulations 1997* and has been prepared using information derived from scheduled monitoring, reporting, on site environmental management and supplementary reporting and investigations. The current Airport Environment Strategy (AES) included as Chapter 13 *Environment* in the Hobart Airport Master Plan, is relevant for the period 2015-2020 and is required to be reviewed and updated every five years as required under the planning framework of the *Airports Act 1996.* The new Master Plan, including revised environmental targets and objectives, has been developed and is in the exposure draft phase on track for approval by the Commonwealth, expected late 2021. An extension for the approval was granted due to disruptions caused by the Covid-19 pandemic. Chapter 13 within the Master Plan outlines the airport's strategy in managing the environmental values on site and provides a framework on which to promote good governance and continuous improvement in environmental management. The revised environmental targets and objectives will be provided in the next financial year reporting.

2. Annual Environment Report Requirements

The *Airports (Environment Protection) Regulations 1997* outline the requirements for the AER as the following:

- *6.03 Annual Report*

  (1) The airport-lessee company for an airport must give the Secretary a report for each financial year, or another reporting period that the Secretary determines, containing:

  (a) Information, mentioned in sub regulation 6.02 (3), added to the environmental site register for the preceding year; and

  (b) Details of the company's performance in achieving the policies and targets of the environment strategy and, in particular, of the company's progressive management of enduring environmental pollution problems at the airport; and

(c) *A report of incidents of pollution and other contraventions of the regulations that have occurred during the year to which the report applies.*

Figure 1 Hobart Airport Site Location

3. Continuous Improvement

3.1 Environmental Audits

Environmental audits on tenants at the airport have been undertaken on an annual basis for the past four reporting periods. This auditing frequency has facilitated a comprehensive understanding of the tenant's activities and the associated inherent risks to the environment. With this understanding, in 2018 the airport altered the frequency in which audits are now undertaken, to reflect Tier 1, Tier 2 and Tier 3 tenants. The prioritisation of tenant auditing is now based on the following:

1. Tier 1 tenants are those tenants that use and store fuels and chemicals that have the potential to interact with the environment through accidental spillage or overflow. Tier 1

tenants also include those with activities that require discharges to the environment (e.g. wastewater). These tenants are audited annually.

2. Tier 2 tenants are those tenants that store or use chemicals or contain areas where hazardous materials are stored and have the potential to interact with the environment through accidental spillage or overflow. These tenants are audited every second year.
3. Tier 3 tenants are those tenants that do no store or use chemicals and have activities that have little interaction with the environment. These tenants are audited once every three years.

The auditing process is undertaken by the HBA Environment Manager. Individual audit reports are prepared for all audits undertaken and are provided to the AEO on completion. The tenant environmental audits are available on request. In the 2019-2020 financial year all audits undertaken on tenants will be completed using iAuditor, a mobile reporting system with built in analytics and reporting tools. As the new risk management system is implemented, the auditing of tenants will be undertaken using the platforms available, and which can be developed within the system to ensure fit-for-purpose.

3.2 Site Management Procedures (SMPs)

All Site Management Procedures (SMPs) have been updated in the past 12 months. All SMPs updated are reviewed internally by HBA and provided to the AEO for comment. These include the following:

- SMP01 – Contaminating Substances
- SMP02 – Asbestos Management
- SMP03 – Air Quality and Noise
- SMP04 – Waste Management
- SMP06 – Stormwater Runoff and Treatment
- SMP07 – Significant Areas
- SMP08 – Vegetation Management
- SMP09 - Mowing
- SMP10 – Weed Management
- SMP13 – Environmental Awareness
- SMP14 – Llanherne House

- SMP15 – Environmental Monitoring
- SMP16 – Stockpile Management

3.3 Administrative

Sustainability Strategy

A Sustainability Strategy is in the process of being developed for Hobart Airport. The Strategy will focus on how each business unit can embed sustainability into planning, projects and activities. A collaborative approach to its development commenced in the first half of 2020, with the agreement on a sustainability framework. It is anticipated that a draft strategy will be completed by December 2020 and endorsed in the first quarter of 2021.

Climate Adaptation Plan

Hobart Airport has developed a Climate Adaptation Plan (CAP) and is an action that was identified in the Carbon Management Plan. The Hobart Airport CAP has been finalised and is pending Board Approval (expected by end October 2020).

The CAP provides an overarching policy to articulate the Airport's approach to managing climate change risks and opportunities. The Plan outlines four adaptation themes to guide effective climate adaptation and resilience. A climate change risk assessment was undertaken to identify the priority climate hazards and resulting risks to Hobart Airport. The adaptation actions have been developed to help better manage the impacts of these priority risks.

3.4 Energy and Resource Use

Carbon Accreditation – Level 2 Reduction

The Airport Carbon Accreditation Scheme (ACA) is the only institutionally endorsed carbon management certification standard for airports and provides the platform in which airports can work towards reducing carbon emissions. Hobart Airport first participated in the ACA Carbon Accreditation process in January 2017 and were awarded with Level 1 Carbon Accreditation - Mapping. In February 2018, Hobart Airport's level 1 accreditation rating was renewed, and in February 2019, Level 2 carbon accreditation – Reduction, was achieved. Due to disruption caused by the Covid-19 pandemic, Hobart Airport will maintain Level 2 accreditation for the year 2021.

The program provides the framework and tool for active carbon management, providing measurable results from year to year. There are four levels of carbon accreditation that can be achieved. These include:

1. Mapping
2. Reduction
3. Optimisation
4. Neutrality

Level 2 carbon accreditation enables an airport to fulfil all the requirements of carbon mapping, provide evidence of effective carbon management procedures including target setting, and demonstrate a reduction in the airport's carbon footprint by analysing the carbon emissions data of consecutive years. This understanding enables Hobart Airport to guide and support continual environmental improvement in reducing carbon emissions through new initiatives and stakeholder engagement.

