PRELIMINARY DRAFT

ESSENDON AIRPORT ENVIRONMENT STRATEGY 2010 - 2014

ESSENDON AIRPORT PTY LTD

Essendon Airport Pty Ltd
Level 2, 7 English Street
Essendon Fields 3041
Victoria, Australia

Essendon Airport
Environment Strategy

2010-2014

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ESSENDON
AIRPORT
PTY LTD

FOREWORD

For many years, environmental management programs have been in place at Essendon Airport.

These programs have been designed to manage the Airport's 305 hectare site whilst also minimising the Airport's impact on the surrounding environment.

The development of this 5 year Environment Strategy, in accordance with the Commonwealth *Airports Act 1996*, is further evidence of this continued commitment. It updates and replaces the existing Environment Strategy which was last approved on 18 January 2005.

This Environment Strategy contains objectives and initiatives to protect the Airport's environment and builds upon the Airport's existing environment management framework.

Essendon Airport Pty Ltd is pleased to present this document as its Environment Strategy which will be in place during 2010 - 2014.

Mark Maskiell
Chief Executive Officer
Essendon Airport Pty Ltd

INVITATION TO COMMENT
ON THE
AIRPORT ENVIRONMENT STRATEGY

Under the requirements of the *Airport Act 1996* the Preliminary Draft Airport Environment Strategy (AES) must be released for public comment for a period of 60 business days, prior to finalisation as a draft AES and submission to the Minister for Infrastructure, Transport, Regional Development and Local Government for approval.

The public comment period for this AES for Essendon Airport will extend from 25th September 2009 to 18th December 2009. Written comments on any aspect of the AES are encouraged during the exhibition period, and can be forwarded to:

Chief Executive Officer
Essendon Airport
Level 2, 7 English Street
Essendon Fields 3041
Fax: 9379 7867
enquiries@essport.com.au

Please note that all tendered submissions may be presented in a public forum.

ESSENDON AIRPORT ENVIRONMENT POLICY

Essendon Airport recognises the importance of maintaining and enhancing the environment for the benefit of all Australians, present and future.

In developing and managing the Airport, Essendon Airport Pty Ltd will:

- Identify and manage the significant environmental impacts on the Airport;
- Comply with relevant environmental legislation and regulations;
- Continually measure, monitor, report and improve upon the environmental performance defined by our objectives and targets;
- Ensure persons responsible for the implementation of Environmental Strategies are provided with the necessary training to fulfil the strategy's objectives, and;
- Promote EAPL's commitment to the environment, to our employees, tenants and customers.

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ABBREVIATIONS

ASA	Airservices Australia
ABC	Airport Building Controller
AEO	Airport Environment Officer
AER	Airport Environment Report
AES	Airport Environment Strategy
AHD	Australian Height Datum
Airports Regulations	Airports (Environment Protection) Regulations 1997
ALC	Airport-lessee company
DITRDLG	Department of Infrastructure, Transport, Regional Development and Local Government
DEWHA	Department of the Environment, Water, Heritage and the Arts
EAPL	Essendon Airport Pty Ltd
EMP	Environmental Management Plan
EPA	Victorian Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
MDP	Major Development Plan
NPI	National Pollutant Inventory
The Act	Airports Act 1996
UPSS	Underground Petroleum Storage System

GLOSSARY

Aircraft	A machine or craft that can derive support in the atmosphere from the reactions of the air.
Airline	A person who carries on a commercial air transport enterprise that involves offering or operating scheduled or chartered air services.
Airport Environment Officer	A person appointed under regulation 10.01 of the *Airports (Environment Protection) Regulations 1997*.
Airport lease	A lease of the whole or a part of the airport, where the Commonwealth is the lessor.
Airport-lessee company	A company that holds an airport lease.
Airservices Australia	A government business enterprise responsible for providing Australia's aviation industry with a range of aviation related operational services.
Airside	The part of the airport grounds, and the part of the airport buildings, to which the non-travelling public does not have free access.
Apron	A defined area of land at an aerodrome intended to accommodate aircraft for the purpose of loading and unloading passengers, mail or cargo, fuelling, parking or maintenance.
Engine Run-up	The operation of an aircraft engine in preparation for flight (safety requirement).
Ground Running	The operation of an aircraft engine for maintenance or testing. Ground running does not include engine operation associated with engine run-up, flight, when landing, taking off, or taxiing at the airport.
Department of Infrastructure, Transport, Regional Development and Local Government (DITRDLG)	A Commonwealth department that provides policy advice, programs and regulation across a wide range of areas including: •Infrastructure •Transport safety and security •Aviation and airports •Maritime •Regional Development •Local Government.
Department of the Environment, Water, Heritage and the Arts (DEWHA)	The Commonwealth department responsible for the administration of the Environment Protection and Biodiversity Conservation Act 1999.
General aviation	All civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire.
Landside	The part of the airport grounds, and the part of the airport buildings, to which the non-travelling public has free access.
Runway	A defined rectangular area of land, prepared for the take-off and landing of aircraft along its length.

1. INTRODUCTION

This Airport Environment Strategy (AES) outlines the environmental objectives and the environmental management framework of Essendon Airport. This AES will apply for a period of five years from approval by the Minister for Infrastructure, Transport, Regional Development and Local Government (DITRDLG).

The AES has been prepared in accordance with the *Airports Act 1996* and sets out the framework for the environmental management of Essendon Airport.

This AES updates and replaces the previous AES, which was in place during the period 2004 - 2009.

Essendon Airport Pty Ltd (EAPL) is responsible for the preparation of the AES in accordance with the *Airports Act 1996* and associated Regulations.

This AES will be available for download from the EAPL website.

Essendon Airport

Essendon Airport comprises 305 hectares and is located approximately 10 kilometres northwest of the Melbourne Central Business District (CBD) and 7 kilometres southeast of Melbourne Airport. The Airport is primarily used for general aviation and non-aviation purposes.

