

29 Conclusion

29.1 Introduction

This chapter summarises the justification for the proposed airport and potential environmental impacts, including anticipated benefits and the consequences of not proceeding.

29.2 Justification of the proposal

Airports are key international gateways for passenger and freight transport, taking on an increasingly important economic role in a globalised economy. Sydney, in particular, is reliant on the aviation system to maintain its status as a global city, tourist destination and major financial and services centre in the Asia Pacific region.

The need for a second airport in Sydney is driven principally by the increasing demand for aviation services in both Western Sydney and the Sydney region in general, and the limited capacity of existing airports to accommodate the predicted growth.

Strategic alternatives to the development of a new airport in Western Sydney have been considered over a number of decades. Commonly referenced alternatives include increasing the capacity of Sydney (Kingsford Smith) Airport or other existing airport facilities, establishing a new airport outside the Sydney basin, or developing a regional high speed rail network. While these alternatives have demonstrated potential to provide marginal capacity benefits, they would not replace the need for the proposed airport. Detailed studies have been undertaken over a number of decades to assess these options and have consistently found that the most effective way to address increased aviation demand, while mitigating environmental and social impacts, is to develop a new airport at Badgerys Creek.

Western Sydney is identified as the source of many of Sydney's greatest opportunities for economic and employment growth in the NSW Government's A Plan for Growing Sydney (DP&E 2014). It is also a region in which several of Sydney's challenges are most pressing, such as ageing infrastructure, housing demand, growth and access to employment.

Development of the proposed airport would be a catalyst for investment and job creation in the region by accelerating the delivery of vitally important infrastructure and the release of employment and housing land, and providing a long term and diverse source of local jobs and economic activity. Additionally, the proposed airport would improve access to aviation services for the growing population of Western Sydney.

29.2.1 Summary of benefits of the proposal

Proceeding with the proposal would provide the following key benefits:

- Additional aviation capacity for Sydney – existing airports in the Sydney basin do not have the capacity to absorb future aviation demand. The proposed airport would provide the additional capacity to meet increases in demand over the long term;
- Access to aviation for Western Sydney – providing Western Sydney with better access to aviation services and accelerating critical infrastructure and urban development in the region; and
- Economic benefits – Generating opportunities for employment growth and increased economic development in the Western Sydney region.

29.2.2 Alternatives considered

The development of a new airport at Badgerys Creek has consistently been found to be the most effective solution to address long term aviation demand in the Sydney region, a position confirmed by the Joint Study on aviation capacity in the Sydney region (Department of Infrastructure and Transport 2012). In coming to this conclusion, the Joint Study provided a re-evaluation and broad consideration of a number of strategic alternatives to the development of a new airport, including:

- expanding Sydney Airport to meet increased demand;
- reviewing the policy settings and operational restrictions to optimise the use of Sydney Airport;
- optimising the use of other existing airports in the Sydney region;
- using high speed rail to reduce demand for aviation services; and
- developing other new airports.

While the Joint Study acknowledged that some of the options had potential to provide marginal capacity benefits, such as amending cap and curfew arrangements at Sydney Airport, they were considered short term solutions that would not address Sydney's long term aviation capacity requirements. Other proposals, such as expanding Sydney Airport or developing a high speed rail link to Canberra or Newcastle airports, were found to require significant capital investment and would not necessarily address the underlying key drivers of aviation demand growth such as demand for international services.

The Joint Study identified that a major new airport in the Sydney basin would be required before the end of 2030 and that that a greenfield airport in Western Sydney would be best placed to meet this growing demand.

29.2.3 Consequences of not proceeding

The consequences of not proceeding with the proposed airport would include:

- long term operational constraints at Sydney Airport would not be resolved and there would be increased congestion of existing facilities and reduced efficiency of aviation services in the Sydney region; and
- the regional economic benefits expected to be generated by the proposed airport, such as new employment, industry expansion and training opportunities would not be realised.