Carbon Offsets

Since July 2018, HBA contributes in Airline carbon offset programs each time a staff member books a flight. The commitment to fly neutral is not-for-profit, with all money going towards government accredited projects. For example, Qantas carbon offsets contribute to the following environmental causes:

- The protection of 7,000 hectares of native Tasmanian forest
- Prevention of wildfires in the North Kimberley using 50,000 years of knowledge applied by Indigenous rangers
- Contributing to clean, renewable energy sources for communities in Southern India, from 812 wind turbines.

Hobart Airport continues our commitment to offsetting carbon impacts associated with business travel. In the last financial year, a total of 94 flights (including those with multiple connections) had offsets applied, from July 2019 -March 2020.

Holyman Ave LED Lighting

Holyman Avenue is the main road into Hobart Airport and provides access to Tasman Highway for the residents of the Seven Mile Beach community. A total of 56 light fittings were replaced with LED lighting. It is expected that with the changeover to LED lights, energy use will reduce by approximately 8.47 kWh per day. This upgrade contributes to both energy cost savings and continues to our goals in reducing our carbon footprint.

Figure 2 Holyman Ave LED Lighting

Terminal and Administration Building LED Lighting

Reducing energy consumption is a key focus for Hobart Airport and is supported by our LED replacement program. All pre-existing lighting has now been replaced in both the airport terminal and the Hobart Airport administration building, seeing the removal of fluorescent tubes and light fittings to more efficient LED supply. It is anticipated that the lighting replacement will further reduce our carbon footprint and energy use.

Figure 3 Hobart Airport Administration LED lighting

Wicking Bed Planter Boxes – Forecourt

On completion of the Terminal Forecourt upgrade, 33 planter boxes were installed to give the area some vibrancy for passengers arriving and departing from Hobart Airport. To minimise potable water use, a product called “Waterups” was selected, based on their wicking system properties and ability to hold water at all times of the year. To further enhance water retention and water saving measures, a “Terracottem” soil conditioner was added, a product that contains water holding crystals that are embedded in the soil. Drought tolerant plants native to the area were selected, giving all plants the best chance of survival while reducing the amount of water required to keep them alive.

Figure 4 Forecourt Wicking Bed Planter Boxes

Going Paperless – Licence Plate Recognition Parking

Towards the end of 2019 HBA implemented a project to deliver Licence Plate Recognition to all our carparks. On top of the customer centric, operational and analytics benefits, the introduction of this technology will significantly reduce the amount of paper tickets issued on entry and the need for passengers to enter our carparks with a printed QR code, previously sent on confirmation of an online booking.

There are additional health benefits associated with this project, as customers who book online can enter and exit the carpark without having physical contact with common touch points such as pay machines.

Figure 5 Going paperless with licence recognition

3.5 Water Quality

Groundwater Monitoring

Groundwater monitoring occurs twice yearly, increasing from annually in 2018. The change in frequency was initiated to better understand the seasonal influences and the effects these influences have on the movement and migration of contaminants. This is deemed particularly important for project planning where groundwater has the potential to be intercepted. The winter Groundwater Monitoring Event (GME) was undertaken in January 2020. Due to the disruptions caused by the Covid-19 pandemic a reduced scope was applied to the winter GME, focusing on sampling from one groundwater well only (HA23), being the only well with fluctuating levels of contaminants. It is expected that GME's will return to their original scope from January 2021.

Surface Water Monitoring

Surface water monitoring occurs twice yearly in March and September. Due to the disruptions caused by the Covid-19 pandemic sampling was not undertaken in March 2020. The absence of monitoring for this month was considered low risk due to the ongoing data and consistent results over time. Monitoring will resume as per the normal routine from September 2020.

Surface water monitoring reports will be provided in next year's AER.

3.6 Contaminated Land Management

Airservices Wastewater Treatment Trial

The Airservices Australia (Airservices) fire training ground at Hobart Airport currently produces wastewater from training exercises and rainfall. A research and development trial into the treatment of PFAS impacted water was initiated by Airservices in 2016, with the first of two treatment trial processes commissioned in September 2018 on site at the Hobart Airport Fire Training Ground. The second trial commenced in January 2020. The purpose of the trials is to assess the potential for the effective treatment of PFAS impacted wastewater along with other co-contaminants from the training ground. The first pilot trial plant has demonstrated its technical ability to reduce PFAS concentration in wastewater to below Limit of laboratory reporting (LOR). The first trial pilot plant was decommissioned by the end of 2019.

The second trial plant is currently in the commissioning phase. Outcomes of this trial will be provided in next year's AER.

Figure 6 Insite PFAS Treatment Trial at Fire Training Ground

Airservices Treatment Trial to Immobilise PFAS in Concrete

Airservices Australia (Airservices) has been undertaking an in-situ trial of a concrete treatment, X55, at the airside washdown pad at the Hobart Airport fire station. The purpose of the trial was to determine if X55 can successfully reduce or eliminate the discharge of residual per- and poly- fluoroalkyl

substances (PFAS) from PFAS impacted concrete infrastructure by preventing leaching via runoff. Bench-scale studies proved promising, however in-situ trials are required to demonstrate the effectiveness of the application in reducing PFAS discharge from impacted operational infrastructure. The trial included baseline sampling and closed-circuit CCTV inspection of stormwater infrastructure, preparation of the airside washdown pad, application of the product, post-treatment sampling (short-term and long term) and reporting of the outcomes of the trial. Although delays were caused by restrictions associated with the COVID-19 pandemic, all physical works have been completed and a final report on the outcome of the trial has been received.

The report concludes that the X55 treatment can reduce PFAS leachability of impacted concrete to a significant extent, however at this particular location, the reduction was not sufficient enough to reduce PFAS concentrations in runoff to below generic ecological criteria (Arcadis, August 2020).