Essendon Airport was established as an aerodrome in 1919 and was officially designated an international airport in 1950. The existing terminal building was constructed in 1959.

Essendon Airport was Melbourne's International and Domestic Airport until the early 1970s, when Melbourne Airport opened in Tullamarine.

EAPL was granted a 50 year lease with a 49 year option in 1998. EAPL is owned by Linfox and Beck Corporation.

Today, Essendon Airport operates as a general aviation airport with a mixture of property development, commercial and industrial activities.

2. BACKGROUND

2.1 AIRPORT LEASE

Essendon Airport Pty Ltd (EAPL) is the lessee of the Essendon Airport site, and is referred to as the Airport Lessee Company (ALC).

The Commonwealth retains ownership of the property.

The ALC must provide for the use of the airport site as an airport and for access to the airport by interstate and intrastate air transport. The lease also requires that:

'Throughout the term the Lessee must develop the airport site at its own cost and expense having regard to:

a) *the actual and anticipated future growth in, and patterns of, traffic demand for the airport site;*
b) *the quality standards reasonably expected of such an airport in Australia; and*
c) *Good Business Practice.'*

The ALC must also prepare a Master Plan and an AES.

The current Essendon Airport Master Plan (2008) was approved by the Minister for Department of Infrastructure, Transport, Regional Development, and Local Government in October 2008. The Master Plan sets out a broad framework for the development of the Airport for the next 20 years.

2.2 LEGISLATIVE CONTEXT

In September 1996, the Federal Parliament passed the *Airports Act 1996* and subsequently the *Airports (Environment Protection) Regulations 1997*, to govern the development and operations of Federal Airports leased to private organisations. The Act and the Airports Regulations establish a system of regulation to promote awareness of environmental issues and to ensure that appropriate systems are in place to manage pollution, noise and other environmental impacts generated by operations at airports.

The *Airports (Environment Protection) Regulations 1997* set the standards for environmental pollution in relation to air, water and soil quality and noise emissions, authorise the monitoring and remediation of breaches of environmental standards, and support better environmental outcomes on leased Commonwealth airports.

The *Airports Act 1996* requires each airport to have an AES outlining the environmental management strategies and actions for operations at the Airport.

The AES is in force for 5 years from the date of its approval, after which a new AES is prepared and submitted to the Minister.

Division 2, Section 116(2) of the *Airports Act 1996* states that the AES "*must specify*:

a) *the Airport-lessee company's objectives for the environmental management of the airport;*
b) *the areas, if any, within the airport site which the airport-lessee company, in consultation with State or Territory or Federal conservation bodies, identifies are environmentally significant;*
c) *the sources of environmental impact associated with airport operations;*
d) *the studies, reviews and monitoring to be carried out by the airport-lessee company in connection with the environmental impact associated with airport operations;*
e) *the time frames for completion of those studies and reviews and for reporting on that monitoring;*
f) *the specific measures to be carried out by the airport-lessee company*

for the purposes of preventing, controlling or reducing the environmental impact associated with airport operations;

g) *the time frames for completion of those specific measures;*
h) *details of the consultations undertaken in preparing the strategy (including the outcome of the consultations; and*
j) *such other matters, if any, as are specified in the regulations.*"

Section 116 (2) (j) of the Act is discussed in detail in Part 3, Division 2 of the *Airports (Environment Protection) Regulations 1997*. Matters that must be specified in the AES include:

- *"Sites of indigenous significance*

For paragraphs 116 (2) (j) and (3) (j) of the Act, a matter that must be specified in an environment strategy is any area, within the airport site to which the strategy applies, that the airport-lessee company for the airport has identified as being a site of indigenous significance, following consultation with:

a) *any relevant indigenous communities and organisations; and*
b) *any relevant Commonwealth or State body."*

- *Operations other than airport operations*

(1) For paragraphs 116 (2) (j) and (3) (j) of the Act, a matter that must be specified in an environment strategy is the airport--lessee company's strategy for environmental management of areas of the airport site that are, or could be, used for a purpose that is not connected, or directly connected, with airport operations.

(2) In specifying the matter mentioned in subregulation (1) (above)*, the environment strategy must address the things mentioned in Division 3 of this Part.*

- *Environment management training*

For paragraphs 116 (2) (j) and (3) (j) of the Act, matters that must be specified in an environment strategy are:

(a) the training necessary for appropriate environment management by persons employed on the airport site by the airport-lessee company or by other major employers, or classes of persons so employed; and

(b) any formal training programs, of which the airport-lessee company is aware, that it considers would meet the training needs of a person mentioned in paragraph (a)."

The Airports Regulations do not apply to pollution generated by aircraft, nor to noise generated by aircraft in flight, landing, taking off or taxiing at the airport. The Commonwealth regulates any pollution caused by aircraft engines under the *Air Navigation (Aircraft Engine Emissions) Regulations* and the noise caused by aircraft operations under the *Air Navigation (Aircraft Noise) Regulations*. However, the noise from ground running of aircraft engines and auxiliary power units are covered by the Airports Regulations and details of management are discussed within this strategy.

Other Commonwealth laws that apply to the Essendon Airport site include:

- *Environmental Protection and Biodiversity Conservation Act 1999*; and
- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*.

These Commonwealth laws protect endangered species, national heritage and matters of indigenous heritage at Essendon Airport.

Where there is no Commonwealth legislation, State laws are applicable. These include laws related to waste management, motor vehicle pollution, the storage of certain chemicals and occupational health and safety apply.

2.3 ENVIRONMENT STRATEGY

This AES will update and replace the 2005 - 2009 AES.

The AES sets out the management approach to monitor, report and prevent or minimise adverse environmental impacts. It also sets a framework for management through the implementation of procedures and action plans.

