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Bankstown Airport

Master Plan  
2004/05



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## 23.1 Overview

Management of the environmental impacts of Bankstown Airport's operation is an integral part of the overall management of the Airport. BAL's management team includes a dedicated environmental management resource with responsibility for the development and implementation of BAL's AES. BAL has a strong commitment to environmental management at Bankstown Airport which is reflected in the policies and strategies it has adopted to date.

To assist in the overall understanding of how environmental issues are managed at Bankstown Airport, this MP includes the following aspects:

- an explanation of the environment regulatory framework;
- details of BAL's AES;
- the environment management framework at Bankstown Airport;
- the environmental issues raised by this MP and the way in which these issues are proposed to be addressed; and
- on-going regulation and management of environment issues at BAL.

BAL's objectives of sustainable environmental management are:

- energy efficient development;
- reduction in greenhouse gas emissions wherever possible;
- water and wastewater reuse;
- waste avoidance, recycling and reuse to reduce waste to landfill;
- noise management;
- building design using Green Building Council of Australia or similar guideline;
- mitigation of direct adverse social impacts and optimisation of social benefits of Bankstown Airport; and
- structured and transparent engagement with the community throughout the life of the Master Plan.

## 23.2 Regulatory Framework

Environmental management at Bankstown Airport is regulated through the Airports Act 1996, the Airports (Environment Protection) Regulation 1997 and the AES. The regulatory requirements are administered by DoTaRS' representative, the Airport Environment Officer (AEO). The Airport is also subject to other Commonwealth legislation such as the Environment Protection and Biodiversity Conservation Act 1999. BAL has responsibility to comply with the regulatory requirements and to encourage its tenants to comply with the regulatory requirements.

The AEO works with BAL's Environment Manager in managing the environmental impacts of Bankstown Airport's activities. The AEO decides whether regulatory action is required in relation to regulatory non-compliances. The AEO has the authority to issue notices and orders in the event of breaches of the Act, Regulations and AES. The AEO also regulates the performance of BAL's tenants. BAL provides assistance to its tenants in meeting their regulatory obligations.

Development at the Airport is regulated via this DMP, the planning and approval process prescribed by the Airports Act 1996, the Airports (Environment Protection) Regulation 1997 and the Airport (Building Control) Regulations.

## 23.3 Bankstown Airport Environment Strategy

BAL commits to undertake the initiatives included in its AES.

Environmental issues at Bankstown Airport are managed in accordance with the AES, which has been prepared in consideration of the requirements of the Airports Act 1996 and the Airports (Environment Protection) Regulations 1997. The AES outlines the Airport's overall approach to environmental management and includes the following information:

- the Airport's Environmental Policy;
- description of airport operations and environmental regulatory regime;
- overview of the Airport's environmental management system;
- summary of environmental initiatives undertaken during the life of the previous Environment Strategy;
- description of the sources of environmental impact at the Airport; and

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- objectives, targets and proposed initiatives to manage the potential impacts of activities at the Airport on the environment.

The environmental issues addressed in the AES include:

- air quality;
- water quality;
- soil quality;
- noise;
- flora and fauna;
- heritage;
- waste;
- resource use;
- social and community;
- environmentally significant areas; and
- sites of indigenous significance.

The AES is required to be updated every 5 years. The current AES was approved in February 2005 and is due for updating by February 2010. A summary of the issues in the AES is discussed in Section 23.5.

The AES takes into consideration the development framework identified in this MP and provides the basis for environmental management of the potential environmental impacts that may arise from implementation of the Master Plan.

A summary of environmental issues and management measures at the Airport over the next 20 years is presented in this MP. Further information regarding environmental management at the Airport over the next five years is contained in the AES.

### 23.4 Environmental Management Framework

The Airport maintains an Environmental Management System which contains many of the elements of the international standard *AS/NZS ISO14001:1996 Environmental Management Systems – Specification with Guidance for use*. The EMS documentation comprises the AES, Environmental Policy, an Environmental Management Manual, an Environmental Site Register, and various procedures, reporting frameworks and guidelines.

BAL will progressively update the EMS to reflect initiatives contained in the AES and ensure consistency with ISO14001. As part of the EMS development, BAL is exploring options for a computer based Airport Risk Management System to facilitate day-to-day management of environmental risks at the Airport. When completed, the EMS will be subject to internal audits every two years.

