



New Runway Project

PRELIMINARY DRAFT
MAJOR DEVELOPMENT PLAN

**VOLUME B: ENVIRONMENT,
HERITAGE AND TRAFFIC
ASSESSMENT** SECTIONS 8-18
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Appendices

Glossary of Terms

03L/21R

Existing main runway designation

03R/21L

New runway designation

06/24

Existing cross runway designation

Airshed

A geographical area within which the air frequently is confined or channeled, with all parts of the area thus being subject to similar conditions of air pollution.

Airside

The movement area of an airport, adjacent terrain and building or portions thereof, access to which is controlled.

Approaches

The course to be followed by an aircraft in approaching for a landing or in joining a traffic pattern.

Apron

A defined area on a land aerodrome intended to accommodate aircraft for loading and unloading passengers, mail or cargo, fuelling, parking or maintenance.

Average Return Interval (ARI)

A measure of the rarity of a rainfall event. e.g. 1 in 50 year, 1 in 100 year etc. It is defined as the average, or expected, value of the periods between exceedances of a given total rainfall accumulated over a given duration. Periods between exceedances are random.

Baseline

A specific value or values that can serve as a comparison or control a basic standard or level; guideline.

Bio-accumulative

The accumulation within living organisms of toxic substances occurring in the environment.

Bund

An embankment of earth or a wall constructed of brick, stone or concrete to form the perimeter of a compound that will prevent lateral movement of the material contained within the embankment or wall.

Corridor

A restricted path along which an aircraft must travel to avoid hostile action, other air traffic, etc.

Declared Rare Flora

The flora protected under the *Wildlife Conservation Act 1950* (State) due to it being rare, in danger of extinction, or otherwise in need of special protection

Detention Storage

An area that will temporarily store water until the downstream drainage network has capacity to drain the stored water

Dewatering

Removal or draining groundwater or surface water from a riverbed, construction site, caisson, or mine shaft, by pumping or evaporation.

Environmental Incident

Any event or impact on the environment involving Perth Airport and/or its contractor's actions or assets that is capable of:

- causing harm to the environment or any person or property,
- causing pollution, and/or
- coming to the attention of an environmental regulatory agency.

Estate

The grounds and tenancies associated with the Perth Airport land holdings.

Eulerian model

Defines specific reference points in a gridded system that monitors atmospheric properties, including temperature, pressure, chemical concentration of tracers, over time.

Events per year (EY)

Used as the measure of the rarity of a rainfall events that are likely to occur once or more than once per year. E.g. two EY is used to indicate a rainfall event that is likely to occur two times per year or more.

Excavator

A machine used for excavating soil or sediment material and may include a backhoe excavator, bulldozer, dredge or other similar equipment.

Fauna

The animals of a given region or period considered as a whole.

Flora

The plants of a particular region or period, listed by species and considered as a whole.

Grade separation

Method of aligning a junction of two or more surface transport axes at different heights (grades) so that they will not disrupt the traffic flow on other transit routes when they cross each other

Gaussian model

In probability theory and statistics, a Gaussian process is a particular kind of statistical model where observations occur in a continuous domain, e.g. time or space. In a Gaussian process, every point in some continuous input space is associated with a normally distributed random variable.

General Aviation (GA)

Refers to all flights other than military and scheduled airline flights, both private and commercial.

Greater Perth

Used to describe Perth's Greater Capital City Statistical Area (GCCSA), a geographical area designed to represent the functional extent of Western Australia's capital city. Greater Perth consists of the area defined by the Perth Metropolitan Region, with the City of Mandurah and the Pinjarra Level 2 Statistical Area of the Shire of Murray

Greenfield Area

An undeveloped or agricultural tract of land that is a potential site for industrial or urban development.

Ground Disturbing Activities

The disturbance of earth or waters involving machinery including clearing, excavation, backfilling and compacting, but excludes geotechnical investigations, surveying, fencing and rehabilitation works.

Ground-based

Located on the ground as opposed to in an aircraft or in airspace.

Habitat Tree

Mature native tree containing hollows that may be suitable for habitat of native fauna.

Hardstand

A hard-surfaced area on which heavy vehicles or airplanes can be parked.

Hydraulics

Study of the motion of liquids using the laws of physics. In this case, flow in open channels, pipes, weirs and another stormwater infrastructure.

Hydrology

Study of the stormwater runoff generated by rainfall in connection with geography and geology. e.g. An asphalt road generates more runoff per square meter than a lawn does.

Initial Ground Disturbing Activities

The disturbance of earth or waters involving machinery including clearing and excavation to a depth of 0.5 metres, but excludes geotechnical investigations, surveying, excavation in excess of 0.5 metres, backfilling, compacting, fencing and rehabilitation works.