The AES outlines the operation and management of the following areas:

- air quality;
- noise;
- water quality, including stormwater and groundwater;
- soil quality;
- waste management;
- dangerous goods and hazardous substances;
- resource use;
- flora and fauna; and
- heritage and native title.

An AES is not required to address aircraft related noise or emissions during flight, take off, landing or taxiing.

2000 – 2004 Environment Strategy

The 2000 - 2004 AES was approved by the Commonwealth Minister for Transport and Regional Services on 1st November 1999. The 2000 - 2004 AES was written prior to the current operators of Essendon Airport taking responsibility for the Airport.

2005 – 2009 Environment Strategy

The 2005 - 2009 AES was approved by the Commonwealth Minister for Transport and Regional Services on 18th January 2005.

2.4 CONSULTATION

Consultation with the community is important for an airport and its ongoing operations.

EAPL meets regularly with the AEO to discuss environmental issues at the airport. In addition to these meetings, EAPL consults the AEO in any environmental issues that arise at the airport.

The tenant audits conducted by EAPL and the AEO are used as a venue for feedback from tenants, and informing tenants of current issues on the site.

The Preliminary Draft AES is subject to a 60 business day public comment process prior to submission to the Minister. EAPL will have due regard to all comments received in writing on the Preliminary Draft Environmental Strategy document before it submits to the Minister.

3. EXISTING ENVIRONMENT

3.1 LOCATION

Essendon Airport is located approximately 10 kilometres northwest of the Melbourne Central Business District (CBD) and 7 kilometres southeast of Melbourne Airport (refer Figure 1).

Essendon Airport is bounded by the suburbs of Airport West, Strathmore Heights, Strathmore and Essendon North. The Tullamarine Freeway runs along the southern and western boundary of the Airport. Moonee Ponds Creek flows north-south to the north-east of the airport, Steele Creek, located to the southwest of the airport, flows southeast into the Maribyrnong River (south of the Airport).

The surrounding land use is comprised of business, industrial, residential and public parks and recreation.

3.2 SITE FACILITIES

3.2.1 Airside Facilities

The existing facilities include:

- Runways including 08/26 which runs east / west and is 1,921 m long by 45 m wide, and a secondary runway 17/35 which runs north / south and is 1,503 m long by 45 m wide;
- A network of flexible and concrete taxiways which provides access between the runways and the aprons;
- An apron area of approximately 165,000 square metres; and
- Navigation aids including a Non-Directional Beacon (NDB), an Instrument Landing System (ILS) and a twin locator approach located at the north of the airport.

3.2.2 Landside Facilities

Landside facilities include:

- The Terminal building is approximately 5,910 square metres in area and was constructed when Essendon Airport was the main domestic and international airport for Melbourne (currently the building is largely used for non-terminal purposes);
- 145 other Airport buildings, with approximately 120 tenants which employ some 3100 people;
- commercial buildings used for offices, warehouses, retail, and storage;
- a Control Tower located to the north of the main terminal building;
- roads and car parking areas;
- outdoor advertising billboard signs; and
- telecommunication towers.

3.3 AIRPORT OPERATIONS

Since 1971, Essendon Airport has operated as a general aviation airport. In this role, Essendon Airport currently provides:

- Airport services and facilities to corporate and business aircraft;
- A facility for small to medium freight operations;
- A base for air services to regional Victoria and Tasmania;
- A base for emergency service providers such as the Air Ambulance and the Victorian Police Air Wing;
- An advanced training base for domestic and international aviation training organisations;
- A base for charter operations;
- A base for recreational flyers and light aircraft owners;
- A base for third party maintenance and overhaul operations for fixed wing aircraft and helicopters;
- An ILS and NDB; and
- Controlled air space.

3.4 CLIMATE

Essendon Airport has a temperate climate with temperatures ranging from 5 to 26^0C on average. The wettest months are July to November.

3.5 GEOLOGY AND HYDROGEOLOGY

Essendon Airport is located on the Quaternary aged Newer Volcanics, which are comprised of fresh to weathered basalts. The Newer Volcanics basalts extend across southwestern Victoria from Melbourne to the South Australian border.

The basalts beneath the airport extend to approximately 30 metres below ground level. The Newer Volcanics overlie the Brighton Group, which is comprised of marine to terrestrial, variably iron-stained and cemented sandy sediments. The Brighton Group is divided into the Black Rock Sandstone (fine to medium grained sandstones with abundant ferruginous cement) and an undifferentiated uniform to poorly bedded, red-brown silts, sandy silts and clayey silts and occasional gravel bands (exposed in sections to the west of the Maribyrnong River).

The Brighton Group sediments unconformably overlie the Fyansford Formation, which are comprised of grey-green clayey silts, clays and marls.

The Fyansford Formation unconformably overlies the Older Volcanics, consisting of basalt and pyroclastics (minor tuffs and ash deposits).

The Older Volcanics in the Melbourne area overlie Silurian aged, marine sandstones, siltstones and minor conglomerates. (Sunbury, 1: 63 360 Geology Map).

Groundwater is located between 23 to 29 metres below the surface level. The groundwater is located within the Newer Volcanics basalts. The groundwater quality is saline.

Under the State Environment Protection Policy (Groundwaters of Victoria), a beneficial use of an aquifer is protected if it falls within the indicated segment. A segment is defined on the basis of

background total dissolved solids. The beneficial uses of the aquifer beneath the site include stock watering, industrial use, ecosystem protection and buildings and structures.

3.6 LAND FEATURES

Generally, the majority of the airport is flat with the exception of the grade differential between sections of the Tullamarine Freeway and the Airport and the northern section of the airport that slopes down towards Boeing Reserve and Moonee Ponds Creek, and the adjoining residential area.

The western edge of the Airport contains the Airport Terminal, a number of warehouses, offices and industries, both aviation and non-aviation related.