29.3 Environmental impacts

Potential environmental impacts associated with construction and operation of the Stage 1 development, as well as mitigation measures identified to reduce and manage these potential impacts, are documented in this volume of the EIS. Consideration of the operation of the long term development is provided in Volume 3. A summary of the potential key environmental impacts associated with the Stage 1 development is provided in Table 29–1.

Table 29–1 Summary of key environmental impacts for operation of the Stage 1 development

Issue	Key environmental issues
Noise – aircraft	<ul style="list-style-type: none"> • Maximum noise levels due to worst case loudest aircraft operations (such as Boeing 747) of over 85 dBA would be experienced at a small number of residential locations close to the airport site in the area of Badgerys Creek; and levels of 70 to 75 dBA within built-up areas in St Marys and Erskine Park. • Maximum noise levels due to more common aircraft types (such as Airbus A320 or equivalent) of over 70 dBA would be experienced in some areas to the south-west of the airport, notably the area of Luddenham and Greendale; and levels of 60 to 70 dBA in built-up areas around St Marys and Erskine Park. • Between 1,500 and 1,600 people would experience five or more aircraft noise events per day above 70 dBA over a 24-hour period. • An estimated 48,000 people would experience more than five events above 60 dBA at night under the 'Prefer 05' operating strategy (approach and depart the airport in a south-west to north-east direction). • Approximately 6,000 people would experience more than five events above 60 dBA at night under the 'Prefer 23' operating strategy (opposite direction to 'Prefer 05'). • Approximately 4,000 people would experience more than five events above 60 dBA at night under 'Head-to-Head' operations, if deemed feasible (both approach from and depart to the south-west). • Most recreational areas would not be subject to aircraft overflight noise events with maximum levels exceeding 70 dBA – or their exposure would be less than one event per day. • This EIS presents ANEC contours for Stage 1 operations. The combined ANEC 20 contour for Stage 1 operations is generally less extensive than that developed for the 1985 Draft EIS, which previously guided planning controls for surrounding councils.
Noise – ground operations, construction and road traffic	<ul style="list-style-type: none"> • Construction noise would be largely confined to within the airport boundary, although there would also be impacts on parts of Luddenham and Badgerys Creek outside of the airport site. • Ground-based operational noise would be generated by aircraft engine run-up and taxiing. • Noise above the criteria adopted for this EIS would be exceeded for aircraft engine run-ups in Luddenham, Badgerys Creek, Bringelly, Wallacia and Greendale under worst case meteorological conditions. • Noise impacts from taxiing would primarily affect Luddenham.
Air quality and greenhouse gasses	<ul style="list-style-type: none"> • Dust emissions would be generated during construction by both the bulk earthworks and the aviation infrastructure works. • Odour from the asphalt plant is also predicted to be below the relevant criteria at all sensitive residential receptors and would be largely contained within the airport site. Operation of the Stage 1 development would result in an increase in emissions of nitrogen dioxide (NO₂), particulate matter (as PM₁₀ and PM_{2.5}), carbon monoxide (CO), sulfur dioxide (SO₂) and air toxics. • There would be odour emissions from exhaust and from the on-site wastewater treatment plant. • Marginal ozone impacts would result from the operation of the Stage 1 development and greenhouse gas emissions are not expected to be material in terms of the regional air-shed.