Figure 7 Field trial location for X55 at the Fire Station Building

3.7 Biodiversity

Flora, fauna and natural values are continuously managed throughout the site through annual monitoring and project specific investigations. Monitoring activities include the mapping of threatened species, condition monitoring of vegetation communities and targeted flora and fauna

investigations as required. Mapping and monitoring of plant species predominantly occur over spring and summer during optimal flowering seasons, whereas fauna investigations are specific to the individual targeted species. Floristic monitoring occurred throughout the 2019/2020 spring/summer flowering season. Weed species have been monitored throughout the year. All monitoring data on flora and fauna is provided to the Tasmanian Natural Values Atlas database.

Camera Trapping

Camera traps remain in operation around the airside perimeter fence in high fauna movement areas and are monitored every 2-3 weeks for new data. A number of native fauna species, including threatened species, have been observed moving through the airport site, predominantly near Gate 11 and 13. A range of fauna use the airport for foraging or habitat, including the Tasmanian Devil, Spotted-tailed Quoll, Tasmanian Bettong, Echidna, the Tasmanian Pademelon, Bennett's Wallaby, Brushtail Possum and both Bandicoot species. In late January the camera traps revealed the presence of a wombat airside. As a result of the early detection, Operations staff were able to increase patrols and eventually find the entry point for this species. Increased monitoring continued to ensure the wombat left the airside environment and was safely on the other side of the security fence.

Figure 8 Wombat encountered airside

The information captured on the camera traps has been collated and used to determine the range of fauna utilising this area of the airport, frequency and time of visitation. This information adds to the Airport's knowledge of wildlife and potential hazards created in airside environments, enabling improved management approaches for the range of species that call Hobart Airport home. All information is recorded and provided to the Threatened Species Unit within the Department of Primary Industries, Parks, Water & Environment (DPIPWE). The information is subsequently recorded on the state database for threatened fauna.

Virtual Fencing

In May 2019, a virtual fence was installed along 1km of Grueber Avenue in an area that was subject to wildlife impacts. The installation of Virtual Fencing has a twofold benefit, in preventing adverse harm to wildlife and creating a safer road for tourists and the general public.

Virtual Fencing is an active electronic protection system that prevents animals from crossing the road when a vehicle is approaching at night. It has proven to be extremely effective in preventing wildlife-vehicle collisions in Australia and around the world. Latest tests have seen a 60-70% reduction in wildlife vehicle collisions. The virtual fence uses the latest non-invasive audio and visual systems to alert animals and prevent vehicle contact, all of which are solar powered. This project was undertaken as part of Hobart Airport's Corporate Social Responsibility platform.

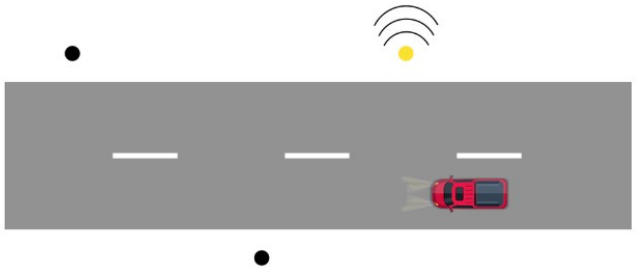


Figure 9 Virtual Fence Operation

The fence was installed in early May 2019, and in the first 12 months of its installation resulted in a 63% reduction in animal fatalities compared to the previous year. The initiative has been welcomed by the local community, with feedback on a notable reduction in animals being impacted on the road. We know that a number of threatened species utilise the surrounds of the airport, including the critically endangered Tasmanian Devil and the Spotted-tailed Quoll. On this basis, the virtual fence initiative was proposed to ensure potential impacts to all species were minimised.

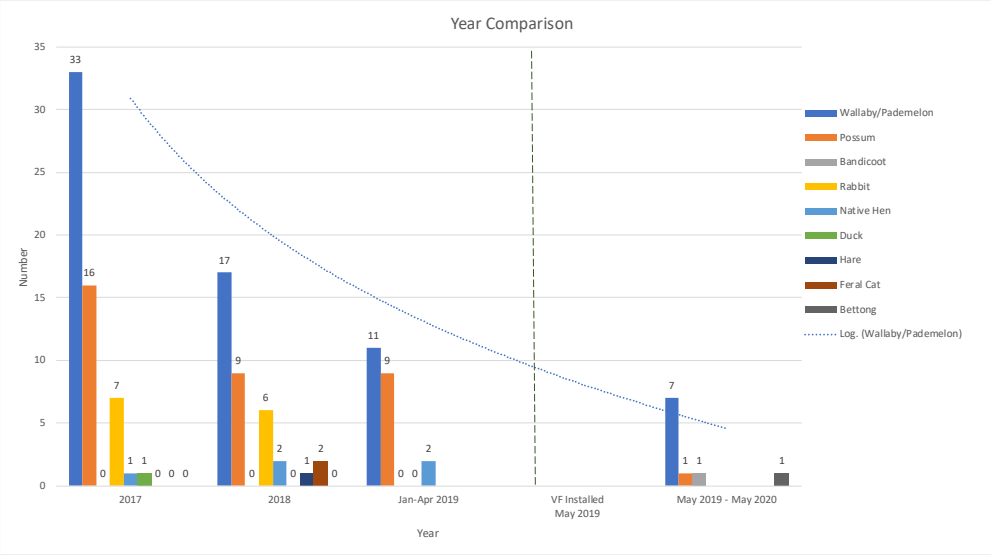


Figure 10 Virtual Fence statistics following in first year of installation

Watch out for Wildlife

In Tasmania hundreds of thousands of native animals are killed by motor vehicles each year. In a bid to protect wildlife from the impacts of vehicles, Hobart Airport and Bonorong Wildlife Sanctuary launched the Furry Feathered Friends campaign in 2018, encouraging travellers to watch out for our furry friends as they move around the state. The partnership aims to drive mass awareness in order to prevent unnecessary animal deaths on our roads and eliminate potentially dangerous situations for motorists.

