

# MELBOURNE AIRPORT

## Environmental Management Plan

August 2019

### Document control

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## ABBREVIATIONS

Abbreviation	Description
ACM	Asbestos Containing Materials
APAM	Australia Pacific Airports (Melbourne)
AQIS	Australian Quarantine and Inspection Service
ARI	Average Recurrence Interval
AST	Above-ground storage tank
DG	Dangerous Good
EC	Electrical Conductivity
EMP	Environmental Management Plan
EMS	Environmental Management System
ESR	Environmental Site Register
FOD	Foreign Object Debris
HPZ	Heritage Protection Zones
LOC	Loss of Containment
PCBs	Polychlorinated Biphenyls
PFAS	Per- and poly-fluoroalkyl substances
RA	Risk Assessment
SDS	Safety Data Sheets
SMF	Synthetic Mineral Fibres
TPZ	Tree Protection Zone
UST	Underground Storage Tank
VPZ	Vegetation Protection Zones

## GLOSSARY OF TERMS

Term	Description
Environmental Aspect	An element of an organisation's activities, products or services that can interact with the environment. Aspects = Causes.
Environmental Impact	Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's activities, products or services. Impacts = Effects.
Environmental Incident	An event that may cause harm or potential harm to an environmental receptor e.g. spills, erosion and sediment-laden water entering drains/waterways; non-compliance with environmental management plans.
Environmental Management Measure	A control or mitigation measure required to prevent or reduce an environmental impact.
Foreign Object Debris (FOD)	An aviation term for refuse / debris that could potentially cause damage to staff, aircraft or equipment.
Major Project	A significant development at Melbourne Airport for which a Major Development Plan is required to be submitted to the Federal Government for approval in accordance with the requirements of the Commonwealth Airports Act 1996.

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Term	Description
Operation categories	<p>For the purpose of this EMP, this term refers to the following general types of activity:</p> <ul style="list-style-type: none"> <li>■ Construction and demolition</li> <li>■ Repair and maintenance work</li> <li>■ Storage, handling and use of chemicals and fuel</li> <li>■ Vegetation and estate management.</li> </ul>
Permit to Commence Works (PERCOW)	A permit issued by APAM's Building Approvals Leader (BAL) prior to commencing work on site.
Prescribed Industrial Waste (PIW)	<p>PIW is regulated hazardous industrial waste, as defined by the Environment Protection (Industrial Waste Resource) Regulations 2009, and categorised in accordance with EPA's Industrial Waste Resource Guidelines.</p> <p>Examples of possible PIW at Melbourne Airport may include used spill-kit absorbent materials; air emission filters; contaminated soil; asbestos waste; oily rags; waste oils and solvents etc.</p>
Project Manager	The person responsible for delivery of a project or activity at Melbourne Airport.
Putrescible waste	Solid waste that contains organic matter capable of being decomposed by microorganisms.
Contractor	An individual or company engaged by APAM to undertake works at Melbourne Airport.

## 1.0 INTRODUCTION

### 1.1 Management Goals and Objectives

This EMP is designed to assist in the delivery of the environmental management principles described in APAM's Melbourne Airport Environment Policy by identifying the potential environmental risks that are posed by APAM operations and describing the measures that will be taken to eliminate or mitigate those risks.

The implementation of this EMP will also assist in meeting the actions outlined in APAM's Airport Environment Strategy and Environmental Management System (EMS).

### 1.2 EMP Purpose

The purpose of this EMP is to describe:

- The minimum environmental management requirements to be implemented to meet APAM's management goals and commitments;
- The roles and responsibilities of APAM personnel in implementing this EMP;
- Environmental monitoring and reporting requirements;
- Environmental incident response procedures; and
- Procedures for reporting and responding to EMP non-conformances and incidents as well as corrective and preventative actions.

### 1.3 Scope

This EMP outlines the minimum environmental management requirements that must be met during all operational and construction activities within the boundaries of Melbourne Airport controlled land. The EMP covers APAM's routine operations and activities broadly including:

- Construction and demolition work;
- Repair and maintenance work;
- Storage, handling and use of chemicals and fuel;
- Vegetation and estate management.

This EMP applies to all APAM Departments and applies to operations carried out by, and on behalf of APAM. It also provides guidance regarding APAM's expectations of environmental management for third parties.

Where the APAM building approval process triggers the need for a project specific EMP, this document should be used as a guide in developing the project specific EMP to address APAM's minimum environmental management requirements. The development of a project specific EMP must also consider potential environmental risks outside the scope of this EMP and identify appropriate project specific controls to address those risks.

The EMP includes a number of general environmental management expectations relating to waste, air and noise management which apply to all activities undertaken across the airport. In addition, APAM's emergency response and complaints handling procedures apply in all instances, and to all activities and areas of operation across Melbourne Airport. These general procedures are outlined in Section 4.

Environmental management measures relating more specifically to the activities associated with construction and demolition work, repair and maintenance work, storage, handling and use of chemicals and fuel and vegetation and estate management are outlined in Section 5.

## 1.4 Exclusions

Whilst not specifically subject to this EMP, the following parties and activities should consider the requirements of this EMP when developing environmental control measures:

- APAM contractor EMPs;
- Tenant Operational Environmental Management Plans (OEMPs) required under APAM lease agreements;
- 'Major Projects' that require project specific management plans;
- Third party contractor EMPs.

The following activities are not included in the EMP scope:

- Major emergency response or preparedness activities.

## 1.5 EMP Structure

This document has been structured to include:

- A list of applicable activities and broad operation types to which this EMP applies (**Table 2, Section 2**);
- The minimum general environmental management requirements relating to waste, air quality, noise management, emergency response and handling complaints (**Section 4**);
- The minimum environmental management measures relating more specifically to the activities associated with construction and demolition work, repair and maintenance work, storage, handling and use of chemicals and fuel and estate maintenance (**Section 5**);
- Reference to a range of other management documents (**Section 6**) which also apply to APAM's operations and activities. These include Corporate Procedures, Operational Policies and Procedures, Guides, Templates and Forms which have been informed parts of this EMP;
- The minimum requirements for compliance and monitoring (**Section 7**);
- **Appendix A** presents the EMP Risk Assessment;
- **Appendix B** provides an EMP document map to assist in the identification of applicable environmental management measures and checklists for specific activities;
- **Appendix C** provides an overview of the legislative and regulatory context applicable to activities at Melbourne Airport considered in this EMP;
- Operation-specific checklists which will assist in the application of appropriate controls as well as monitoring and evaluation of EMP effectiveness are presented in **Appendix D**;
- **Appendix E** provides a Dangerous Goods Manifest template.



## **1.6 Roles and responsibilities**

### **1.6.1 Department Managers**

APAM Department Managers have overall responsibility for:

- Ensuring compliance with applicable environmental legislative requirements;
- Ensuring personnel and contractors within their departments are aware of, and understand the EMP requirements relevant to their area/scope of work;
- Ensuring the necessary resources and processes are in place for implementation of required environmental management measures; and
- Providing feedback in the regular review of this EMP.

### **1.6.2 Project Managers**

Project Managers are required to:

- Communicate with personnel and contractors regarding site specific environmental issues and compliance with the EMP;
- Ensure that sufficient information about environmental risk is provided to relevant personnel;
- Coordinate the implementation of environmental management measures during work;
- Undertake site inspections on a regular basis to monitor the implementation and effectiveness of environmental management measures;
- Ensure non-conformances are identified, recorded and reported;
- Communicate incidents to the APAM Department Manager and the APAM Environment Team.

### **1.6.3 All Personnel**

All APAM personnel are required to:

- Undertake activities consistent with this EMP;
- Communicate incidents to the APAM Project Manager; and
- Ensure that they attend the provided environmental training relevant to their role and responsibilities.

### **1.6.4 APAM Environment Manager**

The APAM Environment Manager is responsible for:

- Coordinating the development and regular review of this EMP;
- Supporting the Environment Team to carry out site inspections on a regular basis to monitor the implementation and effectiveness of this EMP; and
- Coordinating feedback from APAM Department Managers in the review of this EMP.

### **1.6.5 APAM Environment Team**

The APAM Environment Team is required to:

- Assist APAM Department Managers and Project Managers in the induction and training of relevant personnel involved in implementing this EMP;
- Review and endorse operation or activity specific EMPs;
- Contribute to regular reviews of this EMP;

- Carry out inspections on a regular basis to monitor the implementation and effectiveness of this EMP; and
- Report and respond to incidents and facilitate the implementation of corrective actions.

## 1.7 Project Contacts

Table 1 is to be completed to include details (name and contact number) of the relevant Operator or Project contacts, depending on EMP application.

**Table 1: EMP Contact List**

Melbourne Airport Coordination Centre	(03) 9297 1601
APAM Environment Manager	0473 300 570
Project Manager / Development Manager <i>[Include both APAM and external contacts as relevant]</i>	
Site Supervisor	
Principal Contractor (if relevant)	
List of subcontractors (if relevant)	
Principal Contractor's representative available 24/7 (if relevant)	

## 1.8 How to use this EMP

There are a number of general environmental management measures relating to waste management, air and noise management, emergency response and complaints handling which apply to all activities undertaken across the airport. These measures are outlined in Section 4. Further to these, Appendix B provides an EMP Document Map that links specific activities with applicable environmental management measures outlined in Section 5. The EMP Document Map groups a number of individual activities into common operation categories. These include:

- Construction and demolition;
- Earthworks;
- Storage, handling and use of chemicals and fuel; and
- Vegetation and estate management.

EMP checklists (Appendix D) have been developed to guide the implementation of environmental management measures as well as monitoring and evaluation of the EMP's effectiveness through the application of environmental management measures.

Table 2 provides an overview of how to apply the EMP, and Figure 1 illustrates how the document map in Appendix B is to be used to determine the applicable controls to be considered for each activity, and which checklist to use.

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**Table 2: Applying the EMP**

Step	All EMP uses	Additional considerations for project specific EMPs
Step 1. Identify activities	<ul style="list-style-type: none"> <li>Refer to the EMP Document Map in Appendix B.</li> <li>Identify relevant activities in Row 1 of the EMP Document Map.</li> <li>Follow the relevant column down from Row 1 to identify: <ul style="list-style-type: none"> <li>The checklist to be used to assist in implementation of the relevant environmental management controls (Row 2);</li> <li>The sections of the EMP relevant to the activity (Column 2), based on the ticks or crosses; and</li> <li>The specific management controls applicable for the activity (Column 4).</li> </ul> </li> </ul> <p>[Refer to example in Figure 1 below]</p>	<ul style="list-style-type: none"> <li>Additional project or location specific environmental risks which may apply must be considered.</li> <li>Additional environmental management measures must be developed to address risks identified.</li> <li>Project specific EMP to be approved by APAM Environment Team prior to works. See note below.</li> </ul>
Step 2. Apply EMP controls	<ul style="list-style-type: none"> <li>The relevant EMP control measures must be implemented during APAM operations and activities.</li> </ul>	<ul style="list-style-type: none"> <li>Project specific EMP to be implemented during works.</li> </ul>
Step 3. Monitor implementation of EMP	<ul style="list-style-type: none"> <li>Project Manager to monitor EMP compliance.</li> <li>Non-conformances are to be reported as environmental incidents.</li> <li>APAM Environment Team to conduct periodic inspections to assess EMP compliance.</li> </ul>	As per Step 3 - All EMP uses

## ***A note on project specific EMPs***

Project specific EMPs submitted to the APAM Environment Team for approval must in in a A4 format and size. Maps and plans can be provided in A3 format and size where required. For specific purposes and projects, other submission formats and sizes may be considered and accepted by APAM. The applicant must discuss this and have this variation approved by the APAM Environment Team prior to submission.

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Key: ✓ - Is relevant, or <i>may be</i> relevant to the works ✗ - Unlikely to be relevant to the works			Column 4: specific management controls	Construction of new structures
Column 2: relevant EMP sections			Corresponding EMP Checklist:	
Required mitigation measures			Management controls	
General Environmental management requirements	EMP section 4	Waste Management (Section 4.1)	A1 – A31	✓
		Air Quality (Section 4.2)	B1 – B3	✓
		Noise management (Section 4.3)	C1-C9	✓
		Emergency response	Refer Section 4.4	✓
		Complaints handling	Refer Section 4.5	✓
Storage and handling of fuels and chemicals	EMP section 5.1	General controls	D1-D6	✓
		Chemical storage	D7-D10	✓
		Refuelling controls	D11-D13	✓
		Control of fuel / chemical leaks from plant, vehicles and equipment	D14-D16	✓
		Dangerous goods storage, use and handling	D17-D19	✓
Management of excavated soil	EMP section 5.2	General controls	E1-E5	✓
		Soil Stockpile management	E6-E13	✓
Erosion and sedimentation	EMP section 5.3	General controls incl. weather and staging	F1-F3	✓
		Erosion and sediment control structures	F4-F17, Table 7	✓
		Control of sediment during dewatering	F18-23	✓
Surface water and stormwater	EMP section 5.4	General stormwater and surface water protection measures	G1-G7, Table 8	✓
		Works within waterways and riparian areas	G8-G10	✓
Land and Groundwater Contamination	EMP section 5.5	Bulk fuel storage controls	H1-H5	✗
		Control of imported materials to site	H6-H9	✓
		Contamination assessment requirements	H10-H12	✓
		Contaminated spoil management	H13-H21	✓
		Contaminated stockpile management	H22-H23	✓
		Management of contaminated water from dewatering activities	H24-H25	✓
		PFAS Management Procedure	H26-H28	✓
Flora and fauna	EMP section 5.6	General flora and fauna management controls	I1-I7	✓
		Bushfire prevention	I8-I10	✓
		Physical protection of flora and fauna	I11-I25	✓
		Management of vegetation removal	I26-I33	✓
		Revegetation of disturbed land	I34-I38	✓
		Weed and pest control	I39-I46	✓
		Prescribed burning fire controls	I47-I53	✗
Heritage	EMP section 5.7	General heritage controls	J1-J3	✓
		Working in proximity to heritage sites	J4-J5	✓
		Unexpected finds protocol	J6	✓
		Physical protection of known heritage sites - Heritage Protection Zones (HPZ)	J7	✓

Figure 1: Using the EMP Document Map

## 2.0 APAM OPERATIONS AND ACTIVITIES

Table 3 outlines the broad operation categories and activities included within this EMP scope.

**Table 3: APAM Operations and Activities**

Operation Category	Possible included activities
Construction and Demolition	<ul style="list-style-type: none"> <li>■ Construction of new structures</li> <li>■ Demolition or renovation of existing structures</li> <li>■ Repairs/ maintenance of existing buildings or infrastructure (indoors)</li> <li>■ Building/ renovating / repairs/ maintenance of existing infrastructure (outdoors)</li> <li>■ Construction or demolition of civil infrastructure</li> <li>■ Drainage works</li> </ul>
Earthworks	<ul style="list-style-type: none"> <li>■ Excavation and trenching</li> <li>■ Geotechnical and exploratory ground investigation</li> <li>■ Ground improvement and / or compaction</li> <li>■ Management of soil stockpiles</li> <li>■ Dewatering activities</li> <li>■ Management of contaminated soil stockpiles</li> </ul>
Storage, handling and use of chemicals and fuel	<ul style="list-style-type: none"> <li>■ Maintenance and repair of vehicles and plant</li> <li>■ Storage and use of chemicals including fuel</li> <li>■ Storage and handling of dangerous goods</li> <li>■ Generation and management of prescribed wastes</li> </ul>
Vegetation and estate management	<ul style="list-style-type: none"> <li>■ Vegetation clearing</li> <li>■ Pruning, mowing and slashing or general landscaping</li> <li>■ Use of herbicides, fertilisers and pesticides</li> <li>■ Prescribed burning</li> </ul>

## 3.0 RISK ASSESSMENT

Appendix A presents the Risk Assessment covering the activities commonly carried out by APAM Departments. Environmental management measures have been developed to achieve an environmental risk rating of medium or less.

The risk assessment process informing the development of this EMP adopted likelihood and consequence definitions consistent with APAC's Enterprise Risk Management Approach.

### 3.1 Assessment of environmental risks

Table 4 summarises the key risks identified for APAM operations and activities assessed as having a medium risk rating after controls. All other risks were assessed as low or very low after controls. Refer to Appendix A for the full assessment of identified risks.

**Table 4: Risk assessment summary**

Activity	Potential Environmental Impacts	Risk Rating
Excavation and trenching	<ul style="list-style-type: none"> <li>Erosion of disturbed soils</li> <li>Generation of dust</li> <li>Sedimentation of surface water caused by sediment in stormwater runoff</li> <li>Erosion and migration of contaminated materials</li> </ul>	Medium
Building or renovating built structures	<ul style="list-style-type: none"> <li>Generation of hazardous waste</li> <li>Potentially contaminated fill being brought to site for building /landscaping</li> </ul>	Medium
Storage and use of chemicals/ fuel	<ul style="list-style-type: none"> <li>Pollution of land and groundwater from spill of chemicals</li> <li>Pollution of stormwater/ surface water from chemical spills</li> </ul>	Medium
Management of soil stockpiles	<ul style="list-style-type: none"> <li>Erosion of disturbed soils</li> <li>Generation of dust from stockpiles</li> <li>Sedimentation of surface water caused by sediment in stormwater runoff</li> <li>Erosion and migration of contaminated materials</li> </ul>	Medium
Repairing and maintaining existing infrastructure	<ul style="list-style-type: none"> <li>Pollution of stormwater/ surface water from leaks or chemical spills</li> <li>Creation of waste - excavated spoil</li> </ul>	Medium
Petroleum storage	<ul style="list-style-type: none"> <li>Pollution of land and groundwater from spill of fuel</li> <li>Pollution of stormwater/ surface water from fuel spills</li> </ul>	Medium
Maintenance and repair of vehicles and plant	<ul style="list-style-type: none"> <li>Pollution of land and groundwater from fuel or other chemical spill</li> <li>Pollution of stormwater/ surface water from fuel or other chemical spills</li> </ul>	Medium
Storage and handling of placarded quantities of other dangerous goods	<ul style="list-style-type: none"> <li>Spill or other major LOC of DGs causing contamination of soil</li> </ul>	Medium
Vegetation clearing	<ul style="list-style-type: none"> <li>Potential unintended impacts to native flora and fauna or protected ecosystems or species</li> </ul>	Medium
Use of herbicides, fertilisers and pesticides	<ul style="list-style-type: none"> <li>Pollution of stormwater from spills</li> <li>Pollution of stormwater from runoff</li> </ul>	Medium

## 4.0 GENERAL ENVIRONMENTAL MANAGEMENT REQUIREMENTS

A number of general environmental management measures relating to waste management and air and noise management apply to all activities undertaken across the airport. In addition, APAM's emergency response and complaints handling procedures apply in all instances, and to all activities and areas of operation across Melbourne Airport. These general environmental management measures are outlined in Sections 4.1-4.5 below.