Issue

Key environmental issues

Human health

Air Quality

- Levels of airborne particulates generated by construction would be low overall and less than those during operation. The highest risk is predicted to be associated with particulate matter, PM_{2.5}, during construction of aviation infrastructure which could result in a maximum of two additional deaths per 100 years. The most affected areas would be at Luddenham and Bringelly.
- Health risks due to PM₁₀ and PM_{2.5} particulate matter would be low for the Stage 1 development. The highest predicted risk attributed to PM₁₀ is for all-cause mortality from long-term exposures with between four additional deaths per 1,000 years and six additional deaths per 100 years. The highest predicted risk attributed to PM_{2.5} is for all-cause mortality and cardiopulmonary mortality from long-term exposures with between two additional deaths per 1,000 years and six additional deaths per 100 years.
- Exposure to nitrogen dioxide would be the highest risk category resulting from airport operation. The highest predicted risk is for long-term mortality in people over 30 years of age with a maximum predicted risk of 1.1 additional deaths per year for the Stage 1 development. When traffic emissions on the external road network are excluded (which accounts for some 69 per cent of the NO_x emissions inventory), the maximum risk would reduce to four additional deaths every 10 years.
- The health risk due to exposure to sulfur dioxide from the airport operations would be very low. The highest risk is for hospital admissions from respiratory causes with approximately between seven additional admissions per thousand years and seven additional admissions per hundred years.
- The health risk arising from exposure to carbon monoxide would be negligible. The highest risk is predicted for hospital admissions for cardiovascular disease in people 65 years of age and older with a maximum of an additional four additional hospital admissions in 1,000 years.
- The risk from exposure to benzene during airport operations would result in a very small increase in cancer risk which is within levels considered acceptable by national and international regulatory agencies.
- The risk from exposure to diesel particulates falls at the upper bound of the levels of risk considered acceptable by national and international regulatory agencies. The highest risk occurs at an onsite location, which is relevant for the consideration of exposure of onsite workers.
- The maximum risk increase resulting from exposure to ozone is 4.5 in 100,000 for emergency department attendances for asthma in children which is marginally above the levels of risk considered acceptable by national and international regulatory agencies.
- The EIS includes mitigation and management measures that will reduce the potential impacts considered in the health risk assessment. In particular, an operational air quality management plan which would reduce air emissions and the potential for ground level ozone formation.

Noise

- The results for the health risk assessment for noise shows that airport operations may lead to an increase in sleep disturbance (assessed as awakenings), increases in the risk of cardiovascular disease and delays in childhood learning and cognitive development. These effects are predicted for suburbs close to the airport site, in particular at Luddenham.
- The EIS noise assessment reports include mitigation and management measures that will reduce the potential impacts assessed by the health risk assessment. In particular, an operational noise management plan would be developed that considers both aircraft overflight and ground-based operations, including consideration of the requirements of AS 2021.

Water

- While there are potential risks to surface and groundwater resources from construction and operation of the airport site, most of these are common for other major infrastructure projects. Implementation of mitigation measures in the construction environmental management plans will minimise these risks.
 - It is considered unlikely that emergency fuel jettisoning would result in impacts to surface water bodies including potable water storages given the rarity of its occurrence and restrictions on where it can be undertaken.
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Issue

Key environmental issues

Hazard and risk

- With the completion of the necessary design studies for Civil Aviation Safety Authority aerodrome certification, as well as implementation of the requirements of the existing regulatory framework, no insurmountable risks associated with the Stage 1 development would be likely.
- Key issues that would be finalised prior to the operation of the airport include:
 - resolution of off-site risks associated with jet fuel storage;
 - reservation of a pipeline corridor to secure future fuel supply by means other than road transport in conjunction with NSW Department of Planning and Environment;
 - additional bird and bat surveys to confirm the preliminary risk identified;
 - completion of a study to identify stack emissions in the proposed airspace; and
 - implementation of development controls on public safety zones outside Commonwealth land.
- Prior to operations commencing at the airport, a safety review would need to be undertaken in accordance with the requirements of the applicable work, health and safety legislation.

Traffic, transport and access

- An estimated 1,254 additional vehicle movements per day would occur on the surrounding road network during construction. This includes approximately 150-160 peak vehicle movements per hour during the peak periods.
- During Stage 1 operations approximately 21,562 vehicles are predicted to enter the airport site and approximately 21,556 vehicles leave the airport site each day.
- Given the significant expansion of road capacity underway as a result of Western Sydney Infrastructure Plan, this additional traffic is unlikely to affect the operation of the surrounding road network significantly but is expected to result in an increase in congestion:
 - on the M7 southbound, south of the M4;
 - on Elizabeth Drive, east and west of the M7; and
 - at The Northern Road, north of Elizabeth Drive.
- A small increase in congestion is also predicted on Mamre Road.