The campaign has grown over the past two years with the watch out for wildlife messaging now in visitor centres from Geeveston to Cradle Coast as well as on the windscreens of 5000 rental cars around Tasmania. In early 2020, stickers were distributed to all car rental agencies on Airport and new bins were installed as part of the recently completed forecourt area sharing the same messaging – to slow down between dusk and dawn and to take extra care on our roads.

Hobart Airport and Bonorong are committed to spreading the wildlife road safety message to as many Tasmanian road users as possible to make our roads safer for both everyone, especially our iconic species.

Figure 11 Watch Out for Wildlife messaging on forecourt bins (left) and car rental windscreens (right)

Fifteen Trees

At Hobart Airport we are always looking for ways to reduce our carbon footprint and play our part in preserving Tasmania's unique natural environment. This year, we partnered with Fifteen Trees to plant a new tree in Tasmania for each day our airport is in operation.

Our trees were planted as part of a bigger environmental initiative by Brighton Council in conjunction with Spring Bay Mill and a horticulturalist to reinvigorate the Polonia Park landscape in the Brighton community. With a focus on flora that was once native to this area, some of the species planted include white peppermints, black gums, native primrose, spreading flax-lily and kangaroo grass.

Figure 12 A Tree Planted for every day of Operation in Polonia Park, Brighton

Seven Mile Beach Seedling Monitoring

The dune and beach area of Seven Mile Beach is currently defined as one of the Airport's Environmentally Sensitive Areas (ESAs) due to its coastal nature and the vulnerabilities associated with this type of landform. In addition to this, the site contains the Tasmanian threatened vegetation community DVC – *Eucalyptus viminalis* (White gum) coastal forest and woodland. Hobart Airport has developed a Conservation Management Plan for this area of coastline, given its coastal vulnerability and susceptible natural values.

Occasional tree lopping, and removal of White gum and pines is required to meet the CASA compliance requirements for the Obstacle Limitation Surface (OLS). To assist the local Seven Mile Beach Community in the regeneration of the White gum community, the Airport has planted 63 juvenile trees and contributes to weed removal in the area to facilitate natural recruitment. The success of the plantings has been monitored twice yearly since 2016, transitioning to annual monitoring from 2019, three years post planting. At the time of reporting, the number of seedlings remaining stand at 25, with 4 individuals dying since the last monitoring event in May 2019, resulting in a survival rate of approximately 40%. Ongoing monitoring of the White Gum seedlings will continue, alongside on ground practical efforts to encourage natural recruitment. Measures include removal of coastal wattle (which has a shading effect on juveniles) and pine trees, and the continuation of

working with the local Seven Mile Beach Coast Care Group.

Figure 13 Juvenile White gum plantings – August 2020 and healthy sapling (right)

The majority of seedlings were lost over the hot summer months in the first year of planting. Seedling losses in subsequent summer periods have been much less (Figure 11).

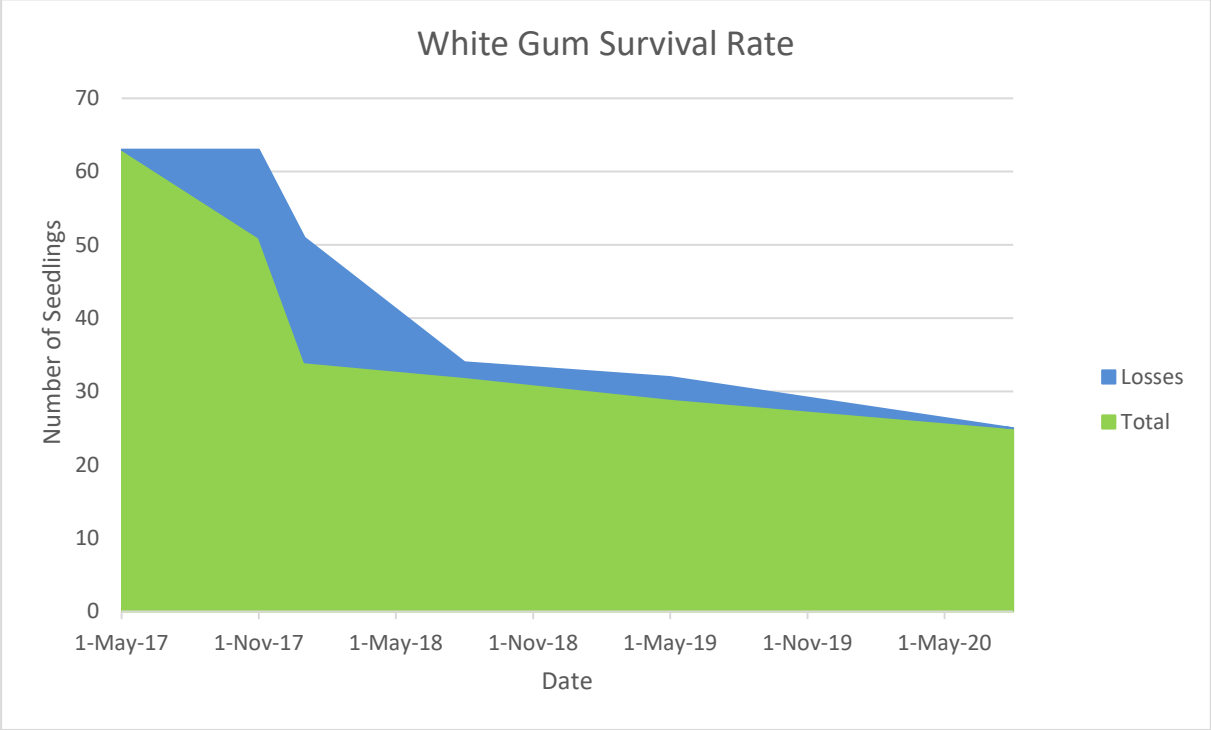


Figure 14 White Gum Counts – Seven Mile Beach Conservation Area

Indigenous Land Management Practices

In the wake of the 2019-2020 Australian wildfires, it has never been more important to undertake effective land management to protect both life and our biodiversity values. Our landscape has been traditionally managed for thousands of years by indigenous communities, resulting in land that is both productive and sustainable. In Tasmania there are many sites that are seeing the return of traditional forms of management such as cool mosaic burning, with very positive outcomes. Hobart Airport is privileged to have an EPBC listed Lowland Native Tasmanian Grassland which is currently listed as Critically Endangered nationally. To better manage our grasslands Hobart Airport has initiated consultation with traditional land managers to undertake management actions that will continue to improve the integrity of the grassland, while offering an educational opportunity for other land management agencies.

