

A8

BACKGROUND TO THE PROJECT

SUSTAINABILITY



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8.1 INTRODUCTION

The Terms of Reference for the Environmental Impact Statement (EIS) released by the Coordinator General in May 2012 in relation to sustainability requested an assessment to take place against the objectives of the *National Strategy for Ecologically Sustainable Development*. This chapter reviews those objectives and their applicability to the Sunshine Coast Airport (SCA) Expansion Project (the Project).

In addition and for context, a short summary is provided in relation to the relevant drivers for sustainability on the Project from the Queensland State Government and Sunshine Coast Council (SCC).

8.2 SUSTAINABILITY AND QUEENSLAND

In 1994, the *Environmental Protection Act* (EP Act) was introduced to protect Queensland's environment while allowing for development that improves the total quality of life, now and in the future, in a way that maintains ecological processes on which life depends. The EP Act is underpinned by the concept of ESD and aims to address specific aspects of the environment including air, noise, water and waste that are covered in separate environmental protection policies¹. The Queensland Government has also included the concept of ESD in other introduced legislation such as the *Nature Conservation Act 1992* and the *Coastal Protection and Management Act 1995*. The legislation above is relevant to the Project as described in Chapter A6 – Planning and Legislation and as covered in various chapters in Volume B.

¹ See http://www.epa.qld.gov.au/about_the_epa/legislation/environmental_protection

8.3 SUSTAINABILITY AND THE SUNSHINE COAST

SCC's recently adopted Corporate Plan 2014 – 2019 provides a blueprint for the region outlining emerging priorities and key strategies to help SCC achieve its vision of becoming Australia's most sustainable region – vibrant, green, diverse.

The plan acknowledges the challenges of population growth and securing its financial future while protecting the lifestyle and natural environment prized by the region. The plan acknowledges the need to strive for the best possible outcomes for the region now and into the future.

To support delivery of its vision, SCC has identified five (5) supporting goals to structure its priorities:

- A new economy
- A strong community
- An enviable lifestyle and environment
- Service excellence
- A public sector leader.

SCC'S desire to be a leader in terms of delivery of a sustainable region and ethos surrounding sustainability has led to many of the approaches taken on the Project and are described in **Table 8.5a**.

8.4 NATIONAL STRATEGY FOR ECOLOGICALLY SUSTAINABLE DEVELOPMENT

The National Strategy for Ecologically Sustainable Development (NSED) was first drafted in 1990. Several reviews followed and in 1992 the Council of Australian Governments passed the NSED.

The goal of the NSED is development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.

The core objectives of the NSED are:

- To enhance individual and community wellbeing and welfare by following a path of economic development that safeguards the welfare of future generations
- To provide for equity within and between generations
- To protect biological diversity and maintain essential ecological processes and life-support systems.

The Guiding Principles of the NSED are:

- Decision making processes should effectively integrate both long and short term economic, environmental, social and equity considerations
- Where 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

- The global dimension of environmental impacts of actions and policies should be recognised and considered
- The need to develop a strong, growing and diversified economy which can enhance the capacity for environmental protection should be recognised
- The need to maintain and enhance international competitiveness in an environmentally sound manner should be recognised
- Cost effective and flexible policy instruments should be adopted, such as improved valuation, pricing and incentive mechanisms
- Decisions and actions should provide for broad community involvement on issues which affect them.

8.4.1 Approach to considering the NSED

As identified, the NSED will be used as the assessment framework. The strategy breaks down issues into sectoral and inter-sectoral. Falling under these two headings are the issues of:

- Biological Diversity
- Nature Conversation
- Native Vegetation
- Agriculture
- Fisheries Ecosystem Management
- Forest Resource use and Management

For each of the above issues there is a minimum of one objective the issue seeks to achieve.

Given that the intent of the setting of these issues was to set a national guiding framework for ESD in Australia, it is not appropriate to assess this Project against them.