Biodiversity

- The Stage 1 development would require the removal of approximately 1,153.8 hectares of vegetation during construction, including approximately 318.5 hectares of native vegetation.
 - Removal of vegetation would result in the loss of fauna foraging, breeding, roosting, sheltering and/or dispersal habitat.
 - Threatened species, populations and ecological communities listed under both the EPBC Act and the TSC Act would be affected by the Stage 1 development.
 - There is an associated risk of fauna strike from contact with aircraft and ground transportation vehicles both on and surrounding the airport site.
 - Indirect impacts would be associated with light, noise and vibration and the introduction of exotic species.
 - An offset package has been prepared to compensate for the removal of approximately 104.9 hectares of Cumberland Plain Woodland, the removal of about 141.8 hectares of foraging habitat for the Grey-headed Flying-fox, and impacts on other features of the natural environment including plant populations, fauna populations and several species and communities listed under NSW legislation.
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Issue

Key environmental issues

Topography, geology and soils

- The topography of the site would change as a result of a major bulk earthworks programme involving the redistribution of about 22 million cubic metres of soil and rock across a construction impact zone covering approximately 1,150 hectares.
- Storage, treatment and handling of fuel, sewage and other chemicals with potential to contaminate land required for construction and operation.
- Potential contaminated land associated with prior activities at the airport site including agriculture, light commercial and building demolition.
- Potential impacts during operation are typical of a large scale infrastructure project and would be managed with the implementation of stormwater, erosion and dust controls and adherence to industry standards for the storage and handling of chemicals.

Surface water and groundwater

- Changes to catchment areas within the airport site and the permeability of the ground surface, would alter the duration, volume and velocity of surface water flow.
- Bulk earthworks and excavations at the airport site would likely to receive some groundwater inflows.
- An estimated 1.36 ML of water would be required per day for site preparation works. Water would be sourced from existing assets operated by Sydney Water and through stormwater runoff captured in sediment dams or existing farm dams.
- An estimated 2.7 ML wastewater generated during operation would be treated and recycled (as grey water) or irrigated on site.

Aboriginal heritage

- Construction would affect at least 39 sites recorded at the airport site, all of which comprise artefact occurrences.
- Construction activities would also impact approximately 514 hectares of archaeologically sensitive landforms.
- Impacts during operation would be limited to indirect impacts on adjacent and nearby sites. The heritage values of these sites are unlikely to be vulnerable to indirect impacts such as loss of context.

European heritage

- The assessment of European heritage identified 20 European heritage items at the airport site and an additional 22 heritage items in the surrounding area. All of the identified European heritage items at the airport site would be directly affected by site preparation prior to Main Construction Works for the proposed Stage 1 development.

Planning and land use

- The proposed airport would result in the removal of existing rural residential, agricultural, recreational, community and extractive industry land uses on the airport site.
 - Surrounding land uses would be expected to transition from rural to urban land uses both as a result of airport operations, and as the Western Sydney Priority Growth Area, Western Sydney Employment Area and other strategic planning initiatives take effect. Infrastructure improvements to main roads and railways would also facilitate land use change in the region.
 - The successful implementation of measures to manage land use and planning impacts, including mitigation measures for employment land use conflict, zoning rationalisation, operational airspace controls, aircraft noise and infrastructure corridor protection, the proposed airport and its surrounds would become a focus for employment generating land uses in Western Sydney, creating jobs for the new residents of Greater Western Sydney.
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Issue