Environmental management measures relating more specifically to the activities associated with construction and demolition work, repair and maintenance work, storage, handling and use of chemicals and fuel, and vegetation and estate management, as developed through the EMP risk assessment process, are outlined in Section 5.

### 4.1 Waste management

#### 4.1.1 Roles and responsibilities

##### ***APAM Facilities Maintenance Department***

APAM's Facilities Maintenance Department is responsible for ensuring effective waste management within the airports terminals and office facilities. It also provides support and advice to other areas of the business in relation to waste management.

##### ***Third Party Site-Wide Waste Contractor [IKON]***

IKON is the assigned APAM contractor responsible for the collection and disposal of waste generated from terminals T2, T3 and T4, APAM offices and landside public areas.

##### ***Tenants and operators***

- All operators are responsible for the safe containment and disposal of any waste their operation generates.
- All operators must ensure they have adequate waste disposal facilities for their operation and that the waste is contained at all times.
- Tenants within T2, T3 and T4 must dispose of waste generated from their tenancy to the bin rooms.

##### ***All Airside Personnel***

- All airside personnel involved in waste disposal operations are to ensure all containers are within their designated areas and are not overflowing.
- All airside personnel are expected to stop and pick up any Foreign Object Debris (FOD) found on the apron and movement areas. It is expected that all personnel will also immediately remove FOD that could potentially create a hazardous situation or cause damage.

#### 4.1.1 Waste types and management pathways at Melbourne Airport

**Table 5: Melbourne Airport Waste Management Streams**

Waste Type	Waste Description/Classification	APAM Approved Reuse/Recycling or Disposal Methods
Prescribed Industrial Waste (PIW)	PIW is regulated hazardous industrial wastes, as defined by the Environment Protection (Industrial Waste Resource) Regulations 2009, and categorised in accordance with EPA's Industrial Waste Resource Guidelines. Examples of possible PIW at Melbourne Airport may include used spill-kit absorbent materials; air emission filters; contaminated	<ul style="list-style-type: none"> <li>■ Provision must be made for the segregated management and storage prior to its transport off-site.</li> <li>■ Off-site disposal to a licenced waste facility.</li> </ul>

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Waste Type	Waste Description/Classification	APAM Approved Reuse/Recycling or Disposal Methods
	soil; asbestos waste; oily rags; waste oils and solvents etc.	
Asbestos-containing material (ACM)	Industrial waste (special waste)	<ul style="list-style-type: none"> <li>Off-site disposal to a waste facility licensed to accept ACM.</li> </ul>
Quarantine waste	Waste that could potentially introduce foreign disease or pests into Australia. Often generated from inbound international aircraft and can include cabin waste, amnesty bins, seizures from passenger baggage and imported cargo. This waste may contain quarantinable pests and diseases.	<p>The control of all quarantine waste is the responsibility of the Australian Quarantine and Inspection Service (AQIS).</p> <ul style="list-style-type: none"> <li>Procedures for the collection, storage, transportation, treatment and disposal of quarantine waste are detailed in agreements between AQIS and the individual companies handling the waste.</li> <li>Only companies approved by AQIS are permitted to handle quarantine waste.</li> </ul>
Building waste (demolition waste such as: Concrete, asphalt, bricks, rock and aggregate)	Recyclable product/ industrial waste depending on results of waste classification.	<ul style="list-style-type: none"> <li>Crushed and used as aggregate, backfill or as road base.</li> <li>Surplus transported off-site to a suitably licensed recycling or disposal facility.</li> </ul>
Putrescible waste	Waste that may decompose, usually made up of food stuffs and may attract wildlife if mismanaged.	<ul style="list-style-type: none"> <li>Disposed of to landfill as general waste.</li> </ul>
Office paper	Recyclable product	<ul style="list-style-type: none"> <li>Transported off-site to a suitably licensed recycling facility.</li> </ul>
Cardboard	Recyclable product	<ul style="list-style-type: none"> <li>Transported off-site to a suitably licensed recycling facility.</li> </ul>
Confidential documents	Recyclable product which requires secure handling and destruction	<ul style="list-style-type: none"> <li>Collected by a secure document management contractor for off-site destruction and recycling</li> </ul>
Electronic waste	Electronic waste (e-waste) comprises waste electrical or electronic equipment. Televisions, mobile phones, computers and their peripherals (e.g. mice, keyboards), whitegoods and fluorescent lighting are all forms of e-waste.	<ul style="list-style-type: none"> <li>Transported off-site to a suitably licensed recycling facility.</li> </ul>
Scrap metal	Recyclable product/ industrial waste	<ul style="list-style-type: none"> <li>Transported off-site to a suitably licensed recycling facility.</li> </ul>



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Waste Type	Waste Description/Classification	APAM Approved Reuse/Recycling or Disposal Methods
Timber	Recyclable product/ industrial waste	<ul style="list-style-type: none"> <li>Transported off-site to a suitably licensed recycling or disposal facility.</li> </ul>
Plastics	Recyclable product/ industrial waste	<ul style="list-style-type: none"> <li>Transported off-site to a suitably licensed recycling facility.</li> </ul>
Glass	Recyclable product/ industrial waste	<ul style="list-style-type: none"> <li>Transported off-site to a suitably licensed recycling facility.</li> </ul>
Timber pallets	Recyclable product/ industrial waste	<ul style="list-style-type: none"> <li>Return to supplier</li> <li>Transported off-site to a suitably licensed recycling facility.</li> </ul>
Excavated soil / spoil	Waste classification depends on chemical analysis	<ul style="list-style-type: none"> <li>Subject to waste classification. Refer to Section 5.2 for methods.</li> </ul>
Soil slurry	Soil slurry may be generated from non-destructive digging or underground boring activities. Waste classification depends on chemical analysis.	<ul style="list-style-type: none"> <li>Transported off-site to a suitably licensed facility.</li> <li>Dried out on-site in an engineered, lined drying pond, subject to approval from the APAM Environment Team. The dried solids can then be managed as per soil.</li> </ul>
Waste water	Includes any non- amenities water that requires disposal or other management. It includes wash waters.	<ul style="list-style-type: none"> <li>Can be reused on site for dust suppression purposes if quality meets reuse criteria (refer to Action Trigger Limits set out in <b>Error! Reference source not found.</b>)</li> </ul>
Trade waste	Trade waste is waterborne waste (other than waste that is a prohibited substance, human waste or stormwater) generated at Melbourne Airport from food service and commercial businesses, as well as any other wastes licenced to be disposed of to sewer.	<ul style="list-style-type: none"> <li>Disposed of to sewer in accordance with a Trade Waste Agreement with City West Water.</li> </ul>

## 4.1.2 Waste container specifications and identification

### Foreign Object Debris (FOD) – Red Container

Red wheelie containers are to be used for clean waste that poses a FOD hazard and are to be clearly marked **FOD BIN**.



### Putrescible waste

Putrescible waste generated on the airport must be placed in secure rubbish containers – watertight, animal proof and covered. Compactors are recommended to be used for large operations particularly those involving putrescible waste.

[Photo to be inserted of Putrescible Waste containers found in:

- 1) APAM Offices
- 2) Airside
- 3) Other work site]

### Prescribed Industrial Waste – Orange Container

Examples of possible PIW at the APAM site may include used spill-kit absorbent materials; air emission filters; contaminated soil; asbestos waste; oily rags; waste oils and solvents etc.

PIW generated on the airport must be placed in secure rubbish containers – watertight, covered and lined to prevent leaks. They must also be constructed to prevent the buildup of fumes inside the container.

Orange wheelie containers are to be used for prescribed waste and are to be clearly marked with the words **Prescribed Industrial Waste Only**.



## Recyclable Waste

Within the Terminals and Office Buildings, recyclables include paper and secure documents recycling; e-waste recycling, and mixed recycling for plastics, cardboard and paper.

Outside of terminals and office buildings, cages with a self-closing lid are recommended where applicable for clean cardboard recycling and must be clearly marked with the words **Collapsed Cardboard Only**.

Currently, only cardboard is recycled in T2 Departures Airside. All other waste must be treated as quarantine waste.



## Spill Response Kit – Yellow Container

Yellow wheelie containers are to be used for the storage of diatomaceous earth (kitty litter) for spill response and are to be clearly marked with the words **Spill Response Kit** (containers should also have a semi-secured lid to prevent staff using them as general rubbish bins). Staff must be instructed to ensure they do not utilise these bins to dispose of waste.



## Quarantine Waste

Receptacles for the collection of quarantine waste are to be clearly marked **Bio-Security Waste**. These receptacles are not to be moved or in any way interfered with except by an AQIS officer or a company representative approved by AQIS to handle, transport, treat or dispose of quarantine waste. Items must not be removed from quarantine waste receptacles.



### 4.1.3 Waste water and Trade waste

APAM Departments who utilise current Trade Waste Agreements for the disposal of effluent to sewer must ensure compliance with the agreement. Only the permitted types of liquid wastes may be disposed of to Trade Waste.

## 4.1.4 Summary of Waste management controls

A – Waste management				
Objectives		<ul style="list-style-type: none"> <li>■ To carry out the management of waste in accordance with regulatory requirements.</li> <li>■ To promote sustainable management of resources.</li> <li>■ To reduce waste disposed of to landfill.</li> <li>■ To optimise the use of sustainable materials.</li> <li>■ To reduce the level of contamination in waste streams for reuse / recycling.</li> </ul>		
Specific legislation/ regulation /guidance		<ul style="list-style-type: none"> <li>■ Airports Act 1996 (Cth)</li> <li>■ Airports (Environment Protection) Regulations 1997 (Cth)</li> <li>■ Litter Act 1987</li> <li>■ Biological Control Act 1986</li> <li>■ Environment Protection Act 1970 (only limited application in relation to waste requirements)</li> <li>■ Environment Protection (Industrial Waste Resource) Regulations 2009</li> </ul>		
Control ID		Required environmental management measures	Timing	Reference
A	1	<ul style="list-style-type: none"> <li>■ Prioritise application of the waste hierarchy. In order of most favourable to least favourable:                             <ul style="list-style-type: none"> <li>- Avoidance of waste generation.</li> <li>- Reduction of waste generation.</li> <li>- The reuse of materials wherever possible.</li> <li>- Recycling of materials which cannot be reused.</li> <li>- Disposal.</li> </ul> </li> </ul>	At all times	

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A – Waste management				
A	2	■ Designated waste management areas must be established for sorting of wastes into waste streams.	At all times	
A	3	■ Wastes must be managed in accordance with the APAM Approved Reuse/Recycling or Disposal Methods presented in Table 5.	At all times	Table 5
A	4	■ Waste must be segregated and placed into designated containers as detailed in Section 4.1.2.	At all times	Section 4.1.2
A	5	■ All operations and activities must have adequate waste disposal facilities.	At all times	
A	6	■ Terminal tenants must dispose of all waste into bins provided and return full bins to designated bin rooms in readiness for collection and disposal by IKON.	At all times	
A	7	■ The management of waste in airside locations must comply with the Melbourne Airport Operational Safety Policy, <i>Airside Waste Management</i> .	At all times	
A	8	■ Operators are responsible for ensuring that their leased areas (including surrounding fences) are clean, tidy and free from Foreign Object Debris (FOD).	At all times	
A	9	■ All airside personnel involved in waste disposal operations must ensure all bins are within their designated areas and are not overflowing.	At all times	
A	10	■ The location of all bins positioned on the airside is to be approved by Melbourne Airport.	At all times	
A	11	■ Waste collection is to be carefully planned to avoid the attraction of wildlife or FOD hazards.	At all times	
A	12	■ Airside operators are responsible for ensuring staff and contractors remove all waste they produce from the apron and dispose of this correctly (this includes pallets, shrink wrap, headsets and equipment parts). Operators must ensure all staff are aware of their obligations when airside and are sufficiently supervised.	At all times	
A	13	■ A register must be kept and maintained of all PIW stored at the site by the Project Manager. Copies of all EPA Waste Transport Certificates and disposal receipts for the off-site transport of PIW generated at the site must be maintained.	At all times	

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A – Waste management				
A	14	<ul style="list-style-type: none"> <li>Waste bins provided across work areas must be fit for purpose to contain the intended waste stream securely, prevent leaks or spills, reduce odour, and to prevent the attraction of vermin.</li> </ul>	At all times	
A	15	<ul style="list-style-type: none"> <li>Waste bins must contain labels which are large, clearly visible and in good condition.</li> </ul>	At all times	
A	16	<ul style="list-style-type: none"> <li>Construction projects must ensure a minimum of 50% of construction waste will be reused or recycled during the project.</li> </ul>	During construction	
A	17	<ul style="list-style-type: none"> <li>Construction projects must provide a waste disposal report to the APAM Environment Team at the conclusion of the project. The waste disposal report must:                             <ul style="list-style-type: none"> <li>Identify each waste stream produced;</li> <li>The quantities of each waste stream disposed of; and</li> <li>The quantities of each waste stream recycled.</li> </ul> </li> </ul>	At the completion of construction	
Waste Water			Timing	Reference
A	18	<ul style="list-style-type: none"> <li>Water must be used efficiently, and work should be planned to minimise the amount of waste water generated on site.</li> </ul>	At all times	
A	19	<ul style="list-style-type: none"> <li>Wastewater must be re-used on site for applications such as dust suppression, when of a suitable quality. Prior to any planned reuse, water quality parameters must be measured in the field for turbidity, pH, Electrical Conductivity (EC) and visual hydrocarbon sheens. If water quality is outside of the Action Trigger Limits set out in <b>Error! Reference source not found.</b> Section 5.4, advice from APAM Environment Team should be obtained prior to any reuse.</li> </ul>	During construction	Action Trigger Limits set out in <b>Error! Reference source not found.</b> , Section 5.4
A	20	<ul style="list-style-type: none"> <li>If wastewater cannot be reused on-site, it must be classified and disposed of off-site in accordance with regulatory requirements or to sewer in accordance with a Trade Waste Agreement (TWA).</li> </ul>	During construction	

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A – Waste management				
A	21	<ul style="list-style-type: none"> <li>APAM Departments who utilise current Trade Waste Agreements for the disposal of effluent to sewer must ensure compliance with the agreement.</li> </ul>	At all times	
A	22	<ul style="list-style-type: none"> <li>No effluent can be disposed of to sewer without first contacting the relevant APAM Facilities Manager and obtaining written approval.</li> </ul>	At all times	
Managing hazardous building waste			Timing	Reference
A	23	<ul style="list-style-type: none"> <li>Prior to any repair or demolition of built structures which may contain hazardous building materials including Asbestos Containing Materials (ACM), Synthetic Mineral Fibres (SMF), lead paint or Polychlorinated Biphenyls (PCBs), the Melbourne Airport Hazardous Building Materials and ACM Register must be consulted to determine the likelihood of such materials being encountered.</li> </ul>	Planning / approval stage	
A	24	<ul style="list-style-type: none"> <li>The APAM Asbestos Identification and Removal Process must be followed. In summary, prior to undertaking any activities onsite, contact the APAM Contracted Hygienist to:               <ol style="list-style-type: none"> <li>1. Arrange a visit to the site to see the location of the work, and talk about the scope of the demolition, refurbishment work and / or civil works proposed. This should cover all activities which could disturb ACM;</li> <li>2. The APAM Contracted Hygienist will tell you about findings from previous work and inspections in the area and review with you the Asbestos Register;</li> <li>3. The APAM Contracted Hygienist will advise recommended control actions to take to manage the risk from identified asbestos materials in the project area.</li> </ol> </li> </ul>	Planning / approval stage	
A	25	<ul style="list-style-type: none"> <li>Environmental management must include all specific management controls recommended by the APAM Contracted Hygienist in addition to the measures outlined in this EMP.</li> </ul>	At all times	
A	26	<ul style="list-style-type: none"> <li>Work is to immediately stop in the event that hazardous building materials are unexpectedly found or suspected during the course of work. The APAM Project Manager is to be contacted immediately, and the APAM Head of Safety to be informed. Access of personnel is to be restricted prior to the attendance to site of a suitably qualified third party occupational hygienist to assess.</li> </ul>	At all times	



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A – Waste management				
Prescribed Industrial Waste (PIW)			Timing	Reference
A	27	■ Solid and liquid PIW must be segregated from general waste.	At all times	
A	28	■ Solid and liquid PIW must be stored in containers that prevent discharge into the environment.	At all times	
A	29	■ PIW bins and waste liquid storage must be adequately labelled and located close to work sites.	At all times	
A	30	■ APAM personnel must advise the APAM Facilities Maintenance Department in the event that PIW waste receptacles are full and require emptying.	As required	
Green waste management			Timing	Reference
A	31	■ Green waste containing weed material or which cannot be reused must be disposed of in accordance with regulatory requirements.	At all times	
A	32	■ All other green waste must be mulched and reused on site.	At all times	
Concrete waste			Timing	Reference
A	33	■ Clean, hard concrete waste (e.g. broken up slabs) may reused on-site at Melbourne Airport. Advice from APAM Environment Team should be obtained prior to any stockpiling or reuse.	During construction	
A	34	■ Where possible, concrete trucks should be discharged and washed out off-site.	During construction	
A	35	■ If off-site discharge and wash out is not possible, a designated concrete wash out area must be maintained on-site. The washout area must: <ul style="list-style-type: none"> <li>- be located at least 20m away from drainage lines, stormwater drains and water bodies;</li> <li>- be conveniently located for washing out equipment and clearly signposted; and</li> <li>- be appropriately lined and bunded to ensure that all waste water and slurry is fully contained.</li> </ul>	During construction	

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A – Waste management				
		Examples of suitable concrete wash outs include: plastic-lined skip bins, plastic-lined berm trap.		
A	36	■ All concrete discharge wash out waste must be disposed of off-site in accordance with regulatory requirements.	During construction	

## 4.2 Air Quality

B – Air Quality				
Objectives		■ To minimise the impact of dust and other air emissions on local air quality and avoid nuisance to sensitive receptors.		
Specific legislation/ regulation /guidance		■ Airports Act 1996 (Cth) ■ Airports (Environment Protection) Regulations 1997 (Cth) ■ Climate Change Act 2010 ■ Victorian Renewable Energy Act 2006 ■ The National Greenhouse and Energy Reporting Act 2007 (NGER Act)		
Control ID		Required environmental management measures	Timing	Reference
B	1	■ Vehicles and equipment must be fitted with appropriate emission control equipment and routinely maintained in accordance with manufacturer's instructions. Maintenance records must be kept.	At all times	
B	2	■ Vehicles and equipment must be turned off when not in use.	At all times	
B	3	■ Dust generation from the use of heavy plant, equipment and vehicles is to be limited by the following controls:  - All heavy plant, equipment and vehicles must remain within approved worksite and access areas.  - All trucks carrying potential dust generating materials must have their loads fully covered.  - Speed limits on all access roads and tracks must be established to minimise dust generation and speed limits adhered to.  - Use dust suppression techniques on roadways if required e.g. water carts, rumble grids.  - Wheel wash and truck wash down prior to leaving dusty work sites where possible.	At all times	
B	4	■ Water carts must be used to control dust during pavement demolition and earthworks.	At all times	