For instance, an issue under 'Inter-sectoral' is Environmental Protection. The objective is *"to establish, across the nation, measures for the protection of the environment which are consistent with the guiding principles of ESD, including measures which adopt a preventative approach to pollution and waste generation"*.

Given the scale and focus of this and most of the other objectives is national, it is not considered appropriate to assess a project such as the new runway against these objectives. However for completeness, **Table 8.4a** lists all of the NSED objectives and identifies whether or not they are relevant to the Project and the reasoning behind that decision.

8.4.2 Applicability of NSED Inter-Sectoral Objectives to the Project

Table 8.4a identifies which NSED objectives are applicable to the Project and have been addressed. Where an objective has not been addressed, reasoning is provided in the table.

Table 8.4a: Applicability of NSESD Intersectoral Objectives

NSESD Objective	Applicability	Rationale
Agriculture		
To create a framework of integrated government policies and programs in which promote community-based self-reliant approaches to agricultural resource management.	Not applicable	
To promote integrated planning of agricultural resource management, in particular in areas affected by land degradation, and extend measures, particularly community based self-help approaches, which encourage information transfer and landholder adoption of sustainable management.	Not applicable	Agriculture objectives have not been addressed, they are outside of the scope of the Project.
To reduce and manage effectively the impacts of pest plant and animal species on Australia's agricultural areas.	Not applicable	
To improve kangaroo management at the national level, including the removal of impediments to a sustainable commercial kangaroo industry.	Not applicable	
To improve effective and safe management of agricultural and veterinary chemicals while improving levels of, and access to information on these chemicals	Not applicable	
Fisheries Ecosystem Management		
To ensure that fisheries management agencies work within a framework of resource stewardship	Not applicable	Fisheries Ecosystem Management objectives have not been addressed they are outside of scope of the Project.
To develop national guidelines for state of the aquatic environment reporting	Not applicable	
To disseminate information on the principles of ESD to fishers and the wider community	Not applicable	
Forest Resource Use & Management		
To manage and utilise Australia's forest estate for all forest values on an ecologically sustainable basis	Not applicable	
To maintain ecological processes within the forests, maintain biodiversity, and optimise benefits to the community from all uses, within ecological constraints	Not applicable	This specific objective has not been addressed, they are outside of the scope of the Project.
To enhance the quality of life for successive generations of Australians by protecting and enhancing all of the values available from Australia's forests, and development of an ecologically sustainable and internationally competitive forest products industry	Not applicable	
Manufacturing		
To encourage the manufacturing sector to move towards achieving sustainability in its operations by embedding ESD principles in day-to-day operations; adopting best practice environmental management and whole-life-cycle analysis	Not applicable	Manufacturing objectives have not been addressed, they are outside of the scope of the Project.

To provide the domestic market opportunities necessary for the development of new Australian environmental products and services; and provide information, education and the capacity to seek verification of environmental claims in marketing	Not applicable
To ensure relevant government product approvals are based on ESD principles, and develop an effective and sustainable national approach to chemicals management in Australia	Not applicable
Mining	
To ensure mine sites are rehabilitated to sound environmental and safety standards, and to a level at least consistent with the condition of surrounding land	Not applicable
To provide appropriate community returns for using mineral resources and achieve better environmental protection and management in the mining sector	Not applicable
To improve community consultation and information, improve performance in occupational health and safety and achieve social equity objectives	Not applicable
Urban & Transport Planning	
To promote urban forms which minimise transport requirements, and improve the efficiency of land supply and infrastructure provision	Not applicable
To encourage the future development of urban transport systems which provide opportunities to limit the use of fossil fuels	Not applicable
To promote subdivision and road design patterns that provide the greatest potential to utilise energy efficiency dwelling design, with provision for and use of public transport modes	Not applicable
To improve the amenity of local urban areas	Not applicable
Mining objectives have not been addressed, they are outside of the scope of the Project.	This objective is outside of the scope of the Project and has not been addressed.
Air travel is not considered an urban transport system and as such this objective is not applicable. However, it is noted that the airport is a key transport hub on the Sunshine Coast to which connections with urban transport system (bus, rail etc.) are currently being investigated. The Project would not preclude any future provision of public transport that may service the airport and provide opportunities to limit the use of fossil fuels.	Promoting subdivision and road design is outside of the scope of the Project.
The objective of the Project seeks to improve the overall amenity of surrounding areas in terms of improving the overall community noise burden from aircraft noise, however it is not within the scope of the Project to improve the amenity of local urban areas more broadly.	