The eastern portion of Bulla Road Precinct (located along the southern boundary of the airport) which was subject to a MDP at the time of preparing the 2004 - 2009 AES has been redeveloped into a commercial area containing retail outlets.

The Wirraway North Precinct and Beaufort North Precinct has been redeveloped and now includes an access road connecting Wirraway Road to Matthews Avenue and the Tullamarine Freeway.

The English Street Precinct has undergone gradual transformation both by construction of new buildings, and refurbishment of existing buildings.

The Aviation Precinct now includes an additional four hangars on the Southern Apron.

Melbourne Water has 5 water tanks located along the eastern perimeter of the airport. Boeing Reserve is located to the north-east of the airport, adjacent to Moonee Ponds Creek. Westfield Shoppingtown is located to the north-west of the airport, on the western side of the Tullamarine Freeway.

3.7 FLORA AND FAUNA

Surveys of flora and fauna at Essendon Airport have been conducted in 1998, 2004, and 2007. The reports concluded at the time that Essendon Airport is an area of low biological value.

Key survey findings were:

- 122 vascular plant species were recorded at Essendon Airport of which 83% were exotic.
- At least 54 (9 exotic) bird species, 12 (7 exotic) mammal species, 2 frog species and 2 reptile species were recorded around Essendon Airport and Moonee Ponds Creek.
- The vegetation present at the airport is highly degraded and contains very few indigenous species;
- Some portions of the study area have high cover of Wallaby Grass (*Austrodanthonia*) however exotic invasion has degraded the structure and diversity of these original flora relics.
- The main fauna habitat areas are exotic grasslands, tree plantings and debris / dirt piles which are all highly modified degraded habitats.
- The airport has few habitat resources for shelter, foraging or breeding.
- Species at the airport are likely to be utilising limited resources, in conjunction with usage of multiple resources away from the airport.
- The probability of the study area containing species of state or national significance is negligible.

3.8 HERITAGE

Essendon Airport was originally one of Australia's major airports and from 1921 to 1971, was Australia's second International airport. During the Second World War, it was used for the manufacturing of aircraft.

Airlines that have used Essendon Airport as a base include:

- Ansett Airlines Ltd, from 1937 to 1970s;
- Holyman Company as Tasmanian Aerial Services, which later merged with Adelaide Airways to form Australian National Airways, and finally merged with Ansett in the 1950s; and
- Trans Australia Airways, renamed Australian Airlines before merging with Qantas.

3.8.1 Indigenous Cultural Heritage

Consultation was carried out with Aboriginal Affairs Victoria during preparation of the 2000 AES. This correspondence states that "*Given the previously disturbed nature of the land and the absence of any remnant native vegetation or archaeologically sensitive landforms, the likelihood for any proposed works to impact upon Aboriginal cultural materials is considered to be low. On this basis, no further archaeological investigation is considered necessary at this stage*."

However, in the event that any aboriginal archaeological material were uncovered during works, Aboriginal Affairs Victoria have provided recommendations for procedures to be followed. These procedures were included in the 2000 AES and are quoted below.

> *"In the event that Aboriginal Archaeological material is uncovered during development or future land management works, it is recommended that the following procedures be noted in the Essendon Airport Environment Strategy to ensure that the archaeological material is dealt with appropriately:*
>
> 1. *Development / land management works must cease immediately upon the discovery of any Aboriginal cultural*

material, and Aboriginal Affairs Victoria shall be immediately notified of any such discovery.

2. *Development / land management works on the subject land shall cease immediately upon the discovery of any suspected human remains. The Police or State Coroner's Office must be informed of the discovery without delay. If there are reasonable grounds to suspect that the remains are Aboriginal, the discovery should also be reported to Aboriginal Affairs Victoria."*

3.8.2 Non-Indigenous Cultural Heritage

Essendon Airport is registered on the Register of National Estate.

Godden Mackay Logan, Heritage Consultants, prepared a Heritage Management Strategy for the Essendon Airport site in 2006. The Heritage Management Strategy is to be read and applied in conjunction to this AES.

3.9 ENVIRONMENTALLY SIGNIFICANT AND SENSITIVE SITES

There are no environmentally significant or sensitive sites within the Essendon Airport boundaries that have been identified by survey other than sites with Commonwealth Heritage values identified in the Heritage Management Strategy.

4. ENVIRONMENTAL MANAGEMENT

The responsibilities of the various parties involved in managing environmental and other issues at Essendon Airport are summarised below:

- **Essendon Airport Pty Ltd (EAPL)**. EAPL is the airport-lessee company (ALC) and as such is responsible for the management and planning of most airside and landside facilities at Essendon Airport. EAPL is also responsible for the environmental management of the airport, including ground-based air and noise emissions.
- **Airservices Australia (ASA)**. ASA is responsible for air traffic control, aviation rescue and fire fighting, flight path management and aircraft overflight noise and air pollution.
- **Department of Infrastructure, Transport, Regional Development and Local Government (DITRDLG).** DITRDLG is responsible for enforcing the Airports Act and the Commonwealth Government's aviation policy. In addition they are also responsible for any international agreements and airspace environment management (including aircraft air emissions). DITRDLG monitors the environmental performance of airports via AEO reports and the Annual Environmental Reports.
- **Department of the Environment, Water, Heritage and the Arts (DEWHA)** is responsible for the administration and regulation of the EPBC Act, and heritage legislation on Essendon Airport.
- **Airport Environmental Officer (AEO)**. The AEO is appointed by DITRDLG and is responsible for regulating environmental issues at Essendon Airport. The AEO is involved in regular meetings with EAPL and conducts site inspections and facility audits.
- **Airport Building Controller (ABC)**. The ABC is also appointed by DITRDLG and is responsible for ensuring that activities at Essendon Airport meet the appropriate building and engineering standards.
- **Essendon Airport Tenants**. The tenants of Essendon Airport have a responsibility to assist Essendon Airport in achieving its environmental objectives, and therefore to avoid polluting. Tenants must conduct their activities in an environmentally responsible manner, complying with the environmental legislation and the AES.