Environmental Management Plans (EMPs) are used by BAL to manage particular environmental issues, such as water quality, and the potential impacts of individual developments. Tenants with moderate (Tier 2) to high (Tier 1) environmental risks are also required to develop an EMP for the management of their activities. This is discussed in more detail in the AES.

BAL implements environmental training programs where appropriate to ensure its personnel and tenants have the required skills to effectively manage the potential impacts of their activities.

Environmental monitoring is undertaken as needed to investigate particular environmental issues, such as stormwater and groundwater quality.

BAL undertakes a program of audits of tenant facilities in cooperation with the Airport Environment Officer (AEO). Tenants are tiered on the basis of environment risk, with Tier 1 being high environmental risk and Tier 3 being low environmental risk. Tier 1 tenants are audited annually. Tier 2 and Tier 3 tenants are audited every two years.

Non-conformances identified through environmental audits, routine inspections and incidents are managed through BAL's non-conformance, corrective and preventive action process.

BAL submits an Annual Environmental Report to DoTaRS each year. BAL also prepares an Annual Public Environment Report, which is made available to the public via the Internet or upon request.

National Pollutant Inventory (NPI) reporting is undertaken by those tenants who exceed the thresholds for reporting under NPI legislation. Such reporting is made public via the NPI website. The NSW DEC is also responsible for undertaking aggregate emissions estimations every 5 years and reporting this on the NPI database.

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## 23.5 Environmental Issues

A detailed description of key environmental issues and management measures at the Airport is presented in the AES. A summary of environmental issues and management at the Airport over the next 20 years is provided in this MP.

The environmental issues which may arise during the planning period include but are not limited to:

- air quality;
- surface water quality;
- groundwater quality;
- contaminated soil;
- ground-based noise;
- aircraft noise (covered separately in Section 24);
- flora and fauna;
- heritage;
- resource efficiency;
- social and local economic impacts;
- construction related environmental impacts; and
- built form and urban design.

Environmental impacts arising from the Development Concept included in this MP will be determined and assessed during the development approval process for individual projects, with appropriate management actions established prior to approval being given by the AEO.

### 23.5.1 Air quality

The NSW Government's Air Quality Management Plan, entitled *Action for Air* (NSW Government, 1998) identified the key areas for action for managing Sydney's air quality over the next 25 years. Airport related air quality issues were not regarded as significant in the *Action for Air* document. Instead motor vehicles and wood fire heating were identified as the major sources of concern for pollutants in the Sydney Basin. Aviation emissions were found to be a minor contributor to total airshed emissions. Emissions from Bankstown Airport comprise a minor component of total aviation emissions in Sydney. Ground-based emissions comprise a relatively small proportion of the emissions from Bankstown Airport. A review of such emissions concluded that general

ambient monitoring of Airport emissions would not provide useful information on the effectiveness of control measures.

The focus of management of air emissions at Bankstown Airport is on point source emissions. Modelling of selected point sources of air emissions at the Airport concluded that the current sources were small in terms of emissions and unlikely to create adverse air quality impacts in the local airshed. NPI reporting by the tenants containing the main point sources of air emissions and the aggregate emissions reported by the DEC are used by BAL to track the quantity of emissions. Audits of tenant facilities are used by BAL to inspect and promote effective management of the point sources to reduce the quantity of emissions of air pollutants.

The development proposed under this MP will involve construction activities and operations typical of urban commercial and light-industrial developments which may result in minor increases in diffuse source emissions of some air pollutants, particularly associated with road vehicle movements.

Emissions generated from vehicle traffic to, from and on Bankstown Airport associated with aircraft movements are not expected to be significant. As the airport is further developed for aviation and non-aviation activities, the emissions of air pollutants generated will increase with the increase in vehicular traffic.

The potential increases in air emissions will be offset to some extent by measures such as:

- energy efficient designs of buildings;
- upgrade of older facilities and replacement with modern facilities;
- use of environmental management plans to reduce emissions during the construction stage of new developments;
- encouragement and promotion of public transport and bicycle paths; and
- improvements in technology of aircraft and road vehicles with a move towards low emission aircraft and vehicles.

BAL will continue to manage air emissions via the development assessment and approval process, use of environmental management plans during construction and auditing of tenants' operations. Monitoring of point sources will be undertaken in the

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event of identified concerns and the presence of applicable standards to evaluate performance.

### 23.5.2 Surface Water Quality

The whole of Bankstown Airport is located within the catchment of the Georges River. A number of activities undertaken at the airport have the potential to affect the water quality of the Georges River, including:

- spills and leaks through aircraft servicing and maintenance (including washing and refuelling);
- vehicle refuelling, washing and maintenance;
- construction and maintenance activities;
- bulk liquids storage and handling; and
- vehicle traffic to and from the Airport.