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B – Air Quality				
B	5	■ Where practicable, earth moving and/or excavation works are to be limited during high wind events.	At all times	
B	6	■ The APAM Environment Team may direct earth moving/excavation works to cease where excessive dust is generated, and/or during high wind events.	At all times	
B	7	■ Earthwork and ground disturbing activities must be planned and staged to reduce the duration and extent of exposed soils.	Planning & at all times	
B	8	■ Disturbed areas must be reinstated as soon as practicable with ground cover/surfacing suitable for the site conditions (e.g. size or area to be stabilised; topography; soil type; and duration of work). At least 70% ground cover (combined plant and mulch) is considered necessary to provide satisfactory erosion control.	At all times	
B	9	■ Hardstand areas are to be kept clean of soil and other loose material which may give rise to dust emissions.	At all times	
B	10	■ Temporary stockpiles in place for less than 7 days must be managed to prevent dust emissions. This may include the use of mist sprays or water carts.	At all times	
B	11	■ Temporary stockpiles in place for more than 7 days must be stabilised to prevent dust generation. Suitable stabilisation techniques include covering of stockpiles or application of an approved soil binder (to be approved by the APAM Environment Team).	At all times	

## 4.3 Noise management

C – Noise management				
Objectives		<ul style="list-style-type: none"> <li>To minimise the impact of noise emissions and avoid nuisance to sensitive receptors.</li> </ul>		
Specific legislation/ regulation /guidance		<ul style="list-style-type: none"> <li>Airports Act 1996 (Cth)</li> <li>Airports (Environment Protection) Regulations 1997 (Cth)</li> </ul>		
Control ID		Required environmental management measures	Timing	Reference
C	1	<ul style="list-style-type: none"> <li>Works or activities which have the potential to generate significant levels of noise must be planned and undertaken during standard working hours (7am - 6pm Monday to Friday) if possible.</li> </ul>	Planning stage	
C	2	<ul style="list-style-type: none"> <li>Where practicable, separation distances must be maximised between locations of noise generating works and receptors sensitive to noise impacts.</li> </ul>	At all times	
C	3	<ul style="list-style-type: none"> <li>Suitable routes and times of travel must be determined and adhered to in order to reduce potential disturbances to sensitive receptors.</li> </ul>	Planning stage	
C	4	<ul style="list-style-type: none"> <li>Speed limits on all access roads and tracks to be adhered to.</li> </ul>	At all times	
C	5	<ul style="list-style-type: none"> <li>Plant and equipment used on Melbourne Airport land must be properly maintained to manufacturer's requirements. Internal combustion engines are to be fitted with a suitable muffler in good repair. Maintenance records are to be kept.</li> </ul>	At all times	
C	6	<ul style="list-style-type: none"> <li>Daily start up checks must be undertaken on all plant, equipment and vehicles.</li> </ul>	At all times	
C	7	<ul style="list-style-type: none"> <li>All plant, equipment and vehicles must be turned off when not in use.</li> </ul>	At all times	
C	8	<ul style="list-style-type: none"> <li>Where noise impacts are impacting amenity, corrective actions such as the substituting of machinery and equipment for less noisy equipment must be considered and implemented, where practicable.</li> </ul>	At all times	
C	9	<ul style="list-style-type: none"> <li>Noise attenuation measures must be used where assessed as practicable (i.e. screens, enclosures, barriers etc.)</li> </ul>	During construction or as required	

## 4.4 Emergency response

The Airport Coordination Centre (ACC) is the point of contact for all emergency calls across APAM and co-ordinate the required emergency response for the situation. Refer to Table 1 for contact details.

### 4.4.1 Spill response

All airside activities must adhere to the *Airside Operational Safety Policy - Spill Prevention and Response*.

In all areas, the following steps should be undertaken in the event of a spill:

- Take immediate action to **control** a chemical spill as soon as it is safe to do so (e.g. reposition a punctured drum to prevent further loss of containment; move leaking IBCs to a bunded area).
- Take action to **contain** the spill to stop the material entering stormwater drains, drainage lines or contaminating soil (e.g. seal nearby drains; apply spill kit materials to form a dam) [refer to Figures 2 and 3].
- **Report and notify:** Any spill greater than five litres, or spills that enter a waterway/drain or damage an environmentally significant area, must be reported immediately to the Airport Coordination Centre on (03) 9297 1601. The Airport Coordination Centre will contact the relevant personnel; including the Environment Department.
- **Clean up spill** and surrounding impacted areas and **dispose of clean up waste materials**. Depending on the material spilt and the clean-up methods employed, 'prescribed industrial waste' may be generated. Refer to Section 4.1 for waste management guidance.



**Figure 2: Example of spill kit contents being used to contain a leak**

Source: <http://www.censol.co.uk/spill-kits.html>



**Figure 3: Spill protection for drains**

Source:  
<https://www.globalspill.com.au/product/urethane-sand-filled-barrier-3-0m-long-pcbsfu3-0/>

### 4.4.2 Incident response and reporting

- All environmental incidents, near misses or hazards must be reported via the Safety Information Management System (SIMS) or directly to the APAM Environment Manager.
- All spills exceeding a volume of 5 litres or that enter a stormwater drain must be immediately reported to the Melbourne Airport Coordination Centre.
- An incident report must be provided to the APAM Environment Team within 48 hours of any environmental incident.

- Report all incidents internally regardless of the severity.
- Implement processes to ensure contractors, service providers, other people at work and visitors report all incidents internally regardless of the severity.
- Provide feedback to reporting parties, contractors, service providers and employees on the findings of incident investigations and incident trends relative to their area.
- Ensure the timely reporting of regulator-reportable incidents and preserve the incident site unless it is not safe to do so.<sup>1</sup>
- Ensure incidents are investigated by the responsible parties, for the purposes of identifying corrective actions and preventing reoccurrence.

For further information on incident reporting and investigation refer to the *APAC Safety Management Standard*.

## 4.5 Complaints handling

Feedback from the public can take several forms, including:

- Phone calls;
- Email correspondence;
- Direct conversation;
- Social media (Twitter / Facebook); or
- Web contact form.

If you receive any queries or complaints regarding environmental matters:

- Encourage the person to contact Melbourne Airport directly (Google Search 'contact us Melbourne Airport'). Feedback is then distributed to the relevant internal manager/staff who will respond.
- If the person does not want to use the web contact form, get their details and a clear understanding of what their concern is, then pass on this information to the APAM Environment Manager.

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<sup>1</sup> <https://www.melbourneairport.com.au/getattachment/Corporate/About-us/Safety/APAC-Safety-Management-Standard-20170701-PUBLIC-VERSION.PDF.aspx?lang=en-AU>

## 5.0 ENVIRONMENTAL MANAGEMENT REQUIREMENTS FOR APAM'S ROUTINE OPERATIONS AND ACTIVITIES

### 5.1 Storage and handling of fuels and chemicals

D - Storage and handling of fuels and chemicals				
Objectives		<ul style="list-style-type: none"> <li>■ To comply with regulatory requirements relating to the storage and handling of fuels and chemicals.</li> <li>■ To minimise impacts on the environment associated with storage, transport, use and handling of dangerous goods and hazardous materials.</li> <li>■ To prevent and minimise environmental impacts following a spill event.</li> <li>■ To reduce the use of hazardous substances.</li> </ul>		
Specific legislation/ regulation /guidance		<ul style="list-style-type: none"> <li>■ Airports Act 1996 (Cth)</li> <li>■ Airports (Environment Protection) Regulations 1997 (Cth)</li> <li>■ Victorian Dangerous Goods Act 1985</li> <li>■ Dangerous Goods (Storage and Handling) Regulations 2012</li> <li>■ Occupational Health and Safety Act 2004 and Occupational Health and Safety Regulations 2007</li> <li>■ Australian Standard AS1940 - 2017 Storage and Handling of Flammable and Combustible Liquids.</li> </ul>		
Control ID		Required environmental management measures		
General			Timing	Reference
D	1	<ul style="list-style-type: none"> <li>■ The storage, use and handling of all chemicals including dangerous goods, fuels, hazardous substances and wastes must be in accordance with relevant legislation</li> </ul>	At all times	
D	2	<ul style="list-style-type: none"> <li>■ Permanent chemical storage areas must not be located within 20m of sensitive areas such as waterways or native vegetation.</li> </ul>	At all times	Ecology mapping (refer Environment Team)



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D - Storage and handling of fuels and chemicals				
D	3	<ul style="list-style-type: none"> <li>Chemical storage areas must include secondary containment controls such as permanent or portable bunding in accordance with relevant regulatory requirements as contained in the <i>Code of Practice for the Storage and Handling of Dangerous Goods</i> or Australian Standard AS1940 - 2017 <i>Storage and Handling of Flammable and Combustible Liquids</i>.</li> </ul>	At all times	Figures 4 to 6
D	4	<ul style="list-style-type: none"> <li>Frequent chemical use and handling areas must be located on impervious hardstand with appropriate bunding so any spills can be confined and cleaned up.</li> </ul>	At all times	
D	5	<ul style="list-style-type: none"> <li>Spill kits must be readily available and relevant personnel trained in their use.</li> </ul>	At all times	
D	6	<ul style="list-style-type: none"> <li>All chemical spills must be cleaned up and any resulting waste material must be contained and disposed of at an appropriately licensed facility.</li> </ul>	At all times	Section 4.4.1
Chemical storage			Timing	Reference
D	7	<ul style="list-style-type: none"> <li>All chemicals are to be stored in appropriate sealed and labelled containers.</li> </ul>	At all times	
D	8	<ul style="list-style-type: none"> <li>Hard copies of the relevant SDS must be available within each work area where chemicals are stored.</li> </ul>	At all times	
D	9	<ul style="list-style-type: none"> <li>The storage of any hazardous materials must be carried out in accordance with storage instructions provided in the SDS, on labels and as per regulatory requirements, and in accordance with applicable technical standards or other relevant product information.</li> </ul>	At all times	

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D - Storage and handling of fuels and chemicals				
D	10	<ul style="list-style-type: none"> <li>Chemical and fuel storages must be bunded so that the capacity of the bund is sufficient to contain at least 110% of the volume stored. Where installation of bunding in accordance with this specification cannot be implemented, alternative equivalent controls to the satisfaction of the APAM Environment Team must be installed.</li> </ul>	At all times	
D	11	<ul style="list-style-type: none"> <li>Fuel and chemical containers or fuel containing equipment such as generators must be transported on spill trays.</li> </ul>	At all times	
D	12	<ul style="list-style-type: none"> <li>Fuel containing equipment such as generators or pumps must be self-bunded or located within a bunded area.</li> </ul>	At all times	
Refuelling controls			Timing	Reference
D	13	<ul style="list-style-type: none"> <li>Plant, equipment and vehicles must be refuelled within designated refuelling areas. Where practicable, refuelling areas must not be located within 20m of any drainage inlet or open drain/drainage line. Where this separation distance cannot be maintained, drain seals must be in place prior to refuelling activity.</li> </ul>	At all times	
D	14	<ul style="list-style-type: none"> <li>Refuelling areas must be located on impervious hardstand with appropriate bunding and, where practicable, be graded to a spill collection point.</li> </ul>	At all times	
Control of fuel / chemical leaks from plant, vehicles and equipment			Timing	Reference
D	15	<ul style="list-style-type: none"> <li>All vehicles, plant and equipment must be maintained in accordance with manufacturer's specifications and kept in good working order.</li> </ul>	At all times	
D	16	<ul style="list-style-type: none"> <li>Daily start up checks must be undertaken on all plant, equipment and vehicles (including leaks/spill checks).</li> </ul>	At all times	
D	17	<ul style="list-style-type: none"> <li>All scheduled maintenance activities must be undertaken within designated workshop areas. Any in-field maintenance or refilling / refuelling required should utilise small volumes to limit the quantity of material that could be potentially spilt.</li> </ul>	At all times	

D - Storage and handling of fuels and chemicals				
Dangerous goods storage, use and handling			Timing	Reference
D	18	<ul style="list-style-type: none"> <li>Secondary containment including bunding must be in accordance with relevant regulatory requirements as contained in the <i>Code of Practice for the Storage and Handling of Dangerous Goods</i> or Australian Standard AS1940 - 2017 <i>Storage and Handling of Flammable and Combustible Liquids</i>.</li> </ul>	At all times	
D	19	<ul style="list-style-type: none"> <li>Quantities of hazardous materials stored must be kept to a minimum, commensurate with their usage and shelf life.</li> </ul>	At all times	
D	20	<ul style="list-style-type: none"> <li>A register for dangerous goods stored and handled on site must be maintained. It must record the location, volume and types of hazardous materials stored and be updated when a new dangerous good is introduced to the premises; when the use of an existing dangerous good is discontinued, and upon revision of the provided SDS.</li> </ul>	At all times	Refer to template in Appendix E

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**Figure 4: Bunding example 1**

Source: pp. 29  
[http://www.worksafe.vic.gov.au/\\_\\_data/assets/pdf\\_file/0005/118436/Code-of-Practice-for-the-Storage-and-Handling-of-Dangerous-Goods.pdf](http://www.worksafe.vic.gov.au/__data/assets/pdf_file/0005/118436/Code-of-Practice-for-the-Storage-and-Handling-of-Dangerous-Goods.pdf)



**Figure 5: Bunding example 2**

Source: pp. 29  
[http://www.worksafe.vic.gov.au/\\_\\_data/assets/pdf\\_file/0005/118436/Code-of-Practice-for-the-Storage-and-Handling-of-Dangerous-Goods.pdf](http://www.worksafe.vic.gov.au/__data/assets/pdf_file/0005/118436/Code-of-Practice-for-the-Storage-and-Handling-of-Dangerous-Goods.pdf)



**Figure 6: Bunding example 3**

Source: <https://bestbundling.com/pages/bund-wall-design-and-construction>



**Figure 7: Bunding example 4**

Source: <https://omnituff.com/shop/retain/dangerous-goods-storage/collapsible-bunding/collapsible-bunding-custom-sizes-available/>

## 5.2 Management of excavated soil

E – Excavated soil management				
Objectives		<ul style="list-style-type: none"> <li>■ Maximise potential for reuse</li> <li>■ Minimise potential environmental impacts of poor management</li> </ul>		
Specific legislation/ regulation /guidance		<ul style="list-style-type: none"> <li>■ National Environment Protection (Assessment of Site Contamination) Measure, 1999</li> <li>■ Airports Act 1996 (Cth)</li> <li>■ Airports (Environment Protection) Regulations 1997 (Cth)</li> <li>■ PFAS National Environmental Management Plan, January 2018</li> <li>■ Melbourne Airport PFAS Management Framework, August 2019</li> </ul>		
Control ID		Required environmental management measures	Timing	Reference
E	1	<ul style="list-style-type: none"> <li>■ Excavation must be carried out in a way which keeps topsoils and underlying soils separate to prevent the potential contamination of subsoils.</li> </ul>	During construction	
E	2	<ul style="list-style-type: none"> <li>■ As far as practicable, reduce the volume of waste spoil generated from earthworks</li> </ul>	Planning/ prior to construction	
E	3	<ul style="list-style-type: none"> <li>■ Reinstatement of generated spoil on site at the conclusion of ground disturbing work wherever possible. After reinstatement of spoil, the ground surface must be stabilised.</li> </ul>	Rehabilitation stage	
E	4	<ul style="list-style-type: none"> <li>■ Spoil which requires off-site disposal must first be tested and classified to confirm suitability for off-site disposal. Once test results are obtained, results must be provided to the APAM Environment Team. Following approval from the APAM Environment Team, the material can be disposed of to an appropriately licenced waste facility in accordance with regulatory requirements.</li> </ul>	During construction	
E	5	<ul style="list-style-type: none"> <li>■ Any volume of spoil that cannot be reinstated or otherwise accommodated on site (as determined through consultation with APAM Environment Team), must be temporarily stockpiled.</li> </ul>	At all times	

E – Excavated soil management				
Soil stockpile management			Timing	Reference
E	6	■ Stockpile dimensions must achieve a maximum 2:1 width to height ratio.	At all times	
E	7	■ The number and size of stockpiles must be minimised as far as practicable.	At all times	
E	8	■ Stockpiles must be placed at least 20m away from drainage inlets, open drains and water courses, unless otherwise approved in writing by the APAM Environment Team.	At all times	
E	9	■ Stormwater must be diverted around stockpiles.	At all times	
E	10	■ Sediment retention structures must be placed downslope of any stockpile.	At all times	
E	11	■ Stockpiles must be managed to reduce the risk of bird attraction.	At all times	
E	12	■ Stockpiles must be stabilised to prevent erosion of material by wind and water.	Throughout construction	
E	13	■ Stockpiles in place for more than 7 days must be stabilised to prevent erosion of material by wind and water	As required	
E	14	■ Soil binder can be applied to stockpile surfaces or other exposed soils where surfaces are likely to remain exposed for over 7 days.	At all times	

## 5.3 Erosion and Sediment Control

F - Erosion and Sediment Control				
Objectives		<ul style="list-style-type: none"> <li>■ To minimise erosion of disturbed areas by wind and water during activities involving earthworks and other ground disturbing activities.</li> <li>■ To prevent surface water quality impacts resulting from erosion and sediment transport from disturbed areas and stockpiles.</li> <li>■ To maximise site stability and revegetation opportunities.</li> </ul>		
Specific legislation/ regulation /guidance		<ul style="list-style-type: none"> <li>■ Airports Act 1996 (Cth)</li> <li>■ Airports (Environment Protection) Regulations 1997 (Cth)</li> <li>■ State Environmental Planning Policy (Waters of Victoria)</li> </ul>		
Control ID		Required environmental management measures	Timing	Reference
F	1	<ul style="list-style-type: none"> <li>■ Weather forecasts must be considered when planning earthwork and ground disturbing activities. Where practicable, earthwork and ground disturbing activities must be avoided during periods of heavy rainfall or high winds.</li> </ul>	Planning and at all times of construction / activity	
F	2	<ul style="list-style-type: none"> <li>■ Earthwork and ground disturbing activities must be planned and staged to reduce the duration and extent of exposed soils.</li> </ul>	Planning and at all times of construction / activity	
F	3	<ul style="list-style-type: none"> <li>■ Disturbed areas must be reinstated as soon as practicable with ground cover / surfacing suitable for the site conditions (e.g. size of area to be stabilised; topography; soil type; and duration of work). At least 70% ground cover (combined plant and mulch) is considered necessary to provide satisfactory erosion control.</li> </ul>	At all times	
F	4	<ul style="list-style-type: none"> <li>■ Choice and specification of all sediment control measures must be fit for purpose and appropriate for the intended application. Refer to Table 6.</li> </ul>	At all times	