4.1 PLANNING

In order to implement the Environmental Policy, EAPL has identified the potential environmental impacts of activities conducted at the airport and set objectives and targets for managing impacts (refer section 6.0). The environmental management actions for achieving the objectives and targets are also detailed in section 6.0.

4.2 TRAINING

Ongoing training is provided by EAPL staff to ensure that they have the resources to efficiently fulfil the requirements of their responsibilities. EAPL requires their sub-contractors to also ensure that they are current with their training, and their staff has the required qualifications for their roles.

Project management of environmental works is undertaken by senior environmental engineers / scientists familiar with airport legislation, contamination issues and general environmental issues.

Training will be undertaken by a person who possesses a Certificate IV in Workplace Training & Assessment, or a person who holds an Australian Qualifications Framework (AQF) certification in the field they will be teaching, or by a person who is recognised as an expert in the field to be taught.

EAPL will continue to train staff to ensure that they have the environment management skills to efficiently fulfil their responsibilities.

4.3 AUDITING

To ensure that operations occurring at the airport are complying with legislative requirements and the commitments of EAPL, auditing is conducted of both tenants' and EAPL's activities.

4.4 REPORTING

EAPL is required to submit an Annual Environment Report (AER) to DITRDLG. The AER details the environmental issues on the airport having regard to the AES. The AER includes amoungst other things:

- details of the occurrences of environmental significance (detrimental or beneficial);
- details of EAPL's performance in achieving the policies and targets of the AES.
- details of EAPL's progressive management of enduring pollution problems at the airport; and
- provides a report of incidents of pollution and other contraventions, if any, of the Regulations that have occurred during the year.

5. 2010 - 2014 ENVIRONMENT STRATEGY

During the preparation of the AES for 2010 - 2014 the proposed actions of the 2005 – 2009 AES were reviewed as to their current status. Ongoing actions have been included in the 2010 – 2014 AES. Incomplete actions have been reconsidered in comparison with the current condition of the airport, and either included as an action or have been superseded by a new action.

Achievements under the 2005 – 2009 Environment Strategy

Air Quality

- Essendon Airport has not exceeded Ambient Air Quality targets of the Airport Regulations or SEPP.
- Maintenance of fleet vehicles to ensure emissions are minimised.
- Developments works were undertaken so as to minimise dust generation.
- Essendon Airport's sole listing on the National Pollutants Inventory is correctly listed on the registry.
- New developments have incorporated design ideas and equipment which minimises greenhouse gas pollutant emissions (eg, Essendon Fields House and Linfox Logistics Head Office).

Noise

- Essendon Airport has complied with legislative requirements with regards to the generation of noise.
- Essendon Airport facilitated a Minister initiated series of Working Group meetings in 2009 which comprised representatives from the Community and Commonwealth Government Departments to discuss and report back to the Minister for Infrastructure, Transport, Regional Development and Local Government on noise issues at and surrounding Essendon Airport.

Water Quality

- Essendon Airport has implemented urban sensitive water design principles in areas which have undergone development. Stormwater for some new and redeveloped buildings are discharged through bio-retention swales prior to release.
- Essendon Airport has continued to sample storm water discharge from the site with the results reported to the AEO.
- Essendon Airport maintains a dedicated aircraft washing bay.

Groundwater
- Implementation of the annual ground monitoring program.

Soil Quality
- No soil contamination events have occurred at the Airport in this period.
- The installation of water sensitive urban design drainage systems.

Environmental Management System
- Ongoing training and consultation has raised awareness of environmental issues throughout the Airport's tenants and operators.

Consultation
- Consultation with tenants and operators was a key focus of projects undertaken at Essendon Airport. This has resulted in an increased awareness of environmental issues amongst airport staff, tenants and operators.

Planning
- The Essendon Airport Master Plan was approved in October 2008.

Natural Resource Use
- Rejuvenation of existing old building structure and materials (Everett Centre and Building 83).
- Repair works undertaken to improve water mains network (leak repairs).
- Installation of a PAALC controlled lighting system (allows runway lighting system to be placed on standby during the night (off) – reduced power consumption and therefore a reduction in greenhouse gas emissions).
- Reduced runway paint usage by 40% by moving to automatic application of runway paint instead of manual application.

Dangerous Goods
- Storage and handling of dangerous and hazardous goods was as per State guidelines.

Flora, fauna and habitat
- The airport grounds are progressively being upgraded with water efficient and low maintenance landscaping.
- Continued management of noxious weeds around airport boundaries.

Heritage
- Development of a Heritage Management Strategy for the Airport.
- Successful redevelopment of heritage buildings (Buildings 20 and 83).

Support of the Community
- The Airport participated in a number of community activities and provided numerous donations to various community based organisations and events.

6. STRATEGY OBJECTIVES, TARGETS AND ACTIONS

The following sections outline the environmental management objectives, targets and actions that are to be implemented as part of this AES for 2010-2014.

6.1 ENVIRONMENTAL MANAGEMENT SYSTEM

EAPL incorporates environmental management principles within its business practices to assist in achieving environmental goals.

EAPL will manage the environment using systems appropriate to its scale of operations which is consistent with relevant Australian and International Standards.

To ensure that all aspects of operations occurring at the airport are complying with legislative requirements, and the commitments of EAPL, audits are conducted by the AEO of both tenants and EAPL's activities.

Annual Environmental Report

EAPL is required to submit an Annual Environment Report (AER) to DITRDLG. The AER details the environmental issues on the airport and reports on the progress of the AES. The AER includes:

- details of occurrences of environmental significance (detrimental or beneficial);
- details of EAPL's performance in achieving the policies and targets of the AES;
- details of EAPL's progressive management of enduring pollution problems at the airport; and
- report of incidents of pollution and other contraventions, if any, of the Regulations that have occurred during the year.