Surface water quality monitoring has been undertaken at the five discharge points from the Airport. The monitoring results are used in conjunction with findings of tenant audits and airport inspections to develop management actions to reduce the discharge of pollutants to surface waters. The potential impacts of construction works on water quality are managed via the airport's environmental assessment and approval process for new developments.

Development of the Airport in accordance with the MP will provide opportunities to improve the design and condition of existing facilities at the Airport to reduce emissions of pollutants to surface water and ensure new developments are designed, constructed and operated in accordance with Ecologically Sustainable Development (ESD) principals for water management, such as examining options for stormwater retention and reuse.

### 23.5.3 Groundwater Quality

The groundwater beneath Bankstown Airport is not a significant resource and is not used for drinking water supply. The groundwater yield is generally low and the groundwater saline. Potential sources of groundwater pollution at the airport include:

- leakage from underground fuel tanks;
- spillage of fuels and chemicals;
- chemical use (such as pesticides/herbicides); and
- historical activities, such as land filling.

Groundwater monitoring has been undertaken at three areas of the Airport associated with historic in-ground disposal of wastes and industrial activities. Contamination has been identified at one site and is subject to an ongoing management plan. Ongoing groundwater monitoring and management of airport operations and future developments will be used to manage groundwater quality at the Airport.

### 23.5.4 Soil contamination

Bankstown Airport was established in 1940 and numerous activities and processes have been undertaken that have been identified as potential or actual sources of soil contamination. The potential and actual sources of soil contamination have been reviewed and documented in a Contaminated Site Register. The contaminated sites are investigated and managed on a priority basis according to the risk each site presents to the environment.

Management of the contamination risk presented by current tenants is generally done through the provisions of the Airports (Environment Protection) Regulations 1997 and strict lease clauses concerning environmental performance and development controls that are imposed upon all tenants.

BAL also has procedures that allow for BAL and the AEO to investigate soil quality at the commencement and termination of tenant leases.

The AEO has not directed preparation of an expert site examination report on soil contamination as per Regulation 6.09 with respect to an area of the airport where a change of use of a kind described in sub-regulation 6.07(2) is proposed. The environmental impacts of individual developments will be undertaken as part of BAL's development assessment process. This process considers soil contamination issues as required by the Regulations.

### 23.5.5 Ground-based noise

The major sources of ground-based noise at the airport include:

- ground running of aircraft engines;
- aircraft servicing;
- mechanical plant and servicing equipment;
- operation of fixed audible alarm or warning systems;

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- construction activities; and
- road vehicular traffic.

BAL has adopted a number of management actions to reduce and monitor the potential impacts of ground-based noise on neighbouring residents, including assigning designated aircraft run-up areas and restrictions on timing of maintenance run-ups through its engine ground running guidelines.

Noise emissions from tenant activities are addressed in the annual environmental audits of Tier 1 and selected Tier 2 tenants.

All developments at the Airport are required to address potential noise and vibration impacts during the development planning and approvals stage.

The MP also plans for the implementation of a non-aviation buffer along the northern and eastern boundaries of the Airport site (Employment Zone) to provide a reduction in impacts of ground running noise on nearby residents. Existing aviation activities in this area would be relocated further within the Airport site.

The MP also plans for the construction of a ring-road which will facilitate vehicle movement within the Airport site and multiple entry-exit points to the Airport. The ring road is anticipated to reduce the impacts of traffic noise within and adjacent to the Airport site.

One of the positive impacts of the non-aviation buffer zone and ring road will be to reduce noise impacts on residents to the north of the Airport. BAL will continue to manage noise emissions via the development assessment and approval process, use of environmental management plans during construction and auditing of tenants' operations. Monitoring of noise sources will be undertaken in the event of significant concerns being identified.

### 23.5.6 Flora and Fauna

The Airport is located within an urban setting and, except for the bushland areas adjacent to Deverall Park, vegetation is limited to open grasslands and isolated pockets of re-growth shrub or park-like plantings within the airport's developed areas. Ongoing operations at the airport have minimal impact upon native flora and fauna.

Minimal clearing of vegetation is likely to be required for future development of the areas identified in the

Master Plan for development. The potential impacts of such clearing would be assessed during the development planning assessment and approval stage for each development.

BAL is committed to the conservation of the bushland adjacent to Deverall Park, as discussed in the AES.