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F - Erosion and Sediment Control				
F	5	<ul style="list-style-type: none"> <li>All sediment control measures must be maintained for the duration of activity and until the site is stabilised.</li> </ul>	At all times	
F	6	<ul style="list-style-type: none"> <li>All sediment controls are to be inspected:                             <ul style="list-style-type: none"> <li>At least daily when rain is occurring;</li> <li>At least weekly (even if work is not occurring); and</li> <li>24hrs prior to expected rainfall.</li> </ul> </li> </ul>	At all times	
F	7	<ul style="list-style-type: none"> <li>Design and install erosion and sediment run-off control measures appropriate to site conditions including topography and soil type. The design of controls must handle a one-in-two-year storm event (two-year ARI with intensity of six hours) for temporary structures, and a one-in-fifty year storm event, for permanent structures.</li> </ul>	Planning	
F	8	<ul style="list-style-type: none"> <li>Acceptable temporary erosion and sediment structures include (but are not limited to) combinations of one or more of the following types, dependent upon the required application:                             <ul style="list-style-type: none"> <li>soil binders;</li> <li>geotextile silt fences;</li> <li>earth bunds;</li> <li>mulch filters;</li> <li>biodegradable logs (coir logs);</li> <li>rock check dams;</li> <li>grass filter strips; or</li> <li>gravel sausages.</li> </ul>                             Refer to Table 6 for guidance on temporary erosion and sedimentation control selection.                         </li> </ul>	Planning	Table 6 Figures 8 to 11
F	9	<ul style="list-style-type: none"> <li>For large scale works or works of a long duration (&gt;1 month+), more permanent sediment controls may be required, such as sediment basins. These must be designed by a suitably qualified engineer based on guidance information from IECA Best Practice Erosion and Sediment Control.</li> </ul>	At all times	



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F - Erosion and Sediment Control				
F	10	<ul style="list-style-type: none"> <li>Prior to the commencement of ground disturbing work, any stormwater pits, drains or any open channels in close proximity must be protected.</li> </ul>	At all times	
F	11	<ul style="list-style-type: none"> <li>Storm water pits along established roadways subject to sediment deposits must be fitted with appropriate sediment controls, such as kerb inlet protectors or (geofabric) filter material to capture sediments, and gully inlet pit baskets.</li> </ul>	At all times	
F	12	<ul style="list-style-type: none"> <li>Silt loads must be treated as close to their source as possible using effective sediment traps.</li> </ul>	At all times	
F	13	<ul style="list-style-type: none"> <li>A water truck for dust suppression must be used to reduce the surface and air transport of fine sediment during ground disturbing works.</li> </ul>	As required	
F	14	<ul style="list-style-type: none"> <li>Soil binder can be applied for dust suppression where exposed surfaces are likely to remain so for over 7 days.</li> </ul>	At all times	
F	15	<ul style="list-style-type: none"> <li>Erosion and sediment controls must be positioned so as to prevent stormwater runoff from flowing over disturbed sites.</li> </ul>	As required	
F	16	<ul style="list-style-type: none"> <li>Erosion and sediment controls must be positioned to minimise the ingress of stormwater to excavations to reduce requirements for dewatering of excavations.</li> </ul>	At all times	
Control of sediment during dewatering				
F	17	<ul style="list-style-type: none"> <li>No sediment laden water is to enter a drainage line, stormwater drain or watercourse. Sediment laden water accumulated in trenches or excavations, must not be applied to land unless agreed to in writing by the APAM Environment Team.</li> </ul>	At all times	Environmental mapping (refer Environment Team)
F	18	<ul style="list-style-type: none"> <li>Where excavation depths are likely to intercept groundwater, a Dewatering Plan must be prepared prior to the commencement of work to outline the following:               <ul style="list-style-type: none"> <li>- An understanding of the underlying hydrology (water levels, flow direction and rates, groundwater quality); and</li> </ul> </li> </ul>	Planning/ approvals stage	

## F - Erosion and Sediment Control

		<ul style="list-style-type: none"><li>- A description and justification for the proposed dewatering effluent disposal method.</li></ul> <p>The Dewatering Plan will require APAM Environment Team review and approval prior to commencement of dewatering works.</p>		
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**Table 6: Potential erosion and sediment control measures**

Notes:

- This is a short list of devices that may be suitable. For more information refer to IECA guidelines and / or contact an environmental specialist for guidance.
- Straw bales are **not** a recommended sediment control measure at Melbourne Airport. Hay bales quickly lose their strength once wet, and readily fail if poorly installed and/or poorly maintained.

Erosion and sediment control	Description and application	Benefits	Disadvantages	Ongoing management requirements	Application parameters		
					Size of catchment	Suitable topography	Project duration
Silt fence	<p>Silt fences are temporary, permeable barriers of geo-textile installed in a trench and supported by star pickets or wooden posts.</p> <p>Silt fences slow the velocity of run-off, and offer some filtration as run-off passes through the silt fence.</p>	Silt fences are an easy and cheap measure to install for large distances, e.g. if an entire, down-slope side of a site must be protected. Can be reinforced.	Can only be used in areas of sheet flow. Not suitable for use in concentrated flow. Most effective in removing coarse particulates from run-off. Have limited filtering capacity of fine or dispersive soils. Must be installed correctly to be effective.	Require de-silting when sediment has built up to $\frac{1}{3}$ the height of fence or when collected sediment is preventing effective operation.	Suitable for small and large sites	Flat - moderately sloping sites.	Good longevity if well maintained
Coir logs	Coir logs are comprised of the fibre obtained from the husks of coconuts. They slow the velocity of run-off and offer some filtration. Predominately used in areas of concentrated flow. Also, frequently used for creek bed stabilisation. They may also be used to protect drainage inlets.	Relatively cheap. These have longevity up to 5 years.	<p>Necessary to strip an area beneath the log to ensure firm contact with the ground.</p> <p>They're most effective in removing coarse particulates. They have limited filtering capacity for fine or dispersive soils. Must be installed correctly to be effective.</p>	Coir logs require de-silting when sediment has built up to $\frac{1}{3}$ the height of the measure, or when the built-up sediment is preventing the coir log from working effectively. Logs will require replacing when they become clogged with trapped sediment.	Best application for drainage lines and drain protection.	Flat - moderately sloping sites.	Good longevity if well maintained

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Erosion and sediment control	Description and application	Benefits	Disadvantages	Ongoing management requirements	Application parameters		
					Size of catchment	Suitable topography	Project duration
Rock check dams	A permeable bund constructed from suitably sized rock. Predominantly used in areas of concentrated flow.	Achieve effective dissipation of concentrated flow.	Rock bunds are most effective in removing coarse particulates. They have limited filtering capacity for fine or dispersive soils.		For large catchment areas specifically where high volumes of run-off are to be encountered/.	Moderate to sloping.	Suitable for longer duration projects.
Grass filter strips	Turf strips can be used as an erosion control (prevention of erosion beneath the turf) and to slow the velocity of run-off and offer filtration as run-off passes through the grass.	Including grass filter strips can be a cost-effective way to promote the stabilisation and revegetation of large areas through seeding.	Strips must be placed correctly. Will not function if water flow is allowed to concentrate through grass. Must be placed to avoid rill erosion caused by surface runoff being diverted along the upslope edge of the turf.	Water grass strips wherever possible to maintain healthy and vigorous growth.  Inspect after each run-off event and check for concentrated rill erosion forming along the upper edge of the turf. Alternative diagonal turf strips may be required upslope of the edge of the turf to prevent rill erosion. Alternatively, sandbags can be used to divert runoff through grass.	Small/ localised catchment areas	Moderate to sloping.	Suitable for longer duration projects.

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Erosion and sediment control	Description and application	Benefits	Disadvantages	Ongoing management requirements	Application parameters		
					Size of catchment	Suitable topography	Project duration
Gravel sausages / rock logs	These are most commonly used to protect kerb inlets. They are used to dam run-off behind the gravel sausage, and slow velocity of run-off so sediment falls out of suspension. Some filtration also occurs as run-off passes through the gravel sausage.	These are cost effective, portable and can be applied in a variety of ways to maximise effectiveness based on the configuration of the drains or features to be protected.	Will require desilting.	Gravel sausages require de-silting when sediment has built up to 1/3 the height of the measure, when the built-up sediment is preventing the log from working effectively, or when the sausage is clogged and run-off can no longer flow through it.	Small/ localised catchment areas	Best suited to flat areas	Good longevity if well maintained
Hemp/jute matting Erosion blanket	This matting can be placed over sloped areas to provide temporary scour protection from raindrop impact and sheet flow. Matting can also facilitate vegetation establishment at the conclusion of earth works and will naturally degrade.	Easy and effective way to protect sloped areas. In addition to sediment control these can prevent weed growth and have a longevity of 12-24 months.	Not suitable for moderate to high traffic areas.	Inspect after each rainfall event. Maintenance as required to repair washout, breakage, or reinstate matting.	Suitable for small and large sites	Moderate to sloping	Good longevity with minimal maintenance

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**Figure 8: Grass filter strip**

Source: <http://prj.geosyntec.com/npsmanual/vegetatedfilterstrips.aspx>



**Figure 9: Proper placement of silt fencing for slopes**

Source: <https://www.belairmd.org/362/Stormwater-Management>



**Figure 10: Silt fence failure**

Source: <https://ceds.org/esp.html>



**Figure 11: Coir Log example**

Source: <https://aussieenvironmental.com.au/product/coir-logs-1-5m-x-200mm/>

## 5.4 Surface water and stormwater

G – Surface water and stormwater					
Objectives		<ul style="list-style-type: none"> <li>■ To prevent the pollution of waterways.</li> <li>■ To increase the resilience of receiving waterways to airport stormwater flows by maintaining or improving waterway habitats.</li> </ul>			
Specific legislation/ regulation/ guidance		<ul style="list-style-type: none"> <li>■ Airports Act 1996 (Cth)</li> <li>■ Airports (Environment Protection) Regulations 1997 (Cth)</li> <li>■ Catchment and Land Protection Act 1994</li> <li>■ State Environmental Planning Policy (Waters of Victoria)</li> </ul>			
Control ID		Required environmental management measures			
General surface water controls				Timing	Reference
G	1	<ul style="list-style-type: none"> <li>■ Weather forecasts must be considered when planning earthwork and ground disturbing activities. Where practicable, earthwork and ground disturbing activities must be avoided during periods of heavy rainfall or high winds.</li> </ul>		Planning stage	
G	2	<ul style="list-style-type: none"> <li>■ If a major rainfall event is forecast while works are being undertaken in the vicinity of a watercourse, personnel must undertake a risk assessment and identify and undertake appropriate mitigation measures (i.e. the additional of further erosion and sediment controls; monitoring upstream flow conditions; reschedule activities etc.)</li> </ul>		Planning stage	
G	3	<ul style="list-style-type: none"> <li>■ Prior to the commencement of ground disturbing work, any stormwater pits, drains or any open channels in close proximity to work sites must be protected.</li> </ul>		Implementation / construction stage	
G	4	<ul style="list-style-type: none"> <li>■ Stormwater pits along established roadways subject to sediment deposits must be fitted with appropriate sediment controls to protect them from sediment and other pollutants.</li> </ul>		Implementation / construction stage	
G	5	<ul style="list-style-type: none"> <li>■ Stormwater must be diverted around work areas to prevent sedimentation and pollution.</li> </ul>		At all times	

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G – Surface water and stormwater				
G	6	<ul style="list-style-type: none"> <li>Routine visual inspections must be undertaken regularly while carrying out works within the vicinity of any watercourse to identify any sedimentation impacts.</li> </ul>	At all times	
Works within waterways and riparian areas			Timing	Reference
G	7	<ul style="list-style-type: none"> <li>Vegetation must not be cleared and fill must not be placed within 50m from any watercourse unless specifically assessed and approved through the APAM building approval process.</li> </ul>	At any time	
G	8	<ul style="list-style-type: none"> <li>A detailed environmental assessment and project specific EMP must be prepared for any project work required within the channel or banks of a waterway on Melbourne Airport land.</li> </ul>	Planning/ Approvals stage	
G	9	<ul style="list-style-type: none"> <li>All routine activities such as maintenance of existing stormwater infrastructure are to be carried out in accordance with approved plans and procedures.</li> </ul>	At all times	



## 5.5 Land and Groundwater Contamination

H – Land and groundwater contamination				
Objectives		<ul style="list-style-type: none"> <li>To prevent contamination of land and groundwater.</li> <li>To manage existing contamination issues in accordance with guidance issued from the Department of Infrastructure and Regional Development and in accordance with the PFAS National Environmental Management Plan</li> </ul>		
Specific legislation/ regulation/ guidance		<ul style="list-style-type: none"> <li>National Environment Protection (Assessment of Site Contamination) Measure, 1999</li> <li>Airports Act 1996 (Cth)</li> <li>Airports (Environment Protection) Regulations 1997 (Cth)</li> <li>PFAS National Environmental Management Plan, January 2018</li> </ul>		
Control ID		Required environmental management measures		
Bulk fuel storage controls			Timing	Reference
H	1	<ul style="list-style-type: none"> <li>All above ground storage tanks (ASTs) and underground storage tanks (USTs) and associated infrastructure must be included in a scheduled leak detection and repair (LDAR) program to ensure leaks and losses of stored fuels are identified and repaired as quickly as possible. This needs to occur with sufficient frequency, sensitivity and reliability to provide a high level of confidence that a release will be detected in sufficient time for a response to be implemented before a significant risk is posed to human health or the environment. For more detail, see EPA Victoria “<i>Guidance on underground petroleum storage systems in Victoria</i>” (Publication 888.4, August 2015)</li> </ul>	Ongoing	
H	2	<ul style="list-style-type: none"> <li>ASTs and USTs which are no longer used must be decommissioned so that they do not pose an on-going risk to the environment.</li> </ul>	At all times	
H	3	<ul style="list-style-type: none"> <li>Installation of best practice underground petroleum storage system (UPSS) infrastructure must be included for new tank installs and upgrades.</li> </ul>	Prior to new install	
H	4	<ul style="list-style-type: none"> <li>Where practicable, new tanks must be self-bunded and installed above ground.</li> </ul>	Prior to new install	

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H – Land and groundwater contamination				
H	5	<ul style="list-style-type: none"> <li>Copies of all LDAR results must be provided to APAM's Environment Team.</li> </ul>	Ongoing	
Control of imported materials to site			Timing	Reference
H	6	<ul style="list-style-type: none"> <li>Any fill material brought to site (including landscaping topsoil) must be free from contamination and have been appropriately assessed and classified as 'Fill Material' in accordance with the EPA Industrial Waste Resource Guidelines, Soil Hazard Categorisation and Management (IWRG 621) Guidelines. Origin of soil certificates are to be approved by the APAM Environment Team and available at all times on site to be reviewed.</li> </ul>	At all times	
H	7	<ul style="list-style-type: none"> <li>Imported soils, mulch and other vegetation supplies must be free of weeds, debris and other contaminants.</li> </ul>	At all times	
H	8	<ul style="list-style-type: none"> <li>All works and projects must aim to maximise the amount of excavated materials that are re-used on site, where practicable.</li> </ul>	At all times	
Contamination assessment requirements			Timing	Reference
H	9	<ul style="list-style-type: none"> <li>Prior to ground disturbing activities, the APAM Project Manager must review the Environmental Site Register to determine whether the project may affect or be affected by contaminated soils or groundwater.</li> </ul>	At all times	Environmental Site Register (refer Environment Team)
H	10	<ul style="list-style-type: none"> <li>An environmental assessment must be conducted by a suitably qualified consultant and a detailed spoil management plan prepared for substantial works requiring earthwork and spoil generation across contaminated or potentially contaminated areas.</li> </ul>	At all times	
H	11	<ul style="list-style-type: none"> <li>The scope of the environmental assessment and detailed spoil management plan is to be discussed and determined in consultation with the APAM Environment Team.</li> </ul>	At all times	
Contaminated spoil management			Timing	Reference
H	12	<ul style="list-style-type: none"> <li>If works uncover an area of suspected or actual contamination, works must cease and the site made secure to enable an inspection and assessment of contamination levels.</li> </ul>	At all times	

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H – Land and groundwater contamination				
H	13	<ul style="list-style-type: none"> <li>If earthwork or other ground disturbing activities are required within an area of known or suspected soil contamination, the Project Manager is required to consult with the APAM Environment Team to determine how spoil management should proceed.</li> </ul>	At all times	
H	14	<ul style="list-style-type: none"> <li>In some instances, where volumes are small <b>and</b> concentration of soil contaminants are known, APAM's Environment Team will advise that the appropriate spoil management strategy is to reinstate the spoil, prior to land being stabilised.</li> </ul>	At all times	
H	15	<ul style="list-style-type: none"> <li>As far as possible, generated contaminated spoil should be reinstated on site.</li> </ul>	At all times	
H	16	<ul style="list-style-type: none"> <li>Contaminated spoil is not to be removed from site until waste classification sampling has been carried out, and the APAM Environment Team approves off-site disposal. Off-site disposal must be undertaken in accordance with regulatory requirements.</li> </ul>	At all times	
H	17	<ul style="list-style-type: none"> <li>Contaminated soil/materials must be kept separate from other soil/materials to prevent cross-contamination.</li> </ul>	At all times	
H	18	<ul style="list-style-type: none"> <li>If material requires temporary stockpiling, stockpiles must be located away from defined drainage/runoff sites, made stable and contained on site utilising bunding or silt control methods (straw bales/silt control fencing). If rain or windy conditions are forecast, stockpiles should be covered to prevent the infiltration of rain water and to reduce erosion by wind.</li> </ul>	At all times	
H	19	<ul style="list-style-type: none"> <li>Spoil that cannot be reinstated or otherwise accommodated on site (as determined through consultation with APAM Environment Team) must be classified and disposed of to an appropriately licenced waste facility in accordance with regulatory requirements.</li> </ul>	At all times	
H	20	Safe Work Method Statements for the project or activity should include controls for working with potentially contaminated soils.	At all times	
Contaminated stockpile management			Timing	Reference
H	21	<ul style="list-style-type: none"> <li>The stockpiling of contaminated materials on site is only permitted on Melbourne Airport as a short term measure for the storage and management of contaminated spoil whilst material is classified prior to disposal. If a contaminated spoil stockpile is required to remain on site for over 14 days, the</li> </ul>	At all times	