Objectives

EAPL will manage the environment using systems appropriate to its scale of operations which is consistent with relevant Australian and International Standards.

Environmental Management System		
Issues	Proposed Activity	Responsibility for achieving
Development of systems	Develop systems appropriate to EAPLs scale of operations	EAPL – by end of strategy period.
Disclosure of environmental issues to landowner.	EAPL will report to the AEO on all environmental matters on the airport.	EAPL
Compliance by EAPL tenants and premises.	Targeted tenant audits will be conducted on an annual basis by a representative of EAPL. The audits consider the work practices, storage and handling of goods, waste management and procedures in place to manage emergencies e.g. spills etc.	EAPL - Risk based audit program (jointly agreed by EAPL and AEO) undertaken by June 30 each year.
Implementation of best practice.	EAPL will engage appropriately qualified environmental and heritage consultants to assist with environmental and heritage matters on the airport as required.	EAPL
Environmental awareness.	EAPL will provide training for management, staff and contractors to ensure compliance with environmental objectives.	Environmental Awareness Training Induction Package to be developed and implemented by June 2010. This material will be revised biannually thereafter or following identification of a new issue.
Currency	Review of existing management plans.	Review undertaken by AEO and EAPL each June.

6.2 AIR QUALITY

The Airports Regulations do not apply to pollution generated by aircraft, and therefore air emissions from aircraft in flight, when landing, taking off or taxiing at the airport are not the responsibility of Essendon Airport. Pollutants from aircraft include hydrocarbons, nitrogen oxides and other components of combustion.

Air quality objectives in Victoria are set in the *State Environment Protection Policy (Ambient Air Quality)*. Air quality is monitored by the Environment Protection Authority and is monitored in accordance with a monitoring plan developed under the Ambient Air Quality National Environment Protection Measure. Seven common pollutants are monitored – carbon monoxide, ozone, nitrogen dioxide, sulphur dioxide, lead, particles smaller than 10 micrometre and visibility reducing particles.

The main contributors to air pollution within the Melbourne region are motor vehicle emissions, industrial sources, domestic / commercial / rural sources (mainly wood fire heating) and other mobile sources. Airport contributions to air pollutants have not been considered in the Air Monitoring Plan for Victoria.

Sources of air pollution within the airport include ground traffic (private vehicles, taxis, buses and airport service vehicles), fuel storage and refuelling operations, and dust generated during construction. Refuelling operations, fuel spillage and storage of fuel contribute to atmospheric emissions as a result of the formation and release of volatiles.

Other air emissions include spray painting, paint stripping from aircraft, painting of runway markings, construction activities and other tenant activities.

One National Pollutant Inventory facility (Mobil – fuel store) is located on Essendon Airport. The facility reports annually to the NPI and has been ranked as “low emission producing facilities”.

Objective

To ensure Essendon Airport complies with legislative requirements for emissions.

Air Quality		
Issues	Proposed Activity	Responsibility for achieving
To minimise emissions from ground based-airport operations and activities.	Undertake any EAPL spray painting operations in accordance with the *National Guidance Material for Spray Painting, 1999*, National Occupational Health and Safety Commission, and other relevant regulatory requirements.	EAPL / Tenants
Special Health Impacts	Maintain a building asbestos register.	EAPL
Greenhouse Impacts	Purchase fuel efficient vehicles and maintain as per operating manual. Incorporate as reasonably possible energy efficient design in new and refurbished building projects. Implement strategies consistent with the carbon trading legislation as enacted by the Commonwealth Government.	EAPL EAPL EAPL
Other emissions	Implement dust suppression activities on building / construction sites. IImplement the appropriate disposal of substances used by EAPL that deplete stratospheric ozone (should such substances be found in the future).	EAPL EAPL

6.3 NOISE

The Airports Regulations do not apply to noise generated by aircraft in flight, when landing, taking off or taxiing at the airport. However, noise emissions emitted from ground-based activities are subject to this AES and the *Airports Regulations*. Ground based noise sources include the ground running of aircraft, maintenance activities, vehicle traffic and construction activities.

Ground running of aircraft engines is allowed at Essendon Airport between the following hours:

- 7.00 am – 6.00 pm, Monday to Friday
- 10.00 am – 6.00 pm, Saturday and Sunday

Objectives

To minimise noise associated with airport ground operations.

To comply with legislative requirements.

Noise		
Issues	Proposed Activity	Responsibility for achieving
To minimise noise from ground based-airport operations and activities	Education of tenants as to when ground-running is allowed.	EAPL / Tenants
To minimise noise from building and construction activities	Require construction activities which avoid unnecessary noise emissions. Undertake noise generating activities during periods when background noise will assist in reducing the impact of the noise event.	EAPL EAPL
Vehicular Noise	Ensure vehicles owned by EAPL are equipped with correctly operating baffles as per manufacturers instructions.	EAPL
Noise from new developments	Ensure new developments comply with Land Use Plan requirements as specified in Master Plan.	EAPL

6.4 WATER QUALITY

6.4.1 Stormwater

Stormwater at Essendon Airport is collected via a network of underground drains that collect surface runoff from the runways, buildings, roads and other impervious areas at the airport. A swale system is progressively being installed to filter stormwater prior to leaving the site.

Moonee Valley City Council and Melbourne Water are responsible for the management of stormwater once it leaves the airport.

The range of pollutants that can effect stormwater quality include:

- Sediments;
- Nutrients e.g. nitrogen and phosphorus;
- Pathogens e.g. bacteria and viruses;
- Toxicants e.g. salts and heavy metals;
- Organic material e.g. leaves;
- Litter and other debris; and
- Flow (the volume and velocity of the water).