We have commenced the application process for a Part 13 EPBC permit from the Commonwealth in partnership with the Tasmanian Aboriginal Centre (TAC). An update will be provided in next year's AER.

Figure 15 Tasmanian Lowland Native Grassland at Hobart Airport

Weed Management

The mapping of weed species on airport managed land enables HBA to determine the effectiveness of the Hobart Airport Weed Management Plan and actions implemented to date. A review of the plan is undertaken on an annual basis and modified where required.

Weed species on the airport are continually targeted with priorities based on current listing (i.e. WoNS, State Declared or environmental weeds) and areas where weed control is a priority due to operational reasons or risk of weed transfer. Environmentally Significant Areas (ESAs) have site specific weed management approaches which are scheduled and implemented throughout the year. All weed species are targeted in ESA areas to maintain their listing status and environmental value. For example, weed species continue to be progressively removed from the EPBC saltmarsh community east of the runway and the EPBC grassland community west of Holyman Avenue. Spanish Heath has been another target species in this area, where at least 100 plants have been removed by hand.

African lovegrass has been observed in notable infestations at the Freight Precinct and has been a site targeted for weed removal over the reporting period.

3.8 Waste Management

The development of the Airport's Waste Management Strategy in May 2018 resulted in fifteen actions being identified to effectively manage and improve the ways in which waste is managed at Hobart Airport (Table 1). In the last two years, eleven of the initiatives have been actioned or are in progress, the status of which is highlighted in the table below.

Table 1 Hobart Airport's Waste Management Action Plan

Goals	Management Actions	Timeframe	Status
Improve knowledge of waste type, and relative volumes for the Terminal and Hobart Airport office	Undertake a waste management audit	2018-2020	Delayed due to Covid-19 disruptions
Understand waste streaming and ways in which waste streams can be better segregated within the Terminal and Hobart Airport office	Undertake a waste stream review and determine where segregation can be improved to maximise diversion rates	2018-2020	Delayed due to Covid-19 disruptions
Improve the function and design of the external waste collection station	Incorporate redesign of waste collection centre(s) in Terminal design	2020	Achieved (but project delayed)
Increase the amount of waste diverted from landfill (+ 25% of 2017 levels) by 2022	Standardise waste management infrastructure processes and services throughout the terminal and Hobart Airport office	2019	Achieved
	Assess potential for collection of compostables (food scraps and coffee grinds) in the Terminal and Hobart Airport office	2019	Achieved
	Assess potential for recycling of soft plastics for back of house and Hobart Airport office	2021	Achieved
	Improve the segregation of waste in car parking areas	2021	On track

Goals	Management Actions	Timeframe	Status
	Engage with stakeholders to improve understanding of waste management at the airport	2018	Achieved
	Investigate options for auctions for lost property, with money raised donated to charity	2018	Achieved
	Increase and improve the capture of waste data and analysis	2019	Achieved
Provide waste management guidance to tenants and contractors	Engage tenants and contractors to inform and liaise on waste management efficiencies and recycling	2019	Achieved
Encourage tenants to use one management body for waste	Liaise with and engage tenants on the benefits of using HBA to manage waste streams	2022	On track
Reduce the amount of Quarantine waste to landfill	Investigate opportunities for reducing quarantine waste from airside environments	2022	Delayed due to Covid-19 disruptions (partially achieved with magazine waste)
	Engage with airlines and cleaning contractors	2022	Delayed due to Covid-19 disruptions
	Develop an Operational Manual for quarantine waste segregation in consultation with airlines and ground handling staff. Biosecurity endorsement required.	2020	Achieved

The three-stream waste segregation approach continues to be the most effective approach to waste segregation within the terminal. The waste streams included (1) Landfill, (2) Co-Mingled Recycling and (3) Organics. Each stream adopts a specific colour, further enabling passengers to separate their waste into the correct stream. The success of this initiative has been supported with the Terminal's transition to compostable packaging for all coffee cups and food trays provided by the Terminal food and beverage outlets. All compostable products used in the Terminal align with the receiving composting facility owned and operated by Hobart City Council.

In March 2019, major food and beverage outlets commenced the segregation of co-mingled recycling and coffee grinds from their businesses. Spent coffee grinds in landfill can produce methane and carbon dioxide, greenhouse gases that contribute to global warming. Diverting coffee grinds to our organics waste stream assists in reducing our impact and carbon footprint on the environment. While the diversion of organic waste has ceased during the Covid-19 pandemic, Hobart Airport intends to commence their first Circular Economy experiment using coffee grounds from one of our food and beverage tenants who also operate out of Cambridge Park. The intent is to use the coffee grounds generated from the café in a locally produced compost, which in turn will be used on airport grounds. The outcomes of this "circular economy experiment" will be included in next year's AER.

The extension of our waste diversion messaging continues to the areas outside the terminal with the installation of eight new bins to the recently completed forecourt area. The bins include options for two-stream waste segregation (recycling and landfill) with an added message that aligns with our Watch out for Wildlife educational campaign. The bins are displayed with messages that encourage our visitors to slow down at night when driving on Tasmanian roads to help save our iconic species.

Figure 16 Forecourt Area two-stream waste bins with wildlife messaging

Diversion of Biosecurity Magazine Waste

Biosecurity waste is a regulatory requirement in Tasmania and constitutes all waste collected from aircraft and in airside areas. All biosecurity waste is deep buried in landfill as per the Tasmanian Government requirements. In 2018, biosecurity waste comprised 35% of the Terminal generated waste. This waste is largely comprised of food waste, packaging, beverage containers and non-putrescible items that include magazines, newspapers and headsets.