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H – Land and groundwater contamination				
		APAM Department Manager or Project Manager must advise the APAM Environment Team in writing as to management controls in place and revised timing for removal.		
H	22	<ul style="list-style-type: none"> <li>Contaminated stockpiles are not to have water applied as a dust suppressant unless approved in writing by the APAM Environment Team.</li> </ul>	At all times	
Management of contaminated water from dewatering activities			Timing	Reference
H	23	<ul style="list-style-type: none"> <li>Where excavation depths are likely to intercept groundwater, a Dewatering Plan must be prepared prior to the commencement of work to outline the following:               <ul style="list-style-type: none"> <li>An understanding of the underlying hydrology (water levels, flow direction and rates, groundwater quality); and</li> <li>A description and justification for the proposed dewatering effluent disposal method.</li> </ul> </li> </ul> <p>The Dewatering Plan will require APAM Environment Team review and approval prior to commencement of dewatering works.</p>	Planning/ approvals stage	
H	24	<ul style="list-style-type: none"> <li>If groundwater is unexpectedly encountered during works, the Project Manager is required to consult with the APAM Environment Team to determine how water management should proceed.</li> </ul>	As required	
PFAS Management Procedure			Timing	Reference
H	25	<ul style="list-style-type: none"> <li>For all works in areas of known or suspected PFAS contamination, the Melbourne Airport PFAS Management Framework must be followed. A draft version of the PFAS Management Framework is included in APPENDIX F. This document is expected to be finalised in September 2019.</li> </ul>	At all times	APPENDIX F
H	26	<ul style="list-style-type: none"> <li>The Project Manager is responsible for completing the Compliance Statement Form (see Appendix A of the PFAS Management Framework) and providing this to the APAM Environment Team for approval prior to the management of PFAS impacted soil, water or slurry.</li> </ul>	At all times	APPENDIX F
H	27	<ul style="list-style-type: none"> <li>Decontamination of machinery and equipment should be undertaken prior to leaving the work site. Controls that can be implemented include:</li> </ul>	At all times	APPENDIX F

H – Land and groundwater contamination				
		<ul style="list-style-type: none"><li>- brushing down of machinery and equipment, ensuring that all residual soil is contained within the project area or approved stockpile location; or</li><li>- washing down of machinery and equipment in a lined and bunded area.</li></ul> <p>Any water or soil generated by decontamination activities must be considered as PFAS impacted and managed in accordance with the Melbourne Airport PFAS Management Framework.</p>		

## 5.6 Flora and fauna

I – Flora and fauna				
Objectives		<ul style="list-style-type: none"> <li>■ To preserve, maintain and restore natural areas on the airport, with a focus on enhancing environmentally significant areas such as wetlands, waterways and areas of native vegetation including grasslands and the grey box woodland.</li> <li>■ To achieve effective management of important habitat values through the implementation of Melbourne Airport's <i>Biodiversity and Conservation Management Plan</i>.</li> <li>■ To reduce the spread of pest plants and animals.</li> </ul>		
Specific legislation/ regulation/ guidance		<ul style="list-style-type: none"> <li>■ Airports (Environment Protection) Regulations 1997 (Cth)</li> <li>■ Airports Act 1996 (Cth)</li> <li>■ Environment Protection and Biodiversity Conservation Act 1999 (Cth)</li> <li>■ Environment Protection and Biodiversity Conservation Regulations 2000 (Cth)</li> <li>■ Catchment and Land Protection Act 1994 (Vic)</li> <li>■ Wildlife Act 1975</li> </ul>		
Control ID		Required environmental management measures		
General flora and fauna controls			Timing	Reference
I	1	<ul style="list-style-type: none"> <li>■ Prior to any works commencing the Environmental Site Register must be reviewed to determine whether the project is to be undertaken in an area that has, or potentially has, significant flora and fauna features.</li> </ul>	At all times	Ecology Mapping (refer Environment Team)
I	2	<ul style="list-style-type: none"> <li>■ Removal or disturbance of native flora and fauna must be avoided as far as possible. Where it is unavoidable, approvals and/or permits will be required. This should be identified as early in the project as possible.</li> </ul>	At all times	

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I – Flora and fauna				
I	3	■ To avoid injury to fauna, all plant, vehicles and equipment must stay within designated areas/ roadways/ access tracks and must comply with any location specific speed limits.	At all times	
I	4	■ If fauna are encountered within work zones, work that may cause harm to the animal will be stopped until the animal has moved on of its own accord.	At all times	
I	5	■ Excavations are to be covered if left overnight to prevent fauna becoming trapped, or suitable escape ramp installed in case of entrapment.	At all times	
I	6	■ If fauna requires relocation, a qualified wildlife handler will need to be contacted. Refer to the APAM Environment Team.	At all times	
I	7	■ Contact the APAM Environment Team in the event of encountering sick or injured wildlife.	At all times	
I	8	■ Damage to vegetated areas adjacent to site should be avoided. If damage to adjacent vegetation occurs, advice on remediation must be sought from the APAM Environment Team.	At all times	
I	9	■ Work areas must be managed to reduce the risk of bird attraction.	At all times	
Bushfire prevention			Timing	Reference
I	9	■ When working in heavily vegetated areas of Melbourne Airport, Project Managers must monitor bushfire weather forecasting and forewarning systems during bushfire risk periods. This is of particular relevance where hot works are permitted.	At all times	
I	10	■ Flammable material must not be stockpiled or stored near hot works activities (including vegetation stockpiles).	At all times	
Physical protection of flora and fauna during work			Timing	Reference
<b>Vegetation Protection Zones (VPZ)</b>				
I	11	■ Vegetation Protection Zones (VPZ) must be established to protect all significant flora, fauna and habitat on or adjacent to the work site. The following controls will be required where the	At all times	

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I – Flora and fauna				
		requirement for a VPZ has been identified as part of the project approval process or any specific permit condition:		
I	12	■ Each VPZ must be established prior to works.	At all times	
I	13	■ A representative of the APAM Environment Team must sign off on the VPZ before works can proceed. In some cases, verification of the VPZ location by a suitably qualified ecologist may be required.	At all times	
I	14	■ Vegetation protection fencing must be erected around native vegetation and protected fauna habitat to be retained.	At all times	
I	15	■ Vegetation protection fencing must be clearly signed with " <b>Vegetation Protection Area - No Unauthorised personnel, Materials or Equipment beyond this point</b> ".	At all times	
I	16	■ Vegetation protection fencing must be installed from the construction site side with all waste materials removed immediately. Vegetation inside the zone must not be impacted by the installation (or removal) of fencing.	At all times	
I	17	■ VPZ can only be accessed by suitably qualified personnel for the purpose of approved maintenance or inspections (i.e. weed control).	At all times	
I	18	■ Vegetation protection fencing must be monitored and repairs made immediately.	At all times	
I	19	■ Vegetation protection fencing is not to be removed or relocated without prior approval from the APAM Environment Team.	At all times	
I	20	■ VPZ fencing and signage must be maintained for the duration of the works.	At all times	
<b>Tree Protection Zones (TPZs)</b>			Timing	Reference
I	21	■ Tree Protection Zones (TPZs) must be established to protect all trees to be retained on, or adjacent to the site.	At all times	



I – Flora and fauna				
I	22	<ul style="list-style-type: none"> <li>The radius of a TPZ is calculated by multiplying the trunk diameter at breast height (measured at 1.4m from the ground) by 12. A TPZ must have a minimum radius of 2m.</li> </ul> $TPZ = \pi \times (DBH \times 12)^2$	At all times	
I	23	<ul style="list-style-type: none"> <li>A TPZ must be delineated by vegetation protection fencing e.g. star pickets with safety flagging.</li> </ul>	At all times	
I	24	<ul style="list-style-type: none"> <li>There must be no disturbance within a TPZ and no damage to the bark, roots and limbs of trees and shrubs to be retained.</li> </ul>	At all times	
I	25	<ul style="list-style-type: none"> <li>Trenching must not occur within the dripline of trees with a diameter of 10cm or higher (taken at 1.4m from ground).</li> </ul> <p>Dripline = the area of ground defined by the outermost circumference of a tree canopy where water drips onto the ground.</p>	At all times	
I	26	<ul style="list-style-type: none"> <li>An approved tree management plan is required for retained trees and any work within the vicinity of these trees.</li> </ul>	At all times	
Vegetation removal			Timing	Reference
I	27	<ul style="list-style-type: none"> <li>All tree and vegetation removal works must be in accordance <i>with Melbourne Airport Removal and Replacement of Vegetation on Airport Property Procedure</i> (EMS Document No. PP010).</li> </ul>	At all times	
I	28	<ul style="list-style-type: none"> <li>Where possible, habitat trees and features such as hollow logs must be retained.</li> </ul>	At all times	
I	29	<ul style="list-style-type: none"> <li>Salvage native vegetation approved for removal and use in any associated landscaping or reinstatement works where practicable.</li> </ul>	At all times	
I	30	<ul style="list-style-type: none"> <li>Roots and limbs must only be removed by suitably qualified personnel.</li> </ul>	At all times	
I	31	<ul style="list-style-type: none"> <li>Ensure all relevant permits and offsets are obtained prior to vegetation removal.</li> </ul>	At all times	

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I – Flora and fauna				
I	32	<ul style="list-style-type: none"> <li>Where required approvals and permits have been obtained to remove significant vegetation, the specific environmental management measures contained within the environmental assessment and permit conditions are to be applied in addition to the measures within this EMP.</li> </ul>	At all times	
I	33	<ul style="list-style-type: none"> <li>Ensure all measures are taken to encourage native fauna to relocate from the area prior to vegetation removal work. Unless otherwise stipulated in the environmental assessment and permit conditions, in grassland, this would include slashing grasslands one week prior to removal to a height to 15cm, then again two days prior to removal, to 3cm.</li> </ul>	At all times	
I	34	<ul style="list-style-type: none"> <li>Suitably qualified personnel may be required to be present during removal of trees, native vegetation and other potential animal habitat.</li> </ul>	At all times	
Revegetation of disturbed land			Timing	Reference
I	35	<ul style="list-style-type: none"> <li>All APAM project site rehabilitation and revegetation works are to proceed in accordance with an approved landscape/revegetation plan for that project. This plan will provide a detailed methodology for revegetation work to be carried out. It will incorporate considerations of approved plant species for Melbourne Airport land, and will incorporate any tree replacement requirements determined for the project.</li> </ul>	At all times	
I	36	<ul style="list-style-type: none"> <li>Revegetation works are to be undertaken for all work areas that are impacted.</li> </ul>	At all times	
I	37	<ul style="list-style-type: none"> <li>Rehabilitation and revegetation works must be undertaken progressively.</li> </ul>	At all times	
I	38	<ul style="list-style-type: none"> <li>Adequate stabilisation must be maintained across disturbed surfaces until plant cover is established.</li> </ul>	At all times	
I	39	<ul style="list-style-type: none"> <li>Topsoil removed and stockpiled at the commencement of work must be replaced to maximise the potential for native vegetation recovery.</li> </ul>	Rehab/ reinstatement of site	
I	40	<ul style="list-style-type: none"> <li>Following topsoil replacement grass seeding should be conducted to re-establish grass cover. Hydroseeding is the recommended method, however other methods such as direct seeding can be used. The approved grass species mix for seeding is made up of the following:</li> </ul>	Rehab/ reinstatement of site	

I – Flora and fauna				
		<ul style="list-style-type: none"> <li>- 50% Sheeps Fescue</li> <li>- 25% Creeping Red Fescue</li> <li>- 25% Vic Perennial Rye</li> </ul>		
I	41	<ul style="list-style-type: none"> <li>■ Where possible, seeding should not be conducted during summer months. Where seeding must occur during summer, seeded areas must be adequately watered to ensure appropriate growth will be established.</li> </ul>	Rehab/ reinstatement of site	
I	42	<ul style="list-style-type: none"> <li>■ For all airside projects, hydroseeding must be followed by application of a separate binder product, with a preference for alternative products to bitumen emulsion. <i>Vital Bon-Matt Stonewall</i> has been approved for use by the APAM Environment Team. Approval must be sought from the APAM Environment Team where an alternative product is to be used.</li> </ul>	Rehab/ reinstatement of site	
I	43	<ul style="list-style-type: none"> <li>■ Seeded areas must be monitored and watered regularly to ensure establishment rates are adequate.</li> </ul>	Rehab/ reinstatement of site	
Weed and pest control			Timing	Reference
I	44	<ul style="list-style-type: none"> <li>■ Work zones must be regularly inspected by a suitably qualified person for presence of noxious or invasive weeds.</li> </ul>	Throughout construction	
I	45	<ul style="list-style-type: none"> <li>■ Work zones must be kept free from weeds for the duration of the works, reinstatement and any maintenance period.</li> </ul>	At all times	
I	46	<ul style="list-style-type: none"> <li>■ Any weed infestations must be controlled within the designated work site</li> </ul>	At all times	
I	47	<ul style="list-style-type: none"> <li>■ Weed prevention measures must be undertaken, including the following;               <ul style="list-style-type: none"> <li>- All personnel must be trained in issues relating to weed hygiene during the site induction.</li> <li>- Slashing must not occur when targeted weeds are setting seed.</li> </ul> </li> </ul>	At all times	

I – Flora and fauna				
		<ul style="list-style-type: none"> <li>- Shade-cloth must be installed on perimeter fencing to prevent spread of wind-blown weed seeds where practicable.</li> <li>- Work must be planned and undertaken in the sequence of low to high risk weed presence.</li> </ul>		
I	48	<ul style="list-style-type: none"> <li>■ Weed and pest removal activities must be done in accordance with the following;               <ul style="list-style-type: none"> <li>- Use of any materials (i.e. herbicides, pesticides etc.) must be in accordance with the manufacturer's instructions.</li> <li>- Weed and pest control to be undertaken by suitably qualified personnel.</li> <li>- Herbicide/pesticide use in or adjacent to water bodies and drainage lines must be minimised, with waterway sensitive products used.</li> <li>- Any spraying of pesticides for weed control is to be undertaken by spot spraying with appropriate, non-residual herbicide, with no off-target killing of native flora species via herbicide drift/over-spraying. Pre-emergent herbicides are not to be used at any time.</li> <li>- Subject to native vegetation protection and Cultural Heritage Management Plan (CHMP) requirements, weeds may also be removed by mechanical or manual methods.</li> <li>- Weed disposal must be undertaken in accordance with regulatory requirements.</li> <li>- Vertebrate pest animal control must be conducted in accordance with the Melbourne Airport Integrated Pest Management Plan.</li> </ul> </li> </ul>	At all times	
I	49	<ul style="list-style-type: none"> <li>■ Weed hygiene declarations are to be provided by the supplier for all vehicles, plant and materials brought to site.</li> </ul>		
I	50	<ul style="list-style-type: none"> <li>■ Plant, equipment and vehicles are to be visually inspected for weeds or soil prior to mobilisation or use at a work zone and will be washed or cleaned if required.</li> </ul>	At all times	

I – Flora and fauna				
I	51	<ul style="list-style-type: none"> <li>Plant, equipment and vehicles which come into contact with, or are used in areas where there is a potential for weed seed spreading must be cleaned sufficiently to remove weed seeds in designated wash down bays.</li> </ul>	At all times	
I	52	<ul style="list-style-type: none"> <li>Any weeds that may germinate from soil accumulated in the wash down area must be controlled.</li> </ul>	At all times	
I	53	<ul style="list-style-type: none"> <li>To prevent the spread of mosquitoes and other disease vectors the following measures must be implemented: <ul style="list-style-type: none"> <li>All water filled barriers must be completely sealed. Barriers that utilise a flap require the flap to be taped down and monitored during the breeding season.</li> <li>Eliminate/empty any standing water. If this is not practicable, the standing water must be treated (e.g. aquatin droplets).</li> <li>Repair any external leaks as soon as practicable in order to prevent the establishment of new breeding sites.</li> <li>Conduct an annual mosquito treatment (larvicides)/trapping program despite an outbreak.</li> </ul> </li> </ul>	At all times	
Prescribed burning fire controls			Timing	Reference
I	54	<ul style="list-style-type: none"> <li>All personnel must comply with fire restrictions and hot works permitting procedures.</li> </ul>	At all times	
I	55	<ul style="list-style-type: none"> <li>No burning is permitted on Total Fire Ban days.</li> </ul>	At all times	
I	56	<ul style="list-style-type: none"> <li>Works must be planned with consideration to weather conditions.</li> </ul>	At all times	
I	57	<ul style="list-style-type: none"> <li>Works in fire prone areas must be assessed and discontinued during times of Extreme or Code Red fire danger.</li> </ul>	At all times	
I	58	<ul style="list-style-type: none"> <li>Appropriate firefighting equipment to be available at all work sites in accordance with relevant emergency services recommendations.</li> </ul>	At all times	

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I – Flora and fauna				
I	59	■ Equipment used during prescribed burning must be of appropriate type, inspected regularly and maintained.	At all times	
I	60	■ Construction equipment, such as earth moving machinery and water trucks, must be on stand-by at the site during works in high fire risk areas if fire control is required.	At all times	

## 5.7 Heritage

J – Heritage				
Objectives		<ul style="list-style-type: none"> <li>■ To conduct site operations and routine activities in a way which preserves the airport's Indigenous and European cultural heritage values.</li> <li>■ To prevent the damage to any object or site of heritage significance.</li> </ul>		
Specific legislation/ regulation/ guidance		<ul style="list-style-type: none"> <li>■ Airports (Environment Protection) Regulations 1997</li> <li>■ Airports Regulations 1997 (Cth)</li> <li>■ Environment Protection and Biodiversity Conservation Act 1999 (Cth)</li> <li>■ Environment Protection and Biodiversity Conservation Regulations 2000 (Cth)</li> <li>■ Native Title Act 1993 (Cth)</li> </ul>		
Control ID		Required environmental management measures		
General Heritage controls			Timing	Reference
J	1	<ul style="list-style-type: none"> <li>■ Prior to any works commencing the Environmental Site Register must be reviewed to determine whether the project is to be undertaken in an area that has or potentially has known heritage values.</li> </ul>	Approvals stage	Heritage mapping (refer Environment Team)
J	2	<ul style="list-style-type: none"> <li>■ Potential heritage features must be understood and delineated as part of the project approvals process.</li> </ul>	Approvals stage	
J	3	<ul style="list-style-type: none"> <li>■ A project specific heritage assessment must be completed prior to any works in a cultural heritage sensitive location.</li> </ul>	Approvals stage	

J – Heritage				
Working in proximity to heritage sites			Timing	Reference
<b>Staff and contractor induction</b>				
J	4	<ul style="list-style-type: none"> <li>Site induction must include awareness of potential forms cultural heritage locations and items.</li> </ul>	Prior to commencement of work	
J	5	<ul style="list-style-type: none"> <li>All site personnel will be made aware of the potential to encounter cultural heritage items and actions required if an item of heritage significance is found.</li> </ul>	Prior to commencement of work	
Unexpected finds protocol			Timing	Reference
J	6	<p>The following steps must be followed if an item of potential heritage significance is found:</p> <ul style="list-style-type: none"> <li>Stop work, protect the item and inform the APAM Project Manager and the APAM Environment Manager.</li> <li>Engage a suitably qualified professional to make an assessment of the find.</li> <li>Establish and implement a heritage management plan.</li> <li>Make required notifications to the regulatory authority.</li> <li>Review work plan and adjust if required to adhere to heritage management plan.</li> <li>Resume works.</li> </ul>	At all times	



J – Heritage			
Physical protection of known heritage sites - Heritage Protection Zones (HPZ)			Reference
Timing			
Prior to commencement	J	7	<p>Heritage Protection Zones (HPZ) must be established to protect all areas of heritage significance. The following measures must be undertaken to protect HPZs.</p> <ul style="list-style-type: none"> <li>■ Fencing must be erected around relevant areas of heritage significance.</li> <li>■ Fencing must be clearly signed with "Heritage Protection Area - No Unauthorised personnel, Materials or Equipment beyond this point".</li> <li>■ Fencing must be installed from the construction site side with all waste materials removed immediately. The areas inside the zone must not be impacted by the installation (or removal) of fencing.</li> <li>■ HPZs can only be accessed by suitably qualified personnel for the purpose of approved maintenance or inspections (i.e. weed control).</li> <li>■ Each HPZ must be established prior to works commencing with fencing and signage maintained intact for the duration of the works.</li> <li>■ Fencing must be monitored and repairs made immediately.</li> </ul>

## 6.0 OTHER MANAGEMENT CONSIDERATIONS

APAM Departments routinely refer to additional management documents providing department specific guidance. In addition, APAM maintains certification of its Environmental Management System (EMS) to the international standard ISO 14001:2015. As such, there are several approved and endorsed Corporate Procedures, Operational Policies and Procedures, Guides, Templates and Forms which inform parts of this EMP.