The main sources of stormwater pollution at Essendon Airport include:

- runoff from infrastructure (e.g. zincallum coated buildings),
- corrosion of plumbing infrastructure,
- degradation of roadways,
- fertilisers and herbicides from grassed areas,
- surfactants from cleaning processes,
- spills from refuelling,
- trace heavy metals in urban precipitation;
- construction works, and
- vehicle traffic.

Objectives

To minimise the impact of airport operations on surface water quality in and adjacent to Essendon Airport.

To reduce the number and severity of any spill on Airport.

No exceedences of Airports Regulations or SEPP (Waters of Victoria).

Water Quality		
Issues	Proposed Activity	Responsibility for achieving
Manage stormwater	Ensure that storm water discharge points on the site are appropriately maintained through inspection and maintenance. Continued to implement and maintain water sensitive urban design principles to future developments to minimise the discharge of sediment and pollutants. Undertake biannual storm water monitoring. Maintain and use aircraft wash-down bay	EAPL / Tenants EAPL EAPL EAPL / Tenant
Prevent spills / contamination	Ensure new developments are designed such as to ensure that the risk of uncontained spillage is minimised.	EAPL

	Ensure triple interceptors (or other suitable alternate) are installed as appropriate and operational where required.	EAPL / Tenant
	Audit equipment and methods used to prevent spills and contamination by tenants / EAPL.	EAPL / Tenant / AEO
	Remove disused underground tanks and undertake appropriate remediation.	Tenant
General Compliance	Ensure all EAPL controlled wastewater emissions to sewer have a Trade Waste agreement in place.	EAPL

6.4.2 Groundwater

Groundwater is located between 23 to 29 metres below the surface level within the Newer Volcanics basalts. The groundwater quality is saline. Groundwater is estimated to flow in a southerly direction towards the Maribyrnong River.

Contamination sources within the airport that may have an impact on the groundwater are related to historical land use. Historical land filling activities, leakage from underground storage tanks, spillage of fuels and chemicals and the use of chemicals such as pesticides and herbicides have all had an impact in the past years (extant pollution).

Essendon Airport has been monitoring potential sources of groundwater contamination and placing management controls where necessary.

Waste is no longer placed in landfill on airport land.

Objectives

To prevent groundwater contamination occurring from airport activities.

To manage areas of contaminated groundwater in accordance with regulatory requirements.

No exceedences of Airports Regulations.

Groundwater		
Issues	Proposed Activity	Responsibility for achieving
Manage groundwater	Maintain a network of groundwater monitoring points and sampling regime until such time as evidence supports the cessation of monitoring point (and or sampling of ground water monitoring point).	EAPL

6.5 SOIL QUALITY

Contamination sources within the airport that may have an impact on the groundwater also impact on the soil. Historical land filling activities, leakage from underground storage tanks, spillage of fuels and chemicals, and the use of chemicals such as pesticides and herbicides have all had an impact in the past years (extant pollution).

A number of soil assessments and remedial activities have been undertaken at the airport, including the removal of 6 underground storage tanks, removal of asbestos contaminated material and clean-up of soil contamination.

Known contaminated areas are kept on an Environmental Site Register, in which details of the contaminants and the remedial status of the site are kept. The Environmental Site Register is reviewed annually. The majority of contamination present at the airport is due to activities of past tenants.

A desktop study and site inspection program in consultation with tenants is used to update the Environmental Site Register and identify sites with potential contamination. Where contamination is identified, risk assessments are used to prioritise clean-up actions and plans.

The following procedure is undertaken for when a tenant's lease ends:

- AEO decides if site requires contamination investigation upon expiry of lease or change of land use.
- Letter sent to lessee to undertake assessment.
- Based on results, lessee asked to remediate to certain extent.
- Lessee to forward report on final condition of site.

Objectives

To prevent the contamination of soil from occurring from airport activities.

To manage areas of known or suspected contaminated sites according to regulatory requirements.

Soil Quality		
Issues	Proposed Activity	Responsibility for achieving
Manage soil.	Implement water sensitive urban design guidelines to minimise soil exposure in drainage lines. Implement dust controls during construction projects to minimise soil loss. Establish soil cover as soon as possible following disturbance by construction activities.	EAPL EAPL / Contractor. EAPL
UPSS Installation	Limit installation of new UPSSs. If new installed, ensures compliance with Australian Institute of Petroleum.	EAPL / Tenant

6.6 WASTE MANAGEMENT

All Essendon Airport tenants manage and dispose of their own waste.

Waste collection, treatment and disposal is subject to State legislation, namely the *Environment Protection Act 1970.*

The Industrial Waste Management Policy (IWMP) (Prescribed Industrial Waste) (2000) outlines the Victorian Government's policy on the generation, management and disposal of prescribed wastes. The main objectives of the policy are to:

- Protect human health, amenity and the environment from hazardous wastes;
- Minimise the generation of wastes;
- Eliminate as soon as practicable the disposal of prescribed wastes to landfill.

The main sources of waste within the airport include office waste, aviation workshop waste, and non-putrescible waste from retail operations.

Objectives

To implement the principles of reduce, reuse and recycle at the airport.

To minimise the volume of waste being transported to landfill.

Waste Management		
Issues	Proposed Activity	Responsibility for achieving
Asbestos waste	Ensure asbestos waste is removed by accredited persons.	EAPL / Tenant
Audit	EAPL and AEO to discuss recycling / disposal of waste products during tenant audits.	EAPL / AEO
Fire Extinguishers	Ensure EAPL fire extinguisher contents are disposed of correctly, and serviced regularly	EAPL
Hazardous Waste Register	Maintain a hazardous waste register if hazardous wastes are present on sites EAPL occupies.	EAPL
General Waste	Ensure EAPL's general wastes are disposed of correctly.	EAPL
Hazardous Waste (Prescribed)	Ensure EAPL's hazardous waste (prescribed) are disposed of correctly.	EAPL

6.7 DANGEROUS GOODS AND HAZARDOUS SUBSTANCES

The storage and handling of dangerous goods and hazardous substances is not covered by Commonwealth legislation for Airports. Therefore the relevant legislation for Essendon Airport is the *Dangerous Goods Act 1985* and the *Dangerous Goods (Storage and Handling) Regulations 2000*.