Lagrangian model

Takes the perspective of a finite element or so-called 'air parcel'. Over time both the position and properties of this air parcel are calculated according to the mean wind field data. The path along which air parcel travels is called its trajectory.

Landside

That portion of an airport not designated as airside and to which the general public normally has free access.

Living Stream

A constructed or retrofitted waterway that mimics the characteristics of a natural stream. Water quality improvement is achieved by aquatic vegetation and natural biological processes helping to oxygenate the water and removing nutrients plus non-nutrient contaminants.

Movement

Either a take-off or a landing by an aircraft.

Movement areas

That part of an aerodrome to be used for the surface movement of aircraft, including the manoeuvring areas and aprons.

N65 Contour

N65 contour map for Perth Airport illustrates the average number of events per day over 65 decibels dBA for a particular area. This corresponds to an outdoor sound level of 65 decibels dBA and an indoor noise level of approximately 55 decibels dBA.

Native Vegetation

Any local indigenous plant community containing throughout its growth the complement of native species and habitats normally associated with that vegetation type or having the potential to develop these characteristics. It includes vegetation with these characteristics that has been regenerated with human assistance following disturbance. It excludes plantations and vegetation that has been established for commercial purposes.

Noise Contour

Developed by the [then] Commonwealth Department of Infrastructure and Transport to illustrate the average number of events per day that exceed a certain sound level.

Noise Event

An event begins when the noise level exceeds a certain threshold value set in the noise monitor (which will be above the background noise level) and ends when the noise level drops below it.

Phytophthora

A group of fungi of the genus *Phytophthora*, which cause a serious plant disease.

Pollution

The direct or indirect alteration of the environment to its detriment or degradation, to the detriment of an environmental value, or is of a prescribed kind from an emission (as defined by the *Environmental Protection Act 1986* (State)).

Precinct

A space or place of definite or understood limits.

Priority Flora

Flora that is recognised by the Department of Biodiversity Conservation and Attractions as being under threat and in urgent need of further study; but is not yet declared rare flora under the *Wildlife Conservation Act 1950* (State). Priority Flora is divided into Priority 1, Priority 2, Priority 3 and Priority 4 listings, with Priority 1 being the flora most under threat.

Receptor

Various devices that receive information, signals etc

Retention Storage

An area that will store water until it has infiltrated into the ground and/or evaporated.

Step-Change

A significant change, especially an improvement

Taxiway

A defined path on an aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another.

Water level indicator

A round steel post with a flat marked gauge plate of white background and black one-centimetre increment gauge markings each with a total nominal length of two metres.

Watercourse

A river, creek, gully, brook or irrigation channel that contains or has contained water, but excludes wetlands.

Wetland

Land that is permanently, seasonally or intermittently waterlogged or inundated with water, but excludes watercourses.

Windrow

Line of stockpiled material, such as soil or vegetation.

Acronym / Abbreviation

AAQ NEPM	National Environment Protection (Ambient Air Quality) Measure
ASS	Acid Sulfate Soils
ACC	Airport Control Centre
ACERT	Airport Carbon and Emissions Reporting Tool
ACERT	Airport Carbon and Emissions Reporting Tool
ACM	Asbestos Containing Material
AEO	Airport Environment Officer
AEP	annual exceedance probability
AEPR	Airport Environment Protection Regulations 1997
AF	Ascot Formation
AH Act	Aboriginal Heritage Act 1972
AHD	Australian Height Datum
Airports Act	Airports Act 1996
APU	Auxiliary Power Unit
AQI	Air Quality Index
ARFF	Aviation Rescue and Fire Fighting
ARI	Average Return Interval
ARR	The ARR document is a national guideline that can be used for the estimation of design flood characteristics in Australia and is published and supported by the Australian federal government
AS	Australian Standards
ATSIHP Act	Aboriginal and Torres Strait Islander Heritage Protection Act 1984
BAM Act	Bioscurity and Agriculture Management Act 2007
BC Act	Biodiversity Conservation Act 2016
BS	Bassendean Sand
CA	Catchments Areas
CAMBA	China-Australia Migratory Bird Agreement
CD	Completely Degraded
CEMP	Construction Environmental Management Plan
CH₄	Methane
CMS	Convention on the Conservation Migratory Species of Wild Animals (also referred to as the Bonn Convention)
CMS	Conservation of Migratory Species of Wild Animals (CMS)
CO	Carbon monoxide
CO_{2-e}	Carbon dioxide equivalent
CORTN	Calculation of Road Traffic Noise
CSR	Chromium reducible sulfur
D	Degraded
dB	Decibels of noise
dBA	A-weighted decibel
DBCA	Department of Biodiversity, Conservation and Attractions (State)
DCCEE	Department of Climate Change and Energy Efficiency (Commonwealth)
DCH8	Dash 8-300
DD	Data Deficient