These documents may include more specific guidance and/or robust management requirements than those included in this EMP. Additional requirements should be discussed with the APAM Environment Team in the event of any inconsistency between environmental management measures outlined in this EMP and current documents.

### 6.1 Biodiversity management plans and approvals

- Melbourne Airport's *Biodiversity and Conservation Management Plan*
- *Grey Box Woodland Management Plan*
- *Grey Box Woodland Fire Management Plan*
- Project specific EPBC Controlled Activity approval and/ or Part 13 Permit requirements.

### 6.2 Cultural Heritage Management Plans (CHMP)

- Project or area specific CHMPs approved by the Registered Aboriginal Party and produced in line with the requirements under the *Aboriginal Heritage Act 2006* (Vic) and *Aboriginal Heritage Regulations 2018* (Vic).

## **7.0 COMPLIANCE AND MONITORING**

### **7.1 Site Induction requirements**

- All APAM site personnel will be trained in the requirements of this plan.
- Toolbox talks, pre-start meetings and targeted training will be provided to site personnel as required.

### **7.2 Site inspections and compliance assessment**

- APAM Department Managers are responsible for ensuring the environmental management measures within this EMP are followed at all times.
- APAM Department Managers are responsible for establishing a suitable EMP compliance assessment and evaluation program for their operations and activities.
- To support the assessment of compliance with this EMP, the APAM Environment Team will schedule regular site inspections across Melbourne Airport operations and activities.
- APAM Environment Team site inspections will provide information from which APAM Department Managers and the APAM Environment Manager may evaluate the effectiveness of mitigation measures described in the EMP and, if warranted, modify the measures.

### **7.3 Amendments to the EMP**

Modifications will be documented by amending this EMP, registering the revision in the Revision History table at the beginning of the EMP, and recorded revisions in the EMP Update Register.

All revisions to the EMP must be approved by the APAM Environment Manager.

# APPENDIX A

## Risk Assessment

## RISK ASSESSMENT

Likelihood is defined as a qualitative probability assessment of the risk occurring, whilst the consequence is defined as the impact of the risk were it to occur. The qualitative likelihood and consequence descriptors used in this assessment are presented in Table A1 and Table A2 respectively.

**Table A1: Likelihood criteria**

Indicator	Frequency
Almost certain	Risk is expected to occur. <i>Risk may occur more than 80% of the time Greater than ten (10) events a year</i>
Likely	Risk will probably occur. <i>Risk may occur &gt; 60% - 80% of the time Between once every year and up to 10 events a year</i>
Possible	Risk may occur in some circumstances <i>Risk may occur &gt;40% - 60% of the time Between once every five (5) years and once (1) every year</i>
Unlikely	Risk may occur in exceptional circumstances <i>Risk may occur &gt;20% - 40% of the time Between once every ten (10) years and once (1) every five (5) years</i>
Rare	Risk is not expected to occur <i>Risk would be expected to occur less than 20% of the time Less than once every ten (10) years</i>

**Table A2: Enterprise Environmental Risk Consequence Definitions**

Indicator	Description
Catastrophic	Serious long term or widespread environmental harm (recovery 5 + years).
Major	Significant environmental harm with long term recovery (recovery 1-5 years).
Moderate	Moderate harm with mid-term recovery (recovery up to one year). Notifiable event.
Minor	Transient environmental harm overall (no detectable change to communities).
Limited	Brief pollution with effective remediation (within natural variability).

Table A3 illustrates the heat map/ risk assessment matrix which was applied to determine the risk rating for each identified environmental impact after the application of identified environmental management measures. Corresponding APAM management responses are presented in Table A4.

**Table A3: Applied risk assessment matrix**

		Consequence				
		Limited	Minor	Moderate	Major	Catastrophic
Likelihood	Almost Certain	Low (6)	Medium (11)	Significant (18)	High (23)	High (25)
	Likely	Low (5)	Medium (10)	Significant (17)	Significant (20)	High (24)
	Possible	Low (4)	Low (8)	Medium (13)	Significant (19)	Significant (22)
	Unlikely	Very low (2)	Low (7)	Medium (12)	Medium (15)	Significant (21)
	Rare	Very low (1)	Very low (3)	Low (9)	Medium (14)	Medium (16)

**Table A4: Management Instructions**

High (23 -25)	<p>Needs active management:</p> <ul style="list-style-type: none"> <li>■ Risks that significantly exceed APAC's risk tolerance threshold</li> <li>■ Immediate and proactive management required as priority</li> <li>■ Executive to be notified with regular reporting</li> <li>■ Need for out of sequence reporting to Board to be considered</li> </ul>
Significant (17 – 22)	<p>Needs regular monitoring:</p> <ul style="list-style-type: none"> <li>■ Risks that exceed APAC's risk tolerance threshold Proactive management required</li> <li>■ Executive to be notified with regular reporting</li> <li>■ Escalation/ notification to Board level through enterprise risk reporting</li> </ul>
Medium (10 – 16)	<p>Needs periodic monitoring:</p> <ul style="list-style-type: none"> <li>■ Active monitoring required</li> <li>■ Periodic 6 monthly review required</li> <li>■ Escalation/ notification to executive level</li> </ul>
Low (4 – 9)	<p>Manage on best efforts:</p> <ul style="list-style-type: none"> <li>■ Risks that are within APAC's risk tolerance threshold</li> <li>■ Risks that can be managed as part of "business as usual"</li> <li>■ Periodic review recommended</li> </ul>
Very Low (1 – 3)	<p>Manage by routine procedures:</p> <ul style="list-style-type: none"> <li>■ Risks that can be managed through normal and routine procedures</li> <li>■ No need to escalate</li> </ul>

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Activity	Environmental Impact	Mitigation Type	Environmental controls	Risk Assessment		
				Likelihood	Consequence	Risk Rating
Excavation and trenching	Disturbance to sites or items of heritage significance	Heritage	Heritage (all sections in 5.7)	Rare	Moderate	Low
	Physical disturbance to flora and fauna	Flora and Fauna	General controls (5.6.2)	Unlikely	Major	Medium
			Physical protection of flora and fauna (5.6.3)			
			Management of vegetation removal (5.6.4)			
	Creation of waste - excavated spoil	Waste	General controls (5.5.2)	Possible	Minor	Low
			Managing hazardous building waste (5.5.3)			Low
			Generated spoil from earthworks (5.5.4)			Low
	Erosion of disturbed soils	Erosion and Sedimentation	Erosion and sedimentation (all sections in 5.2)	Possible	Minor	Low
	Sedimentation of surface water caused by sediment in stormwater runoff	Surface water and stormwater	Surface water and stormwater (all sections in 5.5)	Unlikely	Minor	Low
	Generation of dust from earthwork	Air quality	General controls (5.3.2)	Unlikely	Minor	Low
			Dust controls (5.3.3)			Low
			Dust from earthworks (5.3.4)			Low
	Generation of waste water effluent requiring pump out of excavations and management and disposal	Waste	Wastewater effluent (5.5.5)	Likely	Minor	Medium
	Generation of contaminated waste water effluent requiring pump out of excavations and management and disposal	Land & Groundwater Contamination	Contaminated water from dewatering activities (5.4.7)	Possible	Minor	Low
	Noise complaints, reduced amenity	Noise	Noise (all sections in 5.4)	Unlikely	Minor	Low
Construction of new structures & Demolition or renovation to existing buildings	Generation of dust from Use of heavy plant/ equipment and vehicles	Dust	Dust controls from plant and heavy machinery (5.3.5)	Likely	Minor	Medium
	Leaks of fuel and other chemicals from heavy plant/ equipment and vehicles	Storage and handling of fuels and chemical	General controls (5.1.2)	Rare	Moderate	Low
			Control of fuel /chemical leaks from plant, equipment and vehicles (5.1.3)			Low
	Spread of weeds	Flora and Fauna	Weed and pest control (5.6.5)	Rare	Moderate	Low
	Animal strike; physical damage to native flora or other vegetation	Flora and Fauna	General controls (5.6.2) Physical protection of flora and fauna (5.6.3)	Rare	Moderate	Low
	Contamination of land and groundwater resulting from inappropriate handling of hazardous building materials	Land & Groundwater Contamination	General controls (5.4.2) Contaminated spoil management (5.4.5)	Rare	Moderate	Low
	Generation of hazardous waste	Waste	Managing hazardous building waste (5.5.3)	Rare	Moderate	Low
	Generation of general building wastes and packaging	Waste	General controls (5.5.2)	Likely	Limited	Low
	Pollution of land and groundwater water from spill of chemicals	Land & Groundwater Contamination / Storage and handling of fuels and chemical	Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.4.2)	Rare	Moderate	Low
	Pollution of stormwater/ surface water from chemical spills	Surface water /Stormwater	Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.5.2)	Rare	Major	Medium
	Noise complaints, reduced amenity	Noise	Noise (all sections in 5.4)	Rare	Limited	Very Low

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Activity	Environmental Impact	Mitigation Type	Environmental controls	Risk Assessment		
				Likelihood	Consequence	Risk Rating
	Generation of dust from Use of heavy plant/ equipment and vehicles	Dust	Dust controls from plant and heavy machinery (5.3.5)	Unlikely	Minor	Low
	Pollution of stormwater/ surface water from leaks or chemical spills (e.g. Fuels, hydraulic fluid)	Storage and handling of fuels and chemical	General controls (5.1.2) Control of fuel /chemical leaks from plant, equipment and vehicles (5.1.3)	Rare	Moderate	Low
	Potentially contaminated fill being brought to site for building /landscaping	Land & Groundwater Contamination	Imported materials to site (5.4.4)	Rare	Moderate	Low
Storage and use of chemicals/ fuel	Pollution of land and groundwater water from spill of chemicals	Land & Groundwater Contamination / Storage and handling of fuels and chemical	Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.4.2)	Rare	Moderate	Low
	Pollution of stormwater/ surface water from chemical spills	Surface water/ stormwater	Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.5.2)	Rare	Major	Medium
Geotechnical and exploratory ground investigation	Disturbance to sites or items of heritage significance	Heritage	Heritage (all sections in 5.7)	Rare	Moderate	Low
	Physical disturbance to flora and fauna	Flora and Fauna	General controls (5.6.2) Physical protection of flora and fauna (5.6.3) Management of vegetation removal (5.6.4)	Unlikely	Major	Medium
	Creation of waste - excavated spoil	Waste	General controls (5.5.2)	Possible	Minor	Low
	Noise complaints, reduced amenity	Noise	Noise (all sections in 5.4)	Rare	Limited	Very Low
	Generation of dust from Use of heavy plant/ equipment and vehicles	Dust	Dust controls from plant and heavy machinery (5.3.5)	Likely	Minor	Medium
Ground improvement and / or compaction	Erosion of disturbed soils	Erosion and Sedimentation	Erosion and sedimentation (all sections in 5.2)	Unlikely	Minor	Low
	Sedimentation of surface water caused by sediment in stormwater runoff	Surface water/ Stormwater	Erosion and sedimentation (all sections in 5.2) Surface water and stormwater (all sections in 5.5)	Unlikely	Minor	Low
	Generation of dust from earthwork	Dust	General controls (5.3.2) Dust controls (5.3.3) Dust from earthworks (5.3.4)	Possible	Minor	Low
	Disturbance to sites or items of heritage significance	Heritage	Heritage (all sections in 5.7)	Rare	Moderate	Low
	Physical disturbance to flora and fauna	Flora and Fauna	General controls (5.6.2) Physical protection of flora and fauna (5.6.3)	Rare	Moderate	Low
	Creation of waste - excavated spoil	Waste	General controls (5.5.2) Managing hazardous building waste (5.5.3) Generated spoil from earthworks (5.5.4)	Possible	Minor	Low
	Noise complaints, reduced amenity	Noise	Noise (all sections in 5.4)	Rare	Limited	Very Low
	Generation of dust from earthwork	Dust	Dust controls from plant and heavy machinery (5.3.5)	Possible	Minor	Low
	Generation of increased stormwater run-off (changes to hydrology)	Surface water/ Stormwater	General controls (5.5.2) Hydrology and drainage considerations (5.5.4)	Possible	Minor	Low
	Erosion of disturbed soils	Erosion and Sedimentation	Erosion and sedimentation (all sections in 5.2)	Unlikely	Minor	Low



# MELBOURNE AIRPORT

Activity	Environmental Impact	Mitigation Type	Environmental controls	Risk Assessment		
				Likelihood	Consequence	Risk Rating
Construction or demolition of civil infrastructure such as roads, driveways, curbs, ramps	Sedimentation of surface water caused by sediment in stormwater runoff	Surface water/ Stormwater	Surface water and stormwater (all sections in 5.5)	Unlikely	Minor	Low
	Generation of dust from earthwork	Dust	Dust from earthworks (5.3.4)	Possible	Minor	Low
	Disturbance to sites or items of heritage significance	Heritage	Heritage (all sections in 5.7)	Rare	Moderate	Low
	Physical disturbance to flora and fauna	Flora and Fauna	General controls (5.6.2) Physical protection of flora and fauna (5.6.3) Management of vegetation removal (5.6.4) Weed and pest control (5.6.5)	Rare	Moderate	Low
	Potentially contaminated fill being brought to site for building /landscaping	Land & Groundwater Contamination	Imported materials to site (5.4.4)	Rare	Moderate	Low
	Pollution of land and groundwater from spill of chemicals	Land & Groundwater Contamination / Storage and handling of fuels and chemical	Storage and handling of fuels and chemicals (all sections 5.1)	Rare	Moderate	Low
	Pollution of surface water from spill of chemicals	Surface water/ Stormwater	Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.5.2)	Rare	Major	Medium
	Noise complaints, reduced amenity	Noise	Noise (all sections in 5.4)	Rare	Limited	Very Low
	Generation of dust from earthwork	Dust	Dust controls from plant and heavy machinery (5.3.5)	Possible	Minor	Low
	Generation of waste	Waste	General controls (5.5.2) Managing hazardous building waste (5.5.3) Generated spoil from earthworks (5.5.4)	Likely	Limited	Low
Dewatering activities	Waste water effluent requiring pump out of excavations and management and disposal	Waste	Contaminated water from dewatering activities (5.4.7)	Possible	Minor	Low
	Contaminated waste water effluent requiring pump out of excavations and management and disposal	Land & Groundwater Contamination	Wastewater effluent (5.5.5)	Possible	Moderate	Medium
Management of soil stockpiles	Erosion of disturbed soils	Erosion and Sedimentation	Erosion and sedimentation (all sections in 5.2)	Possible	Minor	Low
	Spread of weeds from soil movements and vehicle movements	Flora and fauna	Weed and pest control (5.6.5)	Unlikely	Moderate	Medium
	Generation of dust from stockpiles	Dust	Dust from stockpiles (5.3.6)	Possible	Minor	Low
	Sedimentation of surface water caused by sediment in stormwater runoff	Surface water/ Stormwater	General controls (5.5.2) Erosion and sediment controls (5.5.3)	Unlikely	Moderate	Medium
Management of contaminated soil stockpiles	Erosion and migration of contaminated materials	Land & Groundwater Contamination	Contaminated spoil management (5.4.5) Contaminated stockpile management (5.4.6)	Unlikely	Moderate	Medium
	Generation of dust from earthwork	Dust	Dust from earthworks (5.3.4)	Possible	Moderate	Medium
	Pollution of surface water caused by sediment and chemicals in stormwater runoff from contaminated stockpiles	Surface water/ Stormwater	Erosion and sediment controls (5.5.3) Contaminated spoil management (5.4.5) Contaminated stockpile management (5.4.6) General controls (5.5.2)	Unlikely	Major	Medium

# MELBOURNE AIRPORT

Activity	Environmental Impact	Mitigation Type	Environmental controls	Risk Assessment		
				Likelihood	Consequence	Risk Rating
Repairing and maintaining existing infrastructure	Noise complaints, reduced amenity	Noise	Noise (all sections in 5.4)	Rare	Limited	Very Low
	Generation of dust from earthwork	Dust	Dust controls from plant and heavy machinery (5.3.5)	Rare	Minor	Very Low
	Pollution of stormwater/ surface water from leaks or chemical spills (e.g. Fuels, hydraulic fluid)	Storage and handling of fuels and chemical	Control of fuel /chemical leaks from plant, equipment and vehicles (5.1.3)	Unlikely	Moderate	Medium
	Damage to flora and fauna	Flora and Fauna	General controls (5.6.2) Physical protection of flora and fauna (5.6.3)	Rare	Minor	Very Low
	Pollution of land from spill of chemicals	Land & Groundwater Contamination / Storage and handling of fuels and chemical	Storage and handling of fuels and chemicals (all sections 5.1)	Unlikely	Major	Medium
	Pollution of surface water from spill of chemicals	Surface water/ Stormwater	Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.5.2)	Unlikely	Major	Medium
	Pollution of groundwater from spill of chemicals	Land & Groundwater Contamination / Storage and handling of fuels and chemical	Storage and handling of fuels and chemicals (all sections 5.1)	Unlikely	Major	Medium
	Damage to items of heritage significance	Heritage	Heritage (all sections in 5.7)	Rare	Moderate	Very Low
	Damage to vegetation	Flora and Fauna	General controls (5.6.2) Physical protection of flora and fauna (5.6.3)	Rare	Moderate	Very Low
	Erosion of disturbed soils	Erosion and Sedimentation	Erosion and sedimentation (all sections in 5.2)	Rare	Minor	Very Low
	Dust impacts	Dust	Dust from earthworks (5.3.4)	Unlikely	Minor	Low
	Sedimentation of surface water caused by sediment in stormwater runoff	Surface water/ Stormwater	General controls (5.5.2) Erosion and sediment controls (5.5.3)	Rare	Moderate	Low
	Creation of waste - excavated spoil	Waste	General controls (5.5.2) Managing hazardous building waste (5.5.3) Generated spoil from earthworks (5.5.4)	Rare	Minor	Very Low
	Generation of waste	Waste	General controls (5.5.2)	Likely	Limited	Low
Drainage works	Noise complaints, reduced amenity	Noise	Noise (all sections in 5.4)	Unlikely	Limited	Very Low
	Generation of dust from earthwork	Dust	Dust from earthworks (5.3.4)	Possible	Minor	Low
	Pollution of stormwater/ surface water from leaks or chemical spills (e.g. Fuels, hydraulic fluid)	Storage and handling of fuels and chemical	Control of fuel /chemical leaks from plant, equipment and vehicles (5.1.3)	Unlikely	Moderate	Medium
	Damage to items of heritage significance	Heritage	Heritage (all sections in 5.7)	Rare	Moderate	Low
	Damage to vegetation	Flora and Fauna	General controls (5.6.2) Physical protection of flora and fauna (5.6.3) Management of vegetation removal (5.6.4) Weed and pest control (5.6.5)	Unlikely	Moderate	Medium
	Pollution of land from spill of chemicals	Land & Groundwater Contamination	Storage and handling of fuels and chemicals (all sections 5.1)	Unlikely	Major	Medium