### 23.5.7 Heritage

Bankstown Airport has been extensively cleared and regraded over the majority of its area to make it suitable for its present purpose. No sites or items of indigenous significance have as yet been identified on or adjacent to Bankstown Airport, and the potential for such sites or items to be present is considered to be low. Therefore the operation and future development of the airport is not likely to have a significant impact upon indigenous heritage values of sites or items.

Bankstown Airport was first developed during World War II as No. 2 Aircraft Park. Activities on the site included maintenance and construction of military aircraft. Facilities established included aircraft hangers and barracks on the north side of the Airport, and hangars and other manufacturing buildings at the Hawker de Havilland facility on the south side of the Airport. Twenty-two RAAF units and fighter squadrons were established at the Airport during the war.

The Airport has historical significance as the location of an RAAF station from the 1940s to the 1960s. A number of the remaining buildings have heritage significance relating to their use during this time.

This MP provides for the conservation of those buildings of particular heritage significance and the chevron ('V') shaped alignment of hangars at the southern end of Airport Avenue, on the northern part of the site. A Heritage Management Strategy is being prepared for the Airport, taking into account recent changes to the Department of Environment and Heritage and heritage protection provisions under Commonwealth legislation. Specific heritage management plans will be prepared for those developments which involve areas containing buildings identified as having heritage significance. The heritage management plans will take into account the heritage management policies and guidelines defined in the Heritage Management Strategy.

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### 23.5.8 Resource Efficiency

BAL's environment strategy includes that any proposed developments – either by BAL or by other proponents – incorporate resource efficiency and sustainability principles. New developments will incorporate to the extent practicable key principles such as energy efficiency and water stormwater retention and re-use.

### 23.5.9 Built-form and Urban Design

The MP establishes various zonings over the site encouraging development of both Aeronautical and Non-Aeronautical activities. The construction of building forms, paved areas and infrastructure on the Airport site will involve the potential for environmental impacts including the range of issues described in the above sections, together with impacts associated with the streetscape and visual quality of the area and the potential for amenity-related impacts on nearby residential properties. The MP contains broad objectives that call for the integration and cohesive planning of areas within the Airport site. More detail and appropriate controls will be developed to assist in implementing these objectives and to address the range of potential impacts arising from construction activity and built form. Future development on the Airport will be required to consider sustainability, built form and urban design issues as part of the development assessment process.

## 23.6 On-Going Regulation & Management

All construction projects at Bankstown Airport are subject to environmental assessment and approvals processes under the Airports Act 1996, the Airports (Environment Control) Regulations 1997 and the Airports (Building Control) Regulations 1996. Construction projects must also be consistent with the AES, the Airport Master Plan and any approved Major Development Plans. Generally, a proponent would submit a Development Approval (DA) application to BAL, which is then assessed for potential environmental impacts and the effectiveness of the proposed management measures. Development may also be subject to subsequent approval by the ABC, depending on the nature of the proposed development.

The proponent is required to notify the ABC of proposed exempt building activities under the Airports (Building Control) Regulations 1996.

The DA may contain conditions relating to environmental management of the development and in particular the preparation of an environmental management plan for the development. The environmental management plans are subject to audit and inspection by BAL and the AEO.

If a development is of environmental significance, the preparation of a Major Development Plan (MDP) under the Airports Act 1996 will be required. In general this requirement applies to developments such as runways, taxiways, terminals, major road works, and developments which exceed a cost threshold or add significantly to airport capacity; or developments of a kind that are likely to have significant environmental or ecological impact, or which affect an area identified as environmentally significant in the AES. The development may not proceed until approved by the Minister and must be referred to the Commonwealth Environment Minister as part of the assessment process. DAs for developments subject to a MDP also require the approval of BAL as well as the approval of the ABC where non-exempt building activities are involved.

To assist BAL in deciding whether a proposal is environmentally significant, BAL can require a proponent to prepare an assessment of environmental impacts to be submitted with the DA. The assessment of environmental impacts would be required to detail all potential impacts, and all measures to be undertaken to mitigate the impacts.

Once the DA process is complete, the proponent submits a Construction Application (CA) to BAL. If potential impacts of construction are considered to be environmentally significant, BAL will require a Construction EMP to be prepared.

BAL will liaise with Bankstown City Council on DAs relevant to Council. BAL will also identify other stakeholders who may be impacted by the proposed development, and consult with these stakeholders prior to deciding whether to grant development approval.