Dangerous goods and hazardous substances stored at the airport are predominantly petroleum products related to the aviation industry.

Objectives

To comply with legislative requirements.

To ensure that proper storage, transport and handling of EAPL dangerous goods and hazardous materials is undertaken.

To reduce the number of dangerous goods and hazardous materials stored at the airport.

To reduce the environmental impact following a spill event.

Dangerous Good and Hazardous Substances		
Issues	Proposed Activity	Responsibility for achieving
Compliance	Undertake annual check of the National Pollutant Inventory for airport land to determine if a change has occurred. Regular audits of site.	EAPL AEO
Spill Management	Ensure sufficient bunding beneath any EAPL containers (as per Vic EPS Publication 347).	EAPL
Dangerous and Hazardous Goods Storage Minimisation	Ensure EAPL's dangerous and hazardous goods are disposed of promptly and correctly when no longer required.	EAPL

6.8 RESOURCE USE

EAPL is committed to reducing its use of non-renewable resources such as fuels and energy derived from fossil fuels. EAPL currently use electricity provided by the local electrical provider, in all their facilities.

Improvements to the use of energy and water resources are identified within new developments, with the incorporation of water sensitive urban design initiatives and energy efficient appliances and fittings into designs.

Objectives

To minimise the use of resources across the Airport e.g. water use, energy consumption.

To encourage tenants to minimise their use of resources.

Resource Use		
Issues	Proposed Activity	Responsibility for achieving
Vehicle Selection	Select vehicles which are adequate for the task required and are efficient.	EAPL
Building Design	Consider inclusion of recycled materials within building design. Designs for new buildings to be consistent with Green Design Principles. Consider water capture and reuse within building design.	EAPL / Developer EAPL / Developer EAPL / Developer
Equipment Maintenance & Selection	Select equipment which requires less energy to operate and maintain.	EAPL / Tenant
Landscaping	Implement urban sensitive water design landscaping techniques to minimise water requirements for gardens.	EAPL / Developer

6.9 FLORA AND FAUNA

The natural environment of Essendon Airport has been highly modified since the early 1900s due to the development of this area. As a result, there are no remnant woodlands present upon the airport site.

A Flora and Fauna Study was undertaken in 1998. This study determined that there were no environmentally significant areas within the airport's grounds. Flora and Fauna assessments were also undertaken in 2004 and 2007. EAPL will continue to assess its environmental impact in accordance with EPBC Act for the duration of this plan.

Essendon Airport is actively involved in enhancing the surrounds of the airport to provide a more aesthetic appearance, as well as minimising their impacts on surrounding land and surface water bodies.

Objectives

To minimise impacts of airport activities on the surrounding environment.

To minimise the spread of noxious weeds and discourage feral animals.

To support local environmental community groups in the preservation of remnant vegetation and habitat areas.

Flora and Fauna		
Issues	Proposed Activity	Responsibility for achieving
Weed management.	Implement a noxious weed removal program, focusing on Serrated tussock and Scotch thistle.	EAPL
Noxious animal management	Control feral animal populations within the airport boundaries.	EAPL / Tenant
Future compliance	Discharge obligations under the EPBC Act.	EAPL
Community Liaison	If possible, participate in local environmental community group activities, eg, tree planting days.	EAPL
Landscaping	Maintain and improve airport landscape.	EAPL

6.10 HERITAGE

No sites of Aboriginal heritage significance are known to exist at the airport.

EAPL engaged Godden Mackay Logan, Heritage Consultants, to undertake a Heritage Management Strategy for Essendon Airport. The Heritage Management Strategy is to be read and applied in conjunction to this Environmental Strategy.

Objectives

To protect and preserve all identified heritage items with significant Commonwealth Heritage values at the airport.

Heritage and Native Title		
Issues	Proposed Activity	Responsibility for achieving
Protection of Essendon Airport's Identified Heritage Values	Implement the Heritage Management Strategy for Essendon Airport.	EAPL
Indigenous Heritage	If any archaeological sites, artefacts or objects are discovered at any time during development, excavations or construction works, the site shall be stabilised and further work in the area stopped. Qualified personnel shall be contacted to further assess the significance of the findings.	EAPL

7. REFERENCES

Biosis Research August 2004 *Report No. 480 Flora and Fauna Assessment of Proposed Tullamarine Calder Interchange upgrade, Victoria*

Biosis Reseach March 2007 *Flora and Fauna Assessment of Essendon Airport, Victoria*

Ecology Australia Pty Ltd, 1998. *Essendon Airport Survey for Significant Flora and Fauna*. Prepared for Federal Airports Corporation. Fairfield: Ecology Australia.

Essendon Airport Pty Ltd, October 2008. *Essendon Airport Master Plan*. Melbourne: Essendon Airport Pty Ltd.

Essendon Airport Limited, January 2000. *Essendon Airport Environment Strategy*. Melbourne: Essendon Airport Limited.

Essendon Airport Pty Ltd, October 2004, *Essendon Airport Environment Strategy 2005-2009* Melbourne, Essendon Airport Pty Ltd

Meinhardt Infrastructure & Environment Pty Ltd Jan 2008 *Golden Sun Moth (Synemon plata) Survey Essendon Airport*

Register of National Estate *Essendon Airport, Tullamarine Fwy, Strathmore, VIC, Australia*

Register of National Estate *Buildings 103 and 104, Essendon Airport, Lionel St, Airport West, VIC, Australia*