NSES Objective	Applicability	Rationale
<p>Tourism</p> <p>To ensure tourism strategies developed at all levels of government are based on ESD principles and provide effective mechanisms for industry and community input.</p> <p>To examine the most appropriate use of regulatory measures to ensure tourism development is ecologically sustainable.</p> <p>To encourage environmentally appropriate tourist behaviour through the production and adoption of codes of environmental behaviour and practice and to improve tourist awareness of ESD principles.</p> <p>To develop a greater understanding of the economic and environmental impacts of tourism developments, including monitoring of tourism trends, such as eco- tourism.</p>	<p>Not applicable</p> <p>Not applicable</p> <p>Not applicable</p> <p>Not applicable</p>	<p>The scope of the EIS does not include the development of tourism strategies. It is not the purpose of the Project to ensure tourism development is ecologically sustainable nor to encourage appropriate tourist behaviour in the context of the NSES objective. This has not been addressed.</p> <p>The scope of the EIS is not to develop increased understandings of economic and environmental impacts of tourism development. This has not been addressed.</p>
<p>Energy Use, Energy Production and Transport</p> <p>To limit harmful emissions arising from energy production and distribution wherever economically efficient, and to promote alternative energy sources</p> <p>To improve the energy efficiency of residential buildings and domestic appliances; and to influence householders to become more economical in their use of energy, and to switch to energy sources with lower greenhouse gas emissions</p> <p>To influence industries and businesses to adopt behaviour, practices, technology and equipment that make them minimise their energy use; or lead them to switch to energy sources with lower greenhouse gas emissions</p> <p>To improve the technical and economic efficiency of urban and non-urban transportation; encourage switching to alternative transport technologies or modes where this reduces greenhouse gas emissions per passenger or unit of freight and to optimise the modal mix of transport to achieve greater economic, environmental and social benefits</p>	<p>Not applicable</p> <p>Not applicable</p> <p>Not applicable</p> <p>Not applicable</p> <p>Applicable</p>	<p>The purpose of the Project is to construct and operate a new runway, not energy generation, and therefore this objective is not applicable.</p> <p>This objective is not within the scope of the Project and has not been assessed.</p> <p>This is outside the scope of the Project and has not been addressed.</p> <p>The EIS addresses this objective in part. Regarding GHG emissions per capita, the EIS is helping to achieve this part of the objective as the capacity of the airport will be increased allowing larger planes to land more frequently reducing over time, the GHG emissions per passenger and unit of freight.</p> <p>Economic and social benefits of the airport runway development have been analysed in the economic assessment in Chapter A2 – Need for the Project. The Benefit Cost Analysis (BCA) quantified the benefits of savings from avoided pollution with the Project (estimated at \$63 million). This results from the avoided journeys to Brisbane Airport to make flights.</p>