DEE	Department of the Environment and Energy (Commonwealth)
DER	Department of Environmental Regulation (State)
DIDMS	Dieback Information Database Management System
DIRDC	Department of Infrastructure, Regional Development and Cities (Commonwealth)
DMP	Dewatering Management Plan (DMP)
DoE	Department of Environment (now DEE) (Commonwealth)
DPaW	Department of Parks and Wildlife (now DBCA) (State)
DPLH	Department of Planning, Lands and Heritage (State)
DRR	Disease risk road
DSEWPAC	Department of Sustainability, Environment, Water, Population and Communities (now DEE) (Commonwealth)
DWER	Department of Water and Environmental Regulation (WA)
EGR	Engine Ground Running
EIS	Environmental Impact Statement (EIS)
EMF	Environmental Management Framework
EMP	Environmental Management Plan
EMS	Environmental Management System
EN	Endangered
ENM	Environmental Noise Model
EPA	Environmental Protection Authority (WA)
EPBC Act	Environment Protection and Biodiversity and Conservation Act 1999
EPNR	Western Australian Environmental Protection (Noise) Regulations 1997
EY	Events per Year”
F100	Fokker 100
FAC	Federal Airports Corporation
FCT	Floristic Community Type
fGPU	Fixed Ground Power Unit
FOLS	Fuels and Organic Liquid Storage
GA	General Aviation
gDWm²	Grams dry weight per square metre
GF	Guildford Formation
GHG	Greenhouse Gas
GHGI	Greenhouse Gas Index
GIS	Geographic Information System
GS	Gnangara Sand
GSE	Ground Service Equipment
HIAL	High Intensity Approach Lighting
hrs	Hours
HSL	Health Screening Levels
ICOMOS	International Council on Monuments and Sites
IF	Influencing Factor
JAMBA	Japan-Australia Migratory Bird Agreement
kg	Kilograms
km	Kilometre

KS	Kardinya Shale Member fines dominated
kt	Kilotonnes
LOR	Laboratory limit of reporting
m	Metre
m²	Square metre
m³	Cubic metre
mAHD	Metres Australian Height Datum
Main Roads	Main Roads Western Australia
MDP	Major Development Plan
MDS	Perth Airport Master Drainage Strategy
mg	Milligrams
MG	Fill
mg/L	Milligrams per litre
ML	Megalitre
ML/y	Megalitres per year
MM	Mirrabooka Member
MMS	Perth Airport has a Maintenance Management System
MNES	Matters of National Environmental Significance
MOS	Manual of Standards
MSDS	Materials Safety Data Sheet
MWh	Megawatt hour
NCA	Noise Catchment Area
NE	Not Evaluated
NEPM	National Environment Protection Measure
ng/m³	Nanograms per metre cubed
NGER	National Greenhouse and Energy Reporting
NMD	Northern Main Drain
NO₂	Nitrogen dioxide
NO_x	Oxides of nitrogen
NPI	National Pollutant Inventory
NRP	New Runway Project
NT Act	Native Title Act 1993
NZTA	New Zealand Transport Agency Model Development Guidelines
O₃	Ozone
°C	Temperature in degrees Celsius
OEMP	Operational Environmental Management Plan
OF	Osborne Formation
OHP	Other Heritage Place
OU/m³	Odour units
OW	Open Water
PASS	Potential Acid Sulfate Soils
PEC	Priority ecological communities
PFAS	Per- and poly-Fluoroalkyl Substances

PFOA	perfluorooctanoic acid
PFOS	Perflorooctanesulfonate
PM₁₀	Particulate matter with aerodynamic diameter less than 10 µg/m ³
PM_{2.5}	Particulate matter with aerodynamic diameter less than 2.5 µg/m ³
PMP	Probable Maximum Precipitation
PMPDF	Probable Maximum Precipitation Design Flood
ppm	Parts per million
RAV	Restricted Access Vehicles
ROKAMBA	Republic of Korea-Australia Migratory Bird Agreement
ROM	Regional Operations Model
RV	Revegetation
RWI Act	Rights in Water and Irrigation Act 1914
SCP	Swan Coastal Plain
SL	South Lake
SMD	Southern Main Drain
SO₂	Sulfur dioxide
SO_x	Oxides of sulfur
SPL	Sound Pressure Level
SWALSC	South West Aboriginal Land and Sea Council
SWIS	South West Interconnected System
TEC	Threatened Ecological Community
TFP	TFP Database
TVOC	Total Volatile Organic Compounds
ULP	Unleaded petrol
VEM	Visual Envelope Map
VHT	vehicle hours travelled
VKT	vehicle kilometres travelled
VOC	Volatile Organic Compound
VSA s	Vegetation and Substrate Associations
WAPC	Western Australian Planning Commission
WC Act	Wildlife Conservation Act 1950
WONS	Weeds of National Significance
WST	Western Standard Time

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