Key environmental issues

Landscape and visual amenity	<ul style="list-style-type: none">• The proposed airport would result in temporary visual impacts during construction for the nearest sensitive receivers in Luddenham and Bringelly due to earthworks and the presence of construction plant, equipment, stockpiling areas and storage areas.• Potential moderate to high visual impacts during operation would result from overflights in Luddenham, Elizabeth Drive, Lawson Road and Mount Vernon.• Lower level impacts as a result of overflights would be likely for areas to the south of the airport site including Silverdale Road, Bents Basin State Conservation Area and Dwyer Road.• Operational lighting would likely have low impacts on sensitive receivers due to topography, existing vegetation, building design, lighting design and runway configuration.
Social	<ul style="list-style-type: none">• The proposed airport would increase employment and population growth for Western Sydney, and Greater Sydney more broadly.• Significant benefits to the people and economy of Western Sydney would be related to economic development and employment opportunities.• Creation of jobs for many types of workers of various skills and qualifications, which would contribute to increased incomes across the Western Sydney region.• Stimulation of further development in regional and local centres, providing better quality social infrastructure, such as shops, health services, recreation and leisure services.• Development of training opportunities in the region undertaken by the state government and local governments will encourage innovation to create new small and large businesses supporting the proposed airport.• Varying amenity and lifestyle impacts in the Western Sydney region depending on proximity to the airport, and location with respect to flight paths.
Economic	<ul style="list-style-type: none">• Construction of the Stage 1 development is forecast to create approximately 3,180 full-time equivalent (FTE) jobs directly and indirectly in Greater Sydney during the peak of construction activity. Approximately 84 per cent of these jobs would be created in Western Sydney, including about 760 FTE direct onsite jobs. Construction of the Stage 1 development is also expected to create \$2.3 billion in value-add across Greater Sydney during the construction period, with approximately \$1.9 billion or 83 per cent of that value-add being created in Western Sydney.• Operation of the Stage 1 development would create about 8,730 FTE direct onsite jobs and generate about \$77 million in value-add for Western Sydney in 2031.
Resources and waste	<ul style="list-style-type: none">• An estimated 202,500 tonnes of waste vegetation and construction materials such as concrete and timber would be generated during construction of the Stage 1 development.• An estimated 5,251 tonnes of waste would be generated each year during operation of the Stage 1 development, including general waste, food, packaging waste from terminals and waste oils, paints and cleaners from maintenance activities.

Issue

Key environmental issues

Greater Blue Mountains World Heritage Area	<ul style="list-style-type: none">• Indirect operational impacts would be expected in relation to noise, air emissions and visual impact from the overflight of aircraft.• aircraft passing over locations within the GBMWA are generally expected to be at an altitude greater than 5,000 feet and most would be more than 10,000 feet above sea level. At these altitudes, aircraft are likely to be difficult to discern from ground level and are not considered to be visually intrusive.• Indicative flight paths at altitudes of less than 5,000 feet above sea level are limited to the eastern boundary of the Blue Mountains National Park, which would experience 50 to 100 flights per day in for Stage 1 operations.• Generally, across the GBMWA, aircraft maximum noise levels are not expected to exceed 55 dBA. Echo Point at Katoomba would not experience maximum noise levels above 50 dBA, and the majority of other selected sensitive areas are predicted to only be affected by aircraft noise levels above 55 dBA during the infrequent operation of the Boeing 747.
Cumulative impacts	<ul style="list-style-type: none">• Potential cumulative impacts with other major projects in the region requiring coordination with NSW Government agencies include:<ul style="list-style-type: none">▪ Western Sydney Infrastructure Plan;▪ Western Sydney Priority Growth Area;▪ Western Sydney Employment Area;▪ South West Priority Growth Area; and▪ other major projects identified in the region.• Minimal potential for cumulative noise impacts upon sensitive receivers as a result of the distance from other major projects, with the relocation of The Northern Road and construction of the M12 motorway having highest potential for cumulative noise impacts.• Predicted air quality impacts (emissions) would typically be below the respective air quality assessment criteria during construction and operation for both incremental impacts of the airport alone and when considered cumulatively with other surrounding land use and development.• Additional vehicle movements associated with construction and operation are not likely to significantly affect the operation of the surrounding road network.