# MELBOURNE AIRPORT

Activity	Environmental Impact	Mitigation Type	Environmental controls	Risk Assessment		
				Likelihood	Consequence	Risk Rating
	Pollution of surface water from spill of chemicals	Surface water/ Stormwater	Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.5.2)	Unlikely	Major	Medium
	Pollution of groundwater from spill of chemicals	Land & Groundwater Contamination	Storage and handling of fuels and chemicals (all sections 5.1)	Unlikely	Major	Medium
	Damage to items of heritage significance	Heritage	Heritage (all sections in 5.7)	Rare	Moderate	Low
	Damage to vegetation	Flora and Fauna	General controls (5.6.2) Physical protection of flora and fauna (5.6.3) Management of vegetation removal (5.6.4)	Unlikely	Moderate	Medium
	Creation of waste - excavated spoil	Waste	General controls (5.5.2) Managing hazardous building waste (5.5.3) Generated spoil from earthworks (5.5.4)	Likely	Minor	Medium
	Generation of waste	Waste	General controls (5.5.2)	Likely	Minor	Medium
Petroleum storage	Hydrocarbon contamination of soils impacted by fuel LOC	Land & Groundwater Contamination	General controls (5.4.2) Bulk fuel storage (5.4.3)	Unlikely	Major	Medium
	Surface water pollution from fuel LOC	Surface water/ Stormwater	General controls (5.5.2) Bulk fuel storage (5.4.3)	Unlikely	Major	Medium
	Hydrocarbon impact to Groundwater from fuel LOC	Land & Groundwater Contamination	General controls (5.4.2) Bulk fuel storage (5.4.3)	Unlikely	Major	Medium
	Emissions to air from tank venting	Air Quality	General controls (5.3.2)	Unlikely	Moderate	Medium
Maintenance and repair of vehicles and plant	Land contamination - stored bulk fuel	Land & Groundwater Contamination	Bulk fuel storage (5.4.3)	Rare	Major	Medium
	Hydrocarbon contamination of soils impacted by fuel LOC	Land & Groundwater Contamination	General controls (5.4.2) Bulk fuel storage (5.4.3)	Rare	Major	Medium
	Surface water pollution from fuel LOC	Surface water/ Stormwater	General controls (5.5.2) Bulk fuel storage (5.4.3)	Rare	Major	Medium
	Hydrocarbon contamination of groundwater impacted by fuel LOC	Land & Groundwater Contamination	General controls (5.4.2) Bulk fuel storage (5.4.3)	Rare	Major	Medium
	Noise complaints, reduced amenity	Noise	Noise (all sections in 5.4)	Rare	Limited	Very Low
	Vehicle emissions to air	Air Quality	General controls (5.3.2)	Rare	Limited	Very Low
	Pollution of stormwater/ surface water from leaks or chemical spills (e.g. Fuels, hydraulic fluid)	Storage and handling of fuels and chemical	Control of fuel /chemical leaks from plant, equipment and vehicles (5.1.3)	Rare	Major	Medium
	Inappropriate disposal / management of generated waste	Waste	General controls (5.5.2)	Rare	Major	Medium
	Waste management (effluent)	Waste	Wastewater effluent (5.5.5)	Rare	Major	Medium
Storage and handling of placarded quantities of other dangerous goods	Spill or other major LOC of DGs causing contamination of soil	Land & Groundwater Contamination	Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.4.2)	Rare	Major	Medium
	Spill or other major LOC of DGs	Surface water/ Stormwater	Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.5.2)	Rare	Major	Medium

# MELBOURNE AIRPORT

Activity	Environmental Impact	Mitigation Type	Environmental controls	Risk Assessment		
				Likelihood	Consequence	Risk Rating
	Spill or other major LOC of DGs causing contamination of groundwater	Land & Groundwater Contamination	Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.4.2)	Rare	Major	Medium
	Air emissions from stored DGs	Air Quality	Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.3.2)	Unlikely	Moderate	Medium
Generation and management of prescribed wastes	Inappropriate disposal / management of generated waste	Waste	General controls (5.5.2)	Unlikely	Major	Medium
Pruning, mowing and slashing or general landscaping	Potential unintended impacts to native vegetation, protected EECs or significant flora species	Flora and fauna	Flora and fauna (all sections in 5.6)	Unlikely	Moderate	Medium
	Spread of weeds	Flora and fauna	Weed and pest control (5.6.5)	Unlikely	Moderate	Medium
	Green waste disposal	Waste	Green waste disposal (5.5.6)	Likely	Minor	Medium
	Noise complaints, reduced amenity	Noise	Noise (all sections in 5.4)	Likely	Limited	Low
	Generation of dust from earthwork	Dust	Dust from earthworks (5.3.4)	Likely	Minor	Medium
	Pollution of stormwater/ surface water from leaks or chemical spills (e.g. Fuels, hydraulic fluid)	Storage and handling of fuels and chemical	Control of fuel /chemical leaks from plant, equipment and vehicles (5.1.3)	Unlikely	Moderate	Medium
	Erosion of soil	Erosion and Sedimentation	Erosion and sedimentation (all sections in 5.2)	Possible	Minor	Low
	Generation of dust from earthwork	Dust	Dust from earthworks (5.3.4)	Likely	Minor	Medium
	Sediment laden run-off from work site/ disturbed areas	Surface water/ Stormwater	Erosion and sedimentation (all sections in 5.2) Surface water and stormwater (all sections in 5.5)	Unlikely	Moderate	Medium
	Potentially contaminated material being brought to site for landscaping	Land & Groundwater Contamination	Imported materials to site (5.4.4) General controls (5.6.2) Weed and pest control (5.6.5)	Rare	Moderate	Low
Vegetation clearing	Potential unintended impacts to native vegetation, protected EECs or significant flora species	Flora and Fauna	Flora and fauna (all sections in 5.6)	Rare	Moderate	Low
Prescribed burning	Emissions of combustion released to air	Air Quality	General controls (5.3.2) Prescribed burning fire controls (5.6.6)	Likely	Minor	Medium
	Loss of control of fire whilst using prescribed burning to manage understory growth/ reduce fuel load	Flora and Fauna	Prescribed burning fire controls (5.6.6)	Rare	Catastrophic	Medium
	Potential unintended impacts to native vegetation, protected EECs or significant flora species	Flora and Fauna	Flora and fauna (all sections in 5.6)	Rare	Major	Medium
Use of herbicides, fertilisers and pesticides	Pollution of stormwater from run-off from application areas	Surface water/ Stormwater	Weed and pest control (5.6.5) General controls (5.5.2) Erosion and sediment controls (5.5.3) Hydrology and drainage considerations (5.5.4) Storage and handling of fuels and chemicals (all sections 5.1)	Unlikely	Major	Medium

# MELBOURNE AIRPORT

Activity	Environmental Impact	Mitigation Type	Environmental controls	Risk Assessment		
				Likelihood	Consequence	Risk Rating
	Pollution of stormwater from spills	Surface water/ Stormwater	Weed and pest control (5.6.5) General controls (5.5.2) Erosion and sediment controls (5.5.3) Hydrology and drainage considerations (5.5.4) Storage and handling of fuels and chemicals (all sections 5.1)	Unlikely	Major	Medium
	Land contamination from chemical application	Land & Groundwater Contamination	Weed and pest control (5.6.5) Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.4.2)	Unlikely	Major	Medium
	Land contamination from spills of chemicals	Land & Groundwater Contamination	Weed and pest control (5.6.5) Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.4.2)	Unlikely	Major	Medium
	Pollution of stormwater from spills	Surface water/ Stormwater	Weed and pest control (5.6.5) General controls (5.5.2) Erosion and sediment controls (5.5.3) Hydrology and drainage considerations (5.5.4) Storage and handling of fuels and chemicals (all sections 5.1)	Unlikely	Major	Medium
	Land contamination from spills of chemicals	Land & Groundwater Contamination	Weed and pest control (5.6.5) Storage and handling of fuels and chemicals (all sections 5.1) General controls (5.4.2)	Unlikely	Major	Medium

## APPENDIX B

### **EMP Document Map**

Key: ✓ - Is relevant, or <i>may be</i> relevant to the works ✗ - Unlikely to be relevant to the works				Construction of new structures	Demolition or renovation to existing buildings	Repairs/ maintenance of existing buildings or	Building/ renovating / Repairs/ maintenance of	Construction or demolition of civil infrastructure	Drainage works	Excavation and trenching	Geotechnical and exploratory ground	Ground improvement and / or compaction	Dewatering activities	Management of soil stockpiles	Management of contaminated soil stockpiles	Maintenance and repair of vehicles and plant	Storage and use of chemicals/ fuel	Storage/ handling of placarded quantities of	Petroleum storage	Generation and management of prescribed	Vegetation clearing	Pruning, mowing and slashing or general	Use of herbicides, fertilisers and pesticides	Prescribed burning
Corresponding EMP Checklist:				Construction and demolition						Earthworks						Storage, handling and use of chemicals and fuel					Vegetation management			
Required mitigation measures			Management controls																					
General Environmental management requirements	EMP section 4	Waste Management (Section 4.1)	A1 – A36	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Air Quality (Section 4.2)	B1 – B11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Noise management (Section 4.3)	C1-C9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Emergency response	Refer Section 4.4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Complaints handling	Refer Section 4.5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Storage and handling of fuels and chemicals	EMP section 5.1	General controls	D1-D6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Chemical storage	D7-D12	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Refuelling controls	D13-D14	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Control of fuel / chemical leaks from plant, vehicles and equipment	D15-D17	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Dangerous goods storage, use and handling	D18-D20	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Management of excavated soil	EMP section 5.2	General controls	E1-E5	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Soil Stockpile management	E6-E13	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Erosion and sedimentation	EMP section 5.3	General controls incl. weather and staging	F1-F3	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Erosion and sediment control structures	F4-F16, Table 7	✓	✓	✗	✓	✓	✓	✓	✗	✓	✗	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗
		Control of sediment during dewatering	F17-F18	✓	✓	✗	✓	✓	✓	✓	✗	✓	✗	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗
Surface water and stormwater	EMP section 5.4	General stormwater and surface water protection measures	G1-G7, Table 8	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Works within waterways and riparian areas	G8-G10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Land and Groundwater Contamination	EMP section 5.5	Bulk fuel storage controls	H1-H5	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✗	✗	✗	✗	✗
		Control of imported materials to site	H6-H9	✓	✓	✗	✓	✓	✓	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✓	✗	✗
		Contamination assessment requirements	H10-H12	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✓	✗	✓	✗	✓
		Contaminated spoil management	H13-H21	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✗	✗	✓	✗	✗	✗	✓
		Contaminated stockpile management	H22-H23	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✗	✗	✗	✓	✗	✗	✗	✗

Key: ✓ - Is relevant, or <i>may be</i> relevant to the works ✗ – Unlikely to be relevant to the works				Construction of new structures	Demolition or renovation to existing buildings	Repairs/ maintenance of existing buildings or	Building/ renovating / Repairs/ maintenance of	Construction or demolition of civil infrastructure	Drainage works	Excavation and trenching	Geotechnical and exploratory ground	Ground improvement and / or compaction	Dewatering activities	Management of soil stockpiles	Management of contaminated soil stockpiles	Maintenance and repair of vehicles and plant	Storage and use of chemicals/ fuel	Storage/ handling of placarded quantities of	Petroleum storage	Generation and management of prescribed	Vegetation clearing	Pruning, mowing and slashing or general	Use of herbicides, fertilisers and pesticides	Prescribed burning
Corresponding EMP Checklist:				Construction and demolition						Earthworks						Storage, handling and use of chemicals and fuel					Vegetation management			
		Management of contaminated water from dewatering activities	H24-H25	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✗	✗	✗	✓	✗	✗	✗	✗
		PFAS Management Procedure	H26-H28	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✗	✗	✗	✗
Flora and fauna	EMP section 5.6	General flora and fauna management controls	I1-I7	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Bushfire prevention	I8-I10	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✗	✗	✗	✗	✗
		Physical protection of flora and fauna	I11-I25	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✗	✗	✓	✓	✓	✓	✓
		Management of vegetation removal	I26-I33	✓	✓	✗	✓	✓	✓	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓
		Revegetation of disturbed land	I34-I38	✓	✓	✗	✓	✓	✓	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓
		Weed and pest control	I39-I46	✓	✓	✗	✓	✓	✓	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓
		Prescribed burning fire controls	I47-I53	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓
Heritage	EMP section 5.7	General heritage controls	J1-J3	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Working in proximity to heritage sites	J4-J5	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓	✓
		Unexpected finds protocol	J6	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓	✓
		Physical protection of known heritage sites - Heritage Protection Zones (HPZ)	J7	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓	✓



## APPENDIX C

### **Legislation and regulatory review**

## LEGAL AND REGULATORY REQUIREMENTS / STATUTORY FRAMEWORK

The Commonwealth environmental legislation which is most relevant to APAM is:

- Airports Act 1996 (Cth) (**Airports Act**), in particular, Part 6 relating to environmental management
- Airports (Environment Protection) Regulations 1997 (Cth) (**Airports EP Regulations**)
- Airports (Building Control) Regulations 1996 (Cth)
- Airports Regulations 1997 (Cth)
- Environment Protection and Biodiversity Conservation Act 1999 (Cth) (**EPBC Act**)

Victorian State Legislation which may apply to APAM includes the following:

- Biological Control Act 1986
- Catchment and Land Protection Act 1994
- Climate Change Act 2010
- Conservation, Forest and Lands Act 1987
- Dangerous Goods Act 1985
- Environment Protection Act 1970 (only limited application in relation to waste requirements)
- Litter Act 1987
- Occupational Health and Safety Act 2004 (although application may be limited for any Commonwealth bodies, public authorities or non-Commonwealth licensees who operate at the airport)
- Pipelines Act 2005
- Safe Drinking Water Act 2003
- Victorian Renewable Energy Act 2006
- Water Act 1989
- Water Efficiency Labelling and Standards Act 2005
- Wildlife Act 1975

## APPENDIX D

### **Operation Specific Checklists**

# MELBOURNE AIRPORT

APAM EMP DAILY/WEEKLY CHECKLIST	
Date:	Time:
Inspector:	
<b>Work details</b>	
Crew members:	
Location & duration:	
Type of works/Works description:	

**Table 1: General considerations**

<b>Weather</b>			
Do any changes need to be made to the timing or approach to works due to bad weather?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Plant, equipment &amp; vehicles</b>			
Are all plant, equipment and vehicles to be used in good working order?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Have all daily check inspections been carried out?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Plant, equipment and vehicles must be turned off when not in use	<input type="checkbox"/> OK		
Plant, equipment and vehicles must remain on approved roads and access tracks and operate within signed speed limits	<input type="checkbox"/> OK		

**Table 2: Waste**

<i>At all times, the creation of waste should be avoided. Where avoidance is not feasible, waste generation should be reduced as far as possible.</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Will any of the planned activities create waste?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Can wastes be reused or recycled rather than disposed of?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are there designated waste management areas for the different waste streams?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are all waste containers fit for purpose for the intended waste stream, including preventing spills/leaks, reducing odour and prevent vermin?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are all waste bins in good condition, with large and clearly visible labels?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Waste water / effluent</b>			
If waste water is likely to be generated by the activity, is there a clear management, reuse or disposal plan? Note: for water reuse on site, water quality parameters must be measured and comply with acceptable limits. No contaminated water can be discharged on site.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Can the wastewater be discharged through an existing Trade Waste Agreement? (Contact APAM Department Manager to determine this).	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
If effluent is going to be discharged to sewer, have you contacted the APAM Facilities Manager and obtained written approval?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Hazardous building waste</b>			
Are any hazardous building wastes likely to be generated/handled/stored on site?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
If yes, has the <i>Melbourne Airport Hazardous Building Materials and ACM Register</i> been reviewed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has a <i>Hazardous Materials Removal Management Plan</i> been prepared by a suitably qualified occupational hygienist? Are all required management actions referred to in this plan <b>Refer to this plan for further actions required.</b>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
In the event that hazardous building materials are found or suspected during the course of any work, immediately cease work and contact the APAM Project Manager and the Environment Manager.	<input type="checkbox"/> OK		
<b>Prescribed Industrial Waste (PIW)</b>			
Will there be any PIW generated/handled/stored on site?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Will PIW waste be segregated from other waste in appropriate sealed containers (yellow bins) with adequate labelling? Note: <i>APAM Facilities Maintenance Department</i> are to be contacted to arrange disposal when bins become full.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Green Waste Management</b>			
Will any green waste be generated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Suitable green waste is to be mulched and reused on site. Green waste containing weeds or other unacceptable material must be disposed of off-site in accordance with regulatory requirements.	<input type="checkbox"/> OK		
Will any green waste be disposed of via a controlled burn? If so, see EMP Section 5.6.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA

# MELBOURNE AIRPORT

**Table 3: Air quality**

Do the planned activities have the potential to generate dust impacts? Has planning for the work considered how to minimise the generation of dust?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Dust management for plant, equipment &amp; vehicle use</b>			
All heavy plant, equipment, vehicles and materials and operating personnel must remain within approved worksite and access areas.	<input type="checkbox"/> OK		
Speed limits on all access roads and tracks must be established and adhered to.	<input type="checkbox"/> OK		
All dust generating material loads must be covered during transport	<input type="checkbox"/> OK		
Are wheel wash and truck wash down areas available for potential dusty sites?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Is a water truck available to provide dust suppression water spraying if required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA

**Table 4: Noise and community complaints**

For more information, see EMP Section 4.3

Have works been planned during standard working hours (7am – 6pm)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Have the closest residents and businesses likely to be impacted by traffic noise or machinery etc...been identified?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are corrective actions possible and practical for the works if noise complaints are received?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Dust and Noise complaints, or any other community feedback received will be logged and responded to as per Section 4.5.	<input type="checkbox"/> OK		

**Table 5: Storage and handling of fuels and chemicals**

For more information, see EMP Section 5.1

Will you be using, handling or storing any fuels or chemicals during the works?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are all fuels and chemicals being handled and stored in areas that:			
■ are undercover and well ventilated?			
■ in close proximity to an appropriate spill kit?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
■ on an impervious surface such as concrete hardstand?			
■ stored with appropriate bunding?			
Are quantities stored kept to a minimum (considering usage and shelf-life)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are up to date SDS (Safety data sheets) available within the work area where chemicals are stored?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Chemical storage</b>			
Are all chemicals and fuels stored in appropriate sealed containers?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Is the chemical storage area greater than 20m away from any sensitive area (i.e. waterway, native vegetation)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are all storage instructions on the SDS being adhered to?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are there suitable spill kits present in storage areas?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Refuelling</b>			
Will any refuelling be taking place on site?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Will refuelling be undertaken in a designated refuelling area?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Refuelling areas should not be within 20m of an inlet or drain (or drain seals must be in place prior to refuelling activities) and must be located on impervious hardstand, have bunding and should be graded to a spill collection pit.			
<b>Small leaks and spill response</b>			
Are spill kits available & personnel are trained in their use?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are all personnel aware of the spill response procedure (control, contain, report & notify, clean up spill) as outlined in Section 4.4.1?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Dangerous goods</b>			
Are requirements for secondary containment as outlined in the <i>Code of Practice for the Storage and Handling of Dangerous Goods</i> and Australian Standard AS1940 - 2017 <i>Storage and Handling of Flammable and Combustible Liquids</i> understood and adhered to?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
A Dangerous Goods manifest must be maintained for all work sites which store dangerous goods.	<input type="checkbox"/> OK		

# MELBOURNE AIRPORT

**Table 6: Excavated Soil Management**

Melbourne airport conservatively assumes some degree of chemical contamination of all underlying soils. As such, the following management measures must be adhered to during all excavation and ground disturbing activities: <ul style="list-style-type: none"><li>■ Excavation must be carried out in a way which keeps topsoils and underlying soils separate to prevent the potential contamination of subsoils.</li><li>■ The volume of waste spoil generated from earthwork must be reduced as far as practicable.</li><li>■ Generated spoil must be reinstated on site at the conclusion of ground disturbing work wherever possible.</li><li>■ Any volume of spoil that cannot be reinstated or otherwise accommodated on site (as determined through consultation with APAM Environment Team), must be temporarily stockpiled.</li></ul>	<input type="checkbox"/> OK		
Will excavation activities generate spoil requiring off-site disposal?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
If <b><u>YES</u></b> <ul style="list-style-type: none"><li>■ Spoil must first be tested and classified to confirm suitability for off-site disposal.</li><li>■ Once test results are obtained, results must be provided to the APAM Environment Team. Following APAM's approval, the material can be disposed of to an appropriately licenced waste facility in accordance with regulatory requirements.</li></ul>	<input type="checkbox"/> OK		
<b>Soil Stockpile Management</b>			
Will excavated soil need to be stockpiled?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
If <b><u>YES</u></b> Are stockpiles being managed in accordance with environmental controls E6 – E13 listed in Section 5.2 of the EMP?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA

**Table 7: Erosion and sedimentation**

Have earthwork and ground disturbing activities been planned and staged to reduce the duration and extent of exposed soils?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are all disturbed areas able to be reinstated or otherwise stabilised at the end of each day?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<ul style="list-style-type: none"> <li>Excavations such as trenching to be left open for more than 5 days must be covered each night.</li> <li>Soil binder can be applied to exposed surfaces where likely to remain so for over 7 days</li> </ul>			
Are the erosion and sediment controls chosen fit for purpose and appropriate for the intended application? Refer to EMP Section 5.3 and EMP Table 7 for guidance.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has the project considered and assessed the requirement for the installation of longer term sediment controls such as sediment basins?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Have erosion and sediment controls been installed prior to works commencing? Are these being maintained for the duration of the activity?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are erosion and sediment controls positioned to prevent rain flowing over disturbed sites?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are erosion and sediment controls positioned to minimise the inflow of stormwater to excavations?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Will erosion and sediment controls be inspected regularly including prior to and after rain events to ensure they are functioning properly?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Control of sediment during dewatering</b>			
Will there be any wastewater generated from excavations intercepting groundwater?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
If <b>YES</b> , water extracted from excavation via dewatering is to be managed in accordance with likelihood of groundwater contamination.	<input type="checkbox"/> OK		
Has a dewatering plan been prepared and has the APAM Environment Team reviewed and approved this plan?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA

**Table 8: Surface water and stormwater**

Is there a potential for works to have an impact on surface water or storm water quality or quantity?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Is a major rainfall event forecast for any time during the works?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
If <b>YES</b> , a risk assessment must be undertaken and appropriate mitigation measures put in place.			
Are all stormwater pits, drains or open channels near the work area protected by an appropriate sediment trap? (including stormwater pits along established roadways)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are rainwater diversions established around the work area?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Works within or near rivers, creeks or drainage lines</b>			
Are the works within 50m of a waterway (river, creek or drainage line)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA

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A detailed environmental assessment and CEMP must be prepared for any project work required within the channel or banks of a waterway on Melbourne Airport land.			
Are vegetation removal works required within 50m of a waterway? If <b>YES</b> , approval must be received through the APAM building approval process.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Is fill required to be stockpiled within 50m of a waterway? If <b>YES</b> , approval must be received through the APAM building approval process.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has a detailed environmental assessment been undertaken and received project approval through the APAM building approval process?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA

**Table 9: Land and groundwater contamination**

For more information, see EMP Section 5.5

<b>Bulk fuel storage</b>			
Will there be any bulk fuels stored/handled/used in the work zone? If <b>YES</b> , refer to H1-H5 in Section 5.5 for requirements for leak detection and repair and APAM's expectations for best practice management of ASTs and USTs	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are all ASTs and USTs which are no longer in use decommissioned appropriately?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Imported materials to site</b>			
Have all works been planned to maximise the amount of excavated materials that can be re-used on site?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has all site re-levelling been planned to balance cut to fill to minimise earthworks and the need to import fill or other materials?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has topsoil been stripped in a way to maximise the amount of recoverable topsoil, while preventing contamination with subsoils?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are any fill or similar materials being brought onto site? (i.e. fill, soils, mulch etc.) If Yes,	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Have all imported materials been appropriately sampled, tested and classified in accordance with the EPA Waste Categorisation and Soil Hazard Categorisation and Management Guidelines?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Have all imported soils, mulch and other vegetation supplies been assessed as free of weeds, debris & other contaminants?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Contamination assessments</b>			
Has the APAM Project Manager reviewed the Environmental Site Register to determine whether the project may affect or be affected by contaminated soils or groundwater?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Is the work area a known or a suspected contaminated area? If <b>Yes</b> ,	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has a third party environmental assessment been conducted and a detailed spoil management plan been prepared (for substantial works requiring earthwork and spoil generation)? Note: The scope of the environmental assessment and detailed spoil management plan is to be discussed and determined in consultation with the APAM Environment Team.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Contaminated Spoil Management</b>			
Will there be any contaminated spoil generated, stored or handled in the work area? If <b>YES</b> ,	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has the work been planned to reinstate as much spoil as practicable?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are work methods developed to ensure contaminated spoil is kept separate from other spoil/materials?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has contaminated spoil been classified and approved by APAM Environment Manager as suitable for offsite disposal in accordance with regulatory requirements?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
If an area of suspected or actual contamination is found, works must be suspended, the area secured, inspected and an assessment of contamination be carried out.	<input type="checkbox"/> OK		
<b>Contaminated stockpiles</b>			
Are there any contaminated stockpiles in the work area?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Have appropriate erosion and sediment controls been implemented to prevent spread of contaminated material? Note: Contaminated stockpiles are not to have liquids applied as dust suppressants - stockpiles must be covered with geotextiles, stabilisation matting or other suitable material if dry or windy conditions are forecast	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Is a contaminated spoil stockpile required to remain on site for over 14 days? If YES, the APAM Department Manager or Project Manager must advise the APAM Environment Team in writing as to management controls in place and revised timing for removal.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Contaminated water from dewatering activities</b>			
Are any dewatering activities being undertaken in areas of known or suspected contamination?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
If <b>YES</b> , extracted groundwater is to be collected into IBC's and sampled for waste classification purposes.	<input type="checkbox"/> OK		
Extracted contaminated groundwater is to be disposed of by a suitably licenced waste contractor of offsite disposal at an appropriate waste facility	<input type="checkbox"/> OK		
<b>PFAS</b>			

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Are all works being carried out in accordance with the APAM PFAS Environmental Management Procedure for Project Works? (TBA)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
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**Table 10 Flora and Fauna**

For more information, see EMP Section 5.6

Has the APAM Project Manager reviewed the Environmental Site Register to determine whether the project may be in areas that has or potentially has significant flora and fauna features?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Have works been planned to avoid any removal or disturbance of native flora and fauna (as far as practicable)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
To avoid injury to fauna, all plant, vehicles and equipment must stay within designated areas/ roadways/ access tracks and must comply with any location specific speed limits.	<input type="checkbox"/> OK		
Will regular checks for wildlife be undertaken in work areas? If any wildlife is encountered within a work area, work which may cause harm to that animal must be stopped until the animal has moved on.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are all excavations covered overnight or installed with a means of animal escape?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
The APAM Environment Team are to be contacted if sick or injured wildlife is encountered	<input type="checkbox"/> OK		
<b>Bushfire Prevention</b>			
Are there any adverse weather forecasts or bushfire risk warnings currently in place?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Have high risk construction activities been postponed/suspended/changed if practicable?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Have bushfire risks been discussed with the work crew during the toolbox sessions?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are all personnel aware of, and will adhere to, emergency response plans?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Have all flammable materials been removed from potential ignition sources/hot works areas and are not stockpiled in those areas?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Physical protection of flora and fauna</b>			
Are there any areas of significant flora, fauna or habitat near the work area? If <b>YES</b> , A Vegetation Protection Zone (VPZ) must be established	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has fencing been erected around the VPZ prior to commencement of works? Note, fencing must be installed from the work area side of the VPZ and must not impact the VPZ during installation or removal.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Is the VPZ clearly signed with "Vegetation Protection Area - No Unauthorised personnel, Materials or Equipment beyond this point".	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has a Tree Protection Zone (TPZ) been established?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
All trees to be retained must be protected in tree protection zones (TPZ). The radius of these areas is calculated by multiplying the trunk diameter (measured at 1.4m from the ground) by 12, with a minimum radius of 2m.	<input type="checkbox"/> OK		
Has fencing been erected around the TPZ?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Is a tree management plan to be implemented for retained trees within the work area?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Vegetation Removal</b>			
Will there be any vegetation removal required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
If <b>YES</b> , all tree and vegetation removal works must be in accordance with <i>Melbourne Airport Removal and Replacement of Trees on Airport Property Procedure</i> (Document No. PP010) plus any further specific conditions of approval or permits obtained for the removal of significant vegetation.	<input type="checkbox"/> OK		
Are there any further conditions of approval or permits relating to the removal of significant vegetation?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Native fauna is to be encouraged to relocate from the area prior to vegetation removal work. Unless otherwise stipulated in the environmental assessment and permit conditions, in grassland, this would include slashing grasslands one week prior to removal to a height of 15cm, then again two days prior to removal, to 3cm.	<input type="checkbox"/> OK		
<b>Revegetation of disturbed land</b>			
Will there be any revegetation of disturbed land required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Is there a requirement for a landscape/revegetation plan for the works, and if so, has this been prepared and approved?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Can topsoil be stockpiled to enable replacement at the conclusion of works to maximise native vegetation recovery?			
Are there adequate stabilisation methods available for disturbed surfaces until plant cover is established?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Weed and pest control</b>			
Are weeds or pests present on or in proximity to the site?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has shade-cloth been installed on perimeter fencing to prevent spread of wind-blown weed seeds?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Are adequate weed and pest controls available to manage work areas as weed and pest free?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Weed & pest control is to be undertaken by suitably qualified personnel.	<input type="checkbox"/> OK		
Are there any relevant native vegetation protections or cultural heritage management requirements which will impact on how weeds and pests are managed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA



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Are herbicides and/ or pesticides appropriate for use?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
The use of any materials (i.e. herbicides, pesticides etc.) must be in accordance with the manufacturer's instructions	<input type="checkbox"/> OK		
Herbicide/pesticide use in or adjacent to water bodies and drainage lines must be minimised, with waterway sensitive products used where possible	<input type="checkbox"/> OK		
Any spraying of pesticides for weed control is to be undertaken by spot spraying with appropriate, non-residual herbicide.	<input type="checkbox"/> OK		
Weed disposal must be undertaken in accordance with regulatory requirements	<input type="checkbox"/> OK		
Have plant, equipment and vehicles been visually inspected for weeds and soil prior to mobilisation or use at a work zone?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Is there a designated wash down bay to ensure vehicles, plant and equipment don't spread weeds during transport?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
<b>Prescribed burning controls</b>			
Have all hot work permits been obtained?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Have works been planned with consideration to weather conditions and fire ban days?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Is appropriate firefighting equipment on hand at the work site, and are staff trained in it's use?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Will construction equipment, (i.e. earth moving machinery & water trucks) be on stand-by at the site during works in high fire risk areas if fire control is required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA

**Table 11: Heritage**

For more information see EMP, Section 5.7

For more information see EIM ; Section 5.7			
Has the APAM Project Manager reviewed the Environmental Site Register to determine whether the project may be in areas that has or potentially has significant heritage value?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has a project specific heritage assessment been carried out on site prior to planning approval?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has the site induction included awareness of potential forms cultural heritage locations/items and what to do in the case of an unexpected find? (See EMP Section 5.7)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Has any potential heritage features been identified in/near the work area? If Yes,	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
The following steps must be followed if an item of potential heritage significance is found: <ul style="list-style-type: none"><li>■ Stop work, protect the item and inform the APAM Project Manager and the APAM Environment Manager.</li><li>■ Engage a suitably qualified professional to make an assessment of the find.</li><li>■ Establish and implement a heritage management plan.</li><li>■ Make required notifications to the regulatory authority.</li><li>■ Review work plan and adjust if required to adhere to heritage management plan.</li><li>■ Resume works.</li></ul>	<input type="checkbox"/> OK		
<b>Physical protection of known heritage sites</b>			
Has a Heritage Protection Zones (HPZ) been established to protect all areas of heritage significance? The following measures must be undertaken to protect HPZs;	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Fencing must be erected around relevant areas of heritage significance	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Fencing must be clearly signed with "Heritage Protection Area - No Unauthorised personnel, Materials or Equipment beyond this point"	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Fencing must be installed from the construction site side with all waste materials removed immediately. The areas inside the zone must not be impacted by the installation (or removal) of fencing	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
HPZs can only be accessed by suitably qualified personnel for the purpose of approved maintenance or inspections (i.e. weed control)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Each HPZ must be established prior to works commencing with fencing & signage maintained intact for the duration of the works (and repairs made when required).	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA

## APPENDIX E

### **Dangerous Goods Manifest Template**

## DANGEROUS GOODS REGISTER

VICTORIAN DANGEROUS GOOD (STORAGE AND HANDLING) REGULATIONS 2012

Name of Site Owner:	
Name of occupier of the premises (if not the same as above)	
Address of premises:	
Date of preparation:	

### Emergency contact details

Contact	Position	Work Phone No.	Mobile Phone No.

### Principal Activities Involving Dangerous Goods

- |                         |                          |
|-------------------------|--------------------------|
| Chemical processing     | <input type="checkbox"/> |
| Storage/warehousing     | <input type="checkbox"/> |
| Blending/ mixing        | <input type="checkbox"/> |
| Repacking               | <input type="checkbox"/> |
| Transport/ Distribution | <input type="checkbox"/> |
| Service station         | <input type="checkbox"/> |
| Retail                  | <input type="checkbox"/> |
| Other                   | <input type="checkbox"/> |

Does the premises store or handle dangerous goods in excess of the relevant quantities specified in Schedule 2 of the Dangerous Goods (Storage and Handling) Regulations 2012?

YES ☐ NO ☐

Does the premise have a current WorkSafe Notification or Dangerous Goods Licence?

YES ☐ NO ☐

# MELBOURNE AIRPORT

## 1. Details of Dangerous Goods stored and handles in bulk or as packaged dangerous goods

Area/Tank Identification Number (as shown on site plan)	Quantity in Packages Note 1	(kg or L)	Quantity in Bulk Note 2	(kg or L)
2.1 Flammable gases				
2.2 Subsidiary risk 5.1, Non-flammable, non-toxic gases				
2.2 Other, Non-flammable, non-toxic gases				
2.3 Toxic gases				
Aerosols				
Cryogenic fluids				
3 Flammable liquids				
4.1 Flammable solids, self-reactive substances and solid desensitised				
4.2 Substances liable to spontaneous				
4.3 Substances which in contact with water emit flammable gases				
5.1 Oxidizing substances				
5.2 Organic peroxides				
6.1 Toxic substances				
8 Corrosive substances				
9 Miscellaneous dangerous substances and				

## 2. C1 combustible liquids stored and handled in bulk or as packaged dangerous goods

Description and Detail of C1 Combustible Liquid e.g. Product name and/or flashpoint	Quantity in Packages Note 1	(kg or L)	Quantity in Bulk Note 2	(kg or L)

NOTE 1: The following should be used when determining the quantity of dangerous goods stored and handled in packages - see regulation 11(2):

Types Of Goods	What to Measure	Units
Solid (excluding Class 2 dangerous goods)	Net mass of the goods in the container	Kilograms
Liquid (excluding Class 2 dangerous goods)	Net capacity of the container	Litres
Class 2 (gases)	Total capacity of the container	Litres

# MELBOURNE AIRPORT

NOTE 2: The following should be used when determining the quantity of dangerous goods stored and handled in bulk - see regulation 11(3):

Types Of Goods	What to Measure	Units
Solid (in a container) (excluding Class 2 dangerous goods)	Mass that the container is designed to hold	Kilograms
Solid (not in a container)	Undivided mass	Kilograms
Liquid (excluding Class 2 dangerous goods)	Design capacity of the container	Litres
Class 2 (gases)	Total capacity of the container	Litres

### 3. Goods too dangerous to be transported

Indicate the Product name and maximum quantity of any goods too dangerous to be transported

Product Name of Goods too Dangerous to be Transported	Max. Quantity

## APPENDIX F

### **Melbourne Airport PFAS Management Framework (Final Draft)**