Biological Diversity		
To develop effective mechanisms for minimising human, pest plant and animal impacts on ecological systems, expand habitats for native species of plants and animals, while maintaining a diverse and healthy economy	Not applicable	This objective is set at a national scale and as such is outside of the scope of the Project.
Nature Conservation System		
To establish across the nation a comprehensive system of protected areas which includes representative samples of all major ecosystems, both terrestrial and marine; manage the overall impacts of human use on protected areas; and restore habitats and ameliorate existing impacts such that nature conservation values are maintained and enhanced	Not applicable	This objective is set at a national scale and as such is outside of the scope of the Project.
Native Vegetation		
To foster a conservation ethic, while ensuring effective measures are in place for the conservation and management of native vegetation	Not applicable	These objectives are set at a national scale and as such is outside of the scope of the Project.
To improve the quality of technical advice about conservation of vegetation and revegetation	Not applicable	
Environmental Protection		
To establish, across the nation, measures for the protection of the environment which are consistent with the guiding principles of ESD, including measures which adopt a preventative approach to pollution and waste generation	Not applicable	This objective is set at a national scale and outside of the scope of the Project.
Land Use Planning and Decision Making		
To encourage environmental and economic land use decision making which takes full account of all relevant land and resource values and to establish and operate systems of land use decision making and dispute resolution	Not applicable	This objective is set at a national scale and outside of the scope of the Project.
To achieve clarity, certainty and accountability in the processes used to clarify access to land and to determine change of use	Not applicable	This objective is set at a national scale and outside of the scope of the Project.
Natural Resource and Environment Information		
To establish a decision-making framework for the development, enhancement and management of natural resource data systems	Not applicable	The scope of the EIS does not address natural resource data systems and their management. This objective has not been addressed.
To enhance the quality, accessibility and relevance of ESD-related data	Not applicable	

NSESD Objective	Applicability	Rationale
<p>Environmental Impact Assessment</p> <p>To ensure the guiding principles of ESD are incorporated into environmental impact assessment, with emphasis on clarity of application and process, community access and post-approval accountability; and to increase the level of consistency and certainty and avoid unnecessary duplication of the EIA process across the nation</p>	<p>Applicable</p>	<p>Whilst this objective is proposed to encourage government agencies to address these matters. The Project in Chapter A7 – Stakeholder Engagement outlines all of the community engagement undertaken to date on the Project and the details of the proposed public notification period (of 30 business days) where members of the public can comment on the Draft EIS.</p> <p>In reference to post approval accountability, if the EIS is approved it would most likely to be approved with conditions. These conditions can be managed in two ways. Firstly, the CoG may direct an administering authority (DEHP, DAFF etc.) to have jurisdiction over the condition and to monitor as necessary. Or the CoG's internal compliance unit may monitor the condition.</p>
<p>To increase the sensitivity of the EIA process, its planning and policy context and consequent decision making, to cumulative and regional impacts</p>	<p>Applicable</p>	<p>Cumulative impacts are required to be addressed as part of the Project and are reported in Chapter E7 of the EIS.</p>
<p>Changes to Government Institutions and Machinery</p>		
<p>To ensure Cabinet processes facilitate the integration of economic, environmental and social considerations into decision making</p>	<p>Not applicable</p>	
<p>To incorporate ESD principles as a fundamental objective of relevant government authorities involved in economic, environmental and social decision making</p>	<p>Not applicable</p>	<p>Changes to Government Institutions and Machinery objectives are outside of the scope of this Project and as such this has not been addressed.</p>
<p>To improve the efficiency and effectiveness of the development, implementation and integration of ESD-related policies, clearly define the roles and responsibilities of each level of government, avoid duplication of functions and establish effective processes for cooperation between governments</p>	<p>Not applicable</p>	
<p>To improve the level of consideration given to ESD principles in government purchasing policies and practices</p>	<p>Not applicable</p>	
<p>Coastal Zone Management</p>		
<p>To develop coastal policies, consistent with ESD principles within each jurisdiction</p>	<p>Not applicable</p>	<p>This objective is national in scale and remit and is not relevant to the Project.</p>