At the end of each month airlines dispose of in-flight magazines, all of which are currently disposed into biosecurity waste. This equates to approximately 850 magazines per month which are transferred to deep burial landfill environments. Magazines are already segregated on the aircraft and transferred by Ground Handling Agent (GHA) staff to separate biosecurity bins awaiting collection. Hobart Airport proposed to Biosecurity Tasmania that magazine waste can be transferred to a co-mingled recycling stream with minimal risk to existing biosecurity measures.

Hobart Airport's intention is to target magazine segregation in the first instance, as this is perceived as the lowest risk item, and in time, advance to segregating newspapers, and eventually beverage containers as practices are embedded and training/education transferred to airline staff. Endorsement

from the Biosecurity Operations Branch was sought prior to the initiative being implemented on preparation and endorsement of an Operations Manual. The diversion of magazine waste at the end of month occurred in February 2020 for all aircraft. The initiative has been suspended during the Covid-19 pandemic and is intended to resume when it is deemed safe to do so.

Car park bin sensors

There are approximately 25 stand-alone general waste bins distributed throughout the car parking areas and connecting locations. Under normal circumstances, the bins are emptied daily, as per routine maintenance requirements, however not all bins are at capacity when emptied, resulting in smaller collections in some locations and unnecessary use of plastic bin liners which end up in landfill. In order to better understand the filling rates of bins, sensors have been placed on 20 bins in car parking areas. The sensors identify when the bin is ¾ full, sending a message via SMS to contractors and therefore improving the efficiency of waste management in car parking areas. The sensor trial was near completion when disruption occurred from the Covid-19 pandemic. It is expected that this trial will continue once flights resume and be replaced with fewer bins and options for waste segregation (recycling and landfill). The project outcomes will now be summarised in next year's AER.

Figure 17 Car parking bin with sensor

Tersano Cleaning System

Historically the airport has been cleaned using biodegradable chemicals, all contained within plastic containers which would be recycled or refilled by cleaning contractors. In addition to the waste generated from the chemicals, the products were required to be transported to site by commercial suppliers. The option to choose a chemical-free approach to cleaning was achieved in September 2019, with the transition to install a Tersano cleaning system in the terminal.

In collaboration with our cleaning partner, Collings Services, the introduction of the Tersano cleaning system has eliminated the use of chemicals in our cleaning practices. The system works by transforming water into an e-water cleaning solution that is capable of removing stains, sanitising and deodorising without the use of any dyes, fragrances or other harmful substances.

The installation of two Tersano cleaning units will see us cut our chemical usage by around 15,000 litres each year. Based on figures from the previous 12 months, the system will divert more than 90 plastic bottles from going to landfill and eliminate 20 chemical bottles from going into recycling. The system will not only see significant environmental benefit, it will also improve efficiency and safety for our cleaning staff and airport users.

An additional high-grade disinfectant is being used during the Covid-19 Pandemic.

Figure 18 Installation of the Tersano system in the Terminal Building

3.9 Tenant Audits

A total of 32 Tier 1, 2 and 3 tenants were individually audited during the months of October 2019 – June 2020 by the HBA Environment Manager. Tier 1 tenants include those tenants undertaking activities that have the highest likelihood of interacting with the environment and those that have the

potential to significantly impact environmental values i.e. fuel stations and storage, car rental agencies, those storing hazardous chemicals. Tier 2 and Tier 3 tenants will be audited every 2-3 years respectively and include tenants that undertake lower risk activities. All Tier 1 and new Tier 2 tenants were audited during the reporting period.

The individual audits assessed compliance against the AEP Regulations and HBA targets and objectives outlined in Chapter 13 *Environment* of the current Master Plan (2015). The audit addressed issues pertaining to the management of natural resources, energy, water, soil, biodiversity, noise and waste. Any follow up actions identified from the previous year's audit were undertaken. A report on each tenant was completed and provided to the AEO for review. All audit reports are incorporated into the IMS.

The key outcomes of the audit identified the following:

Cultural Aspects

The majority of tenants were aware of the cultural aspects associated with airport land and buildings. All were aware of the historical significance of Llanherne House and were aware that there were Aboriginal heritage sites present. While the location of the Aboriginal heritage sites was not necessarily known, this is largely due to state government requirements into keeping information on these sites out of the public arena. All tenants were informed of the recent listing of the Air Traffic Control Tower as a site of heritage significance, due to its World War II heritage value.

Natural Values

There is the potential for impacts to protected values by contractors and tenants who may have the need to interact with the natural environment as part of their day to day activities. Most tenants are aware of the conservation zones or environmentally sensitive areas across the airport site, particularly those tenants whose activities had potential interaction with environmental values. All tenants were made aware of the excluded areas associated with environmentally significant areas, particularly those areas where conservation status had changed.

Air Quality

Potential air quality issues are largely associated with hot fire training exercises by the Air Rescue Fire Fighting (ARFF) Service at the fire training grounds. ARFF provide hot fire reports to the Airport Environment Officer (AEO) and the HBA Environment Manager on completion of each exercise. The

report provides details on the time and date of the exercise, duration, the type and quantity of fuels, extinguishing agent and any unusual environment event.

Asbestos related material exists in various buildings and structures throughout the airport site. All tenants were aware if their building contained asbestos or not and where the signage was located, if present. All sites are documented in HBA's Asbestos Register which is updated regularly. Asbestos locations discovered as part of projects are incorporated into the register.

The presence of ozone depleting substances was noted during the environmental auditing process. Two chillers used to store perishable goods in transit remain in use at Qantas freight which are serviced regularly.