29.3.1 Mitigation and management measures

Mitigation and management measures would be implemented during both construction and operation to reduce the level of potential environmental impacts. These measures aim to protect the identified environmental values and would be applied as required during the planning and design, construction and operation phases of the Stage 1 development.

The effectiveness of the proposed mitigation and management measures will be ensured through:

- clear statements of the intended outcomes and performance criteria for each plan;
- the requirement for approval of environmental management plans by the Infrastructure Minister or an SES Officer in the Department of Infrastructure and Regional Development other than the Biodiversity Offset Delivery Plan which will be approved by the Environment Minister or an SES Officer in the Department of the Environment and Energy;
- inclusion of best-practice measures, including the adoption of continuous improvement mechanisms during the detailed design, construction and operation of the proposed airport;

- ongoing monitoring of, and compliance with, environmental management plans through a review, reporting and auditing framework approved by the Infrastructure Minister;
- environmental management requirements of the Airports Act, including the regulation of land use through ongoing master planning and environmental strategy requirements, as well as a system to regulate, and assign accountability for, activities at the airport site that generate or have the potential to generate pollution or excessive noise;
- the sustainability framework which will establish a benchmark for the sustainable performance of the Stage 1 development; and
- ongoing stakeholder consultation and oversight through relevant community forums as required by the Australian Government at major airports in Australia.

Taken together, these mechanisms will ensure that mitigation and management measures proposed in this EMF are effective and achieve the intended outcomes.

29.4 Considerations of the objects of the EPBC Act

Section 3 of the EPBC Act identifies the following objects:

- b. to provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance;*
- c. to promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources;*
- d. to promote the conservation of biodiversity;*
- e. to promote a cooperative approach to the protection and management of the environment involving governments, the community, landholders and indigenous peoples; and*
- f. to promote the use of indigenous peoples' knowledge of biodiversity with the involvement of, and in cooperation with, the owners of the knowledge.*

The environmental assessment of the proposed airport development has been conducted having regard to the objectives of the EPBC Act.

This EIS assesses the likely impacts of the proposal and provides mitigation measures for protection of the environment. The EIS specifically assesses potential impacts on, matters of national environmental significance, including listed species and ecological communities and the Greater Blue Mountains World Heritage Area, and National Heritage Place. It also considers the impacts on the general environment from construction and operation of the proposed development.

A biodiversity offset is proposed to allow for the conservation of regional biodiversity values in perpetuity.

The environmental impact assessment of the proposed airport has involved extensive consultation with key stakeholders in a cooperative approach to project development. Consultation with key stakeholders and the community will continue following the finalisation of the EIS alongside a revised draft Airport Plan, during construction and following commencement of operations at the proposed airport.

The principles of ecologically sustainable development were adopted during the preparation of this EIS. An assessment of the proposal against these principles follows below.

29.5 Consideration of the principles of ecologically sustainable development

Section 3A of the EPBC Act adopts the following principles of ecologically sustainable development:

- a. *decision making processes should effectively integrate both long term and short term economic, environmental, social and equitable considerations;*
- b. *if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;*
- c. *the principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;*
- d. *the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision making; and*
- e. *improved valuation, pricing and incentive mechanisms should be promoted.*

An assessment of the proposal against these principles is provided below.

29.5.1 Consideration of long term and short term

The proposed airport would be consistent with the objective of effectively integrating both long term and short term economic, environmental, social and equitable considerations in decision making.

This EIS has considered the environmental impacts and issues of the construction and operation associated with Stage 1 development. While the long term airport development described in the EIS would not be authorised by the Airport Plan, a strategic land assessment of the potential implication has been undertaken to support considerations of the Stage 1 development and long term planning and land use strategies. The proposed airport would provide both short and long term benefits in terms of job creation and provision of accessibility to aviation services. The airport would also address the long term aviation capacity requirements of the Sydney region.