Water Resource Management	
To develop water management policies which are based on an integrated approach to the development and management of water resources	Not applicable These objectives on Water Resource Management are not relevant to the Project.
To develop and implement the most effective mix of water resource management mechanisms	Not applicable
Waste Minimisation and Management	
To improve the efficiency of resource use and reduce the impact on the environment of waste disposal	Not applicable These objectives on Waste Minimisation and Management are not relevant to the Project.
To avoid the generation of hazardous wastes, improve management of those wastes which are generated and improve mechanisms for their clean up	Not applicable
Pricing and Taxation	
To develop, improve and enhance the effective use of pricing and economic instruments as a means for achieving better management of our natural resources	Not applicable These matters are outside the scope of the Project and have not been addressed.
To ensure that adequate attention is given to social and environmental costs when assessing the use of pricing, taxation and other economic instruments	Not applicable
Industry, Trade and Environment Policy	
To continue development of Australia's industrial sector, pursue opportunities to achieve greater diversity in our economic and industrial structure, while ensuring that environmental objectives are not compromised	Not applicable These matters are outside the scope of the Project and have not been addressed.
To seek a high degree of integration of trade and environment policies	Not applicable
Aboriginal and Torres Strait Islander Peoples	
To ensure effective mechanisms are put in place to represent ATSI land, heritage, economic and cultural development concerns in resource allocation processes	Not applicable The purpose of this objective is national in scale and intent and is outside of the scope of this Project.
Gender Issues	
To educate decision makers, program managers and the community of women's contributions to ESD	Not applicable These matters are outside the scope of the Project and have not been addressed.
To assess the gender implications of ESD-related initiatives in all sectors of the economy	Not applicable
Public Health	
To develop effective options for predicting, preventing, controlling and communicating the health implications of ESD-related decisions	Not applicable This objective is national in scale and is outside the scope of this Project

NSESD Objective	Applicability	Rationale
Occupational Health & Safety		
To put in place an effective policy framework for the development, enhancement and management of OHS components of ESD-related decisions and actions		This objective is national in scale and is outside the scope of this Project
Education and Training		
To incorporate ESD principles and approaches into the curriculum, assessment and teaching programs of schools and higher education	Not applicable	These objectives are of a national scale and outside the scope of this Project.
To develop and improve vocational education and training programs which incorporate ESD principles and which will give practical skills in achieving ESD	Not applicable	
Employment and Adjustment		
To assess and monitor the equity implications of proposed ESD actions, including impacts on employment and structural adjustment, and ensure they are taken into account in reaching decisions on implementation	Applicable	These matters are outside the scope of the Project and have not been addressed.
Australia's Overseas Aid Policy		
To integrate ecologically sustainable development in all aspects of Australia's official development assistance program	Not applicable	These matters are outside the scope of the Project and have not been addressed.
Population Issues		
To establish the most effective mechanism for ensuring that population policies are developed in an integrated way	Not applicable	These matters are outside the scope of the Project and have not been addressed.
Research, Development and Demonstration		
To incorporate consideration of ESD objectives into RD & D planning and priority setting	Not applicable	
To establish effective communication channels between RD & D advisers, funders, performers and users concerning ESD-related RD & D activities	Not applicable	
To encourage existing public sector funders and performers to cooperate in the type of multi-disciplinary inter-institutional RD & D needed to address intersectoral ESD issues	Not applicable	These objectives are outside the scope of the Project and have not been addressed.
To improve the consistency and comparability of environmental data	Not applicable	
To address broader intersectoral ESD issues through RD& D	Not applicable	
To address sectoral ESD issues through RD & D	Not applicable	
Conflict Management		
To reduce the occasions for conflict to arise in relation to ESD-related decisions, actions and initiatives.	Not applicable	These objectives are outside of the scope the Project and have not been addressed.
To reduce and, where possible, resolve community conflicts over environmental resources.	Not applicable	

Community Awareness, Education and Participation

To develop a high level of community awareness and understanding of the goal, objectives and principles of this ESD Strategy	Not applicable	This objective is intended to relate to the broader Australian community in relation to engagement around ESD and the NSESD. Whilst the Project will inform the community of the environmental, social and economic implications of the Project meeting this objective is outside of the scope of the Project.
To promote open and effective communication on ESD issues and policies between governments, industry, conservation groups, unions and community groups	Not applicable	
To ensure timely and informed contributions from stakeholders to the