Water Quality

Lower Sinclair Creek receives runoff from a range of sources across the airport site including aprons, taxiways, airside wash down areas, surface drainage, grated drain inlets in car parking areas and open drains. Runoff from these areas has the potential to contain a range of contaminants including hydrocarbons, bacteria, general litter and silt. Surface water quality monitoring is undertaken at strategic locations around the airport to detect levels of contaminants (if any), and to effectively manage the airport site so that impacts to surface water quality are minimised. All reports are provided to the AEO on completion throughout the year.

Groundwater is monitored across the airport site, around the perimeter and at specific locations where activities with potential environmental risk occur, such as the fire training ground and fire station. Estimated aquifer levels around the airport's perimeter range in depth from 0.5 – 4.5m. Due to the nature of the sandy soils, there is the potential for contaminants to migrate through soils and into the underlying groundwater. Groundwater Monitoring Events (GMEs) are undertaken by HBA twice yearly, and annually by ARFF through specialist consultants. Reports are provided to the AEO and the HBA Environment Manager.

Natural Resources

A review of the electricity usage for the airport was undertaken in July 2020. The total energy usage (kwh) is documented per quarter. It is important to note that the electricity usage is best estimate only. This is due to the gradual transition to smart meters for tenancies across the airport and the disruption to energy readings during construction periods.

Overall results in energy usage for the past 12 months indicate a general decrease in energy usage over the last financial year which is expected due to the impacts from the Covid-19 Pandemic. A quarterly breakdown is provided below and includes all users on site, including the Department of Health and Human Services (DHHS) catering kitchen, which is a high energy user. The DHHS overall percentage contribution to energy consumption over the year is 4.24% of the total energy use. It is also expected that seasonal influences affect energy usage, with more heating required in winter months and cooling in summer. This is consistent with previous years' reporting.

- An increase in energy usage in Quarter 1 by 8.05%
- An increase in energy usage in Quarter 2 by 2.05%
- A decrease in energy usage in Quarter 3 by 11.25%
- A decrease in energy usage in Quarter 4 by 29.48%

Hobart Airport uses potable water except for the HBA Administration Building which operates off filtered tank water and is supplied by treated drinking water during lower rainfall periods. The total water usage for 2019-2020 amounted to 69,102 kL. Comparisons are made to previous year's usage and is incorporated into the ACI sustainability inventory on carbon reporting.

4. Environmental Site Register

The Environmental Site Register (ESR) is a written record of the airport's environmental condition and its approach to environmental management. The range of information held by the airport and that relate to environmental matters includes:

- Environment Chapter 13 within the current Master Plan (2015) which outlines the targets and objectives for environmental management over a five-year period. The revised Master Plan (2020-2028) is currently in draft format and includes a revision on existing targets and objectives.
- Site management plans i.e. Llanherne House, Weed Management Field Manual, HBA Weed Management Plan, Seven Mile Beach Conservation Area Management Plan, Waste Management Strategy, Carbon Management Plan, Climate Change Adaptation Plan.
- Monitoring programs i.e. surface water, groundwater, threatened species, vegetation communities, weeds.

- Information within investigation reports.
- Preliminary Site Investigations (PSIs).
- Detailed Site Investigations (DSIs).
- Details of remedial/rehabilitation plans for areas on airport land where applicable.
- Site Management Procedures.
- Registers i.e. Asbestos register, stockpile register, ozone depleting substances register, contaminated sites register, Environmental Aspects and Impacts register, environmental compliance register.
- Details of the nature, date and place of any occurrence of environmental significance.
- Details of any discoveries made during investigations or routine procedures on matters that affect the environment i.e. asbestos sites, areas for further investigation etc.

4.1 Monitoring by Hobart Airport

Routine environmental monitoring is undertaken at the airport by HBA and sub-lessees. Monitoring that has been undertaken by HBA includes:

- Surface water monitoring at locations (HIA01, HIA03A, HIA04, HIA06, HIA07 and HIA09) HIA04 rarely contains water. The AEO has approved the change in monitoring frequency of this site to one sample per year, when water is present. When HIA04 is dry and there is standing water in HIA04A (new drainage line from northern runway extension area), then sampling will be undertaken at this site.
- Twice yearly groundwater monitoring of five groundwater bores around the perimeter of the airport (HA19, HA20, HA21, HA22 and HA23) is undertaken. Monitoring events are timed to ensure that summer and winter groundwater levels are obtained. This information will inform contaminant movement and groundwater levels under seasonal influences.

Surface water monitoring locations are summarised in **Table 2** and illustrated in **Figure 19**. Note that the winter GME was revised in scope to include HA23 only and no surface water was monitored in March 2020 due to the Covid-19 pandemic.

Table 2 Surface water sampling locations

Sampling Site	Physical location
HIA01A	Upstream at the airport property boundary in open drains (Sinclair Creek catchment)
HIA03A	Downstream drainage channel on estuary of Sinclair Creek catchment at security fence
HIA04	Stormwater swale draining to Barilla Bay, northern boundary
HIA04A	Stormwater drainage line extending from the northern runway extension area
HIA06	Stormwater drain off Gatty Street and buildings complex
HIA07	Stormwater drain from passenger terminal, central area and WWTP discharge point
HIA09	Sinclair Creek confluence with Pittwater at Five Mile Beach

Figure 19 Surface water monitoring locations

Surface Water

Surface water monitoring events were undertaken in September 2019 and 2020 by the HBA Environment Manager. The sampling event in March 2020 was cancelled due to the Covid-19

pandemic and low risk environment due to limited flights. All parameters are analysed by a NATA accredited laboratory and include the following:

- Nutrients
- Faecal coliforms and *E.coli*
- Heavy metals and hydrocarbons
- Total suspended solids
- In-field measurements which include Dissolved Oxygen (DO), conductivity, temperature and pH.

The results of each surface water monitoring event are compared against limits indicated in Schedule 2 of the *Airports (Environment Protection) Regulation* 1997, and the trigger values for toxicants of the ANZECC Guidelines for Fresh and Marine Water Quality (2000). All PFAS results are compared against the limits provided in the *PFAS National Environmental Management Plan V02*.