29.5.2 Precautionary principle

The precautionary principle states that if there are threats of serious environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In applying the principle, decisions should be guided by careful evaluation to avoid, wherever practicable, serious damage to the environment, including an assessment of the risks associated with various options. The proposed airport would be consistent with the precautionary principle.

Potential environmental impacts associated with the proposed airport have been assessed and documented in this EIS to minimise the likelihood of serious damage to the environment, with necessary mitigation measures proposed as required. Conservative approaches in line with the precautionary principle, including contingencies in assumptions such that assessed impacts were likely to be worse than would actually occur, were applied in a number of environmental assessments.

This EIS implemented a compliance, risk, and/or significance-based approach to impact assessment (see Chapter 9 (Volume 2a)). Higher risk aspects were managed through avoidance or suitable mitigation strategies to an acceptable level of residual risk.

The project would adopt 'leading practice' environmental and community management and monitoring plans to manage, mitigate and monitor impacts identified in this EIS. These plans aim to ensure that impacts are within the range predicted in this EIS, and to ensure corrective action is taken if unpredicted impacts are identified.

29.5.3 Intergenerational equity

The principle of intergenerational equity states that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations. The proposed airport would be consistent with the principle of intergenerational equity.

Given the alternatives considered (see Chapter 2 (Volume 1)) and the proposed environmental management framework (see Chapter 28), the proposed airport would operate to ensure there would be no significant impact that would diminish the health, diversity or productivity of the environment for future generations.

The incremental nature of the long term development of the airport would provide opportunities for intergenerational equity and decision making that takes full advantage of changing conditions and technologies. The proposed airport would also provide a broad range of economic benefits which would continue to increase with time.

29.5.4 Conservation of biodiversity and ecological integrity

The conservation of biological diversity and ecological integrity should be a fundamental consideration of any development proposal. The proposed airport would be consistent with this principle.

Where feasible, the project would minimise impacts on sensitive ecological areas and minimise clearing of significant patches of native vegetation more generally. An offset package has been prepared to compensate for the removal of approximately 104.9 hectares of Cumberland Plain Woodland, the removal of about 141.8 hectares of foraging habitat for the Grey-headed Flying-fox, and impacts on other features of the natural environment.

29.5.5 Valuation, pricing and incentives

The principle of improved valuation states that environmental factors should be considered in the valuation of assets and services. The principle is implicit in such concepts as 'polluter pays', lifecycle costing, and triple bottom line accounting.



The proposed airport would be consistent with this principle as environmental factors were integrated into the environmental impact assessment and cost benefit analysis, including environmental externalities such as traffic congestion and air quality impacts; and the opportunity costs of other uses of the airport site.

29.6 Summary

On 15 April 2014 the Australian Government announced that the Commonwealth-owned land at Badgerys Creek would be the site for the proposed airport. The proposed airport would cater for ongoing growth in demand for air travel, servicing both domestic and international markets.

A revised draft Airport Plan has been prepared in accordance with the Airports Act, setting out the Australian Government's requirements for the Stage 1 development. The Stage 1 development would include a single 3,700 metre runway on a north-east/south-west orientation and aviation support facilities to provide an operational capacity of approximately 10 million annual passengers, as well as freight traffic. The Stage 1 development is designed to cater for the predicted demand for five years following commencement of operations, expected to occur around the mid-2020s and forms the basis for the consideration of potential impacts.

This EIS has been prepared in accordance with Part 3 of the EPBC Act and the Department of the Environment guidelines for the assessment of the airport proposal (EPBC 2014/7391).

Based on the findings of the environmental investigations undertaken to inform this EIS, the proposed airport would result in some adverse impacts on the environment and the community. Mitigation and management measures have been proposed to reduce these potential impacts and protect the identified environmental values and would be applied as required during the planning and design, construction and operation of the proposed airport.