Groundwater

Consultants were engaged by HBA to undertake the Groundwater Monitoring Event (GME) of the perimeter bores in January and July 2020. A summary of the groundwater assessments is provided below, noting that the July GME targeted HA23 only.

Asbestos

The Asbestos Register is a working document that is reviewed and updated regularly, particularly as work is undertaken around the airport site in buildings/structures that contain asbestos related material. An assessment on buildings and infrastructure that contain asbestos was undertaken in June 2015. A review of the register is undertaken annually.

Any asbestos removal is undertaken by a licensed contractor and all works are approved by the Airport Building Controller, in accordance with the *Airports (Building Control) Regulations 1996.*

4.2 Monitoring by Sub-Lessees

Routine monitoring by sub-lessees is undertaken for the following:

- Routine monitoring of effluent from the Cambridge Wastewater Treatment Plant, reported by TasWater.

- Annual groundwater monitoring is undertaken by Airservices Australia from bores located at the fire training ground and Airservices building. Reports are provided to the AEO and the HBA Environment Manager.
- Airservices Australia undertake a Groundwater and Surface Water monitoring program that meets Airservices' environmental and site management obligations associated PFAS contamination and other firefighting activity related impacts. The plan includes an increase in monitoring sites and frequency for both surface water and stormwater, and a continuation of groundwater monitoring from existing wells.
- Annual groundwater monitoring of three groundwater bores located at the BP Bulk Fuel Depot and reported by Air BP.
- Annual surface water monitoring of the Air BP stormwater treatment system by Air BP.

Additional monitoring may be required by tenants because of construction or operational activities. Similarly, if monitoring is requested, all reports are provided to the HBA Environment Manager and AEO for review.

TasWater Wastewater Treatment Plant (WWTP)

The Cambridge Wastewater Treatment Plant is operated by TasWater and is located on the south eastern side of the airport (Figure 23). The WWTP is regulated by an Environment Protection Notice (EPN) No. 7447/2 which outlines the environmental conditions and limits in which the plant must operate. The conditions are set by the Tasmanian Environment Protection Authority (EPA).

Figure 20 Cambridge Wastewater Treatment Plant location

Source: www.thelist.tas.gov.au

An annual report is prepared by TasWater and summarises the performance of the WWTP. The report is submitted to the EPA for review.

Groundwater and Surface water Monitoring

Airservices Australia's Aviation Rescue and Fire Fighting (ARFF) service operate and manage the firefighting facilities at the airport. The current year's Airservices Australia Groundwater and Surface water Monitoring Event was undertaken on 10-12 August 2020. The event included monitoring bores from both the Hot Fire Training Ground (HFTG) and the Main Fire Station (MFS) at Hobart Airport, comprising 11 groundwater locations, and seven surface water locations.

Groundwater Bores at AirBP Bulk Fuel Depot

AirBP Australia Pty Ltd (BP) undertakes annual groundwater monitoring at the bulk fuel storage and refueling area located airside. A groundwater monitoring event was undertaken on 22 April 2020 to gauge and sample the 2 groundwater monitoring wells.

Air BP Stormwater Treatment System

BP undertakes monthly surface water sampling at discharge points of the stormwater treatment system. SW1 was sampled on 30 May 2019. All parameters listed below were within the AEPR accepted limits of contamination for water (Part 11, Schedule 2):

- Total suspended solids
- Total BTEX
- TPH C6-C9, C10-14, C15-C28, C29-C36

Air BP NPI Reporting

Air BP submits a National Pollutant Inventory (NPI) Report on an annual basis via the NPI online reporting system. The 2019-2020 report provides information on any increase or decrease in emissions when compared to previous reporting years.

BP Hobart Airport Service Station GME

An annual GME was undertaken in wells at this site on 21 April 2020. The GME was completed in accordance with BP's Standard Operating Procedure and all samples were analysed by a NATA accredited laboratory for Total Petroleum Hydrocarbons (TPH), Total Recoverable Hydrocarbons (TRH), Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) and Naphthalene.

4.3 Remedial Plans

No remedial plans are required or have been developed for any area of airport land at the time of reporting.

4.4 Additional Environmental Initiatives

Additional environmental initiatives undertaken during the reporting period are summarised within the above sections of this report. They include:

- The Climate Adaptation Plan
- Expansion of the Watch Out for Wildlife Campaign
- Implementation of E-Water as the primary cleaning product in the Terminal
- Virtual Wildlife Fence monitoring outcomes

- Diversion of airline magazine waste from Biosecurity waste streams.

4.5 Occurrences of Environmental Significance

There were no occurrences of environmental significance documented during the 2019-2020 reporting period that have not already been addressed within this report.

4.6 Cultural Discoveries

There were no discoveries of Aboriginal cultural heritage or historic heritage during the 2019-2020 reporting period. The requirement for an Unanticipated Recovery Plan remains in areas where cultural artefacts are known to exist.

5. Progress against Environmental Commitments in the AES

Environmental commitments are outlined within Environment Chapter 13 of the current Master Plan 2015-2020). Environmental commitments are defined as Environmental Management Framework Commitments and Environmental Value Commitments. Each commitment is linked to the Hobart Airport Policy Objectives.

Each commitment is colour coded for easy identification as to the commitments achieved, those commitments that are routine and therefore addressed as required, and those that are continuous and require ongoing action.

A total of 53 environmental objectives and targets are identified in Chapter 13 of the Master Plan within the Environment Chapter. These achievements are reflected in the number of commitments met, and those that remain routine and ongoing. Routine and ongoing commitments are achieved as a matter of course should the need arise. Of the 53 commitments identified, all have been achieved within the strategy period.

	Commitments Achieved	48
	Routine (as required)	3
	Continuous (ongoing)	2
	To be completed	0

6. Enduring Environment Pollution Problems

Enduring environmental issues are discussed in Section 4.2.

7. Incidents of Pollution and Contraventions of the Regulations

There have been no incidents of pollution or contravention of the Airport regulations during the 2019-2020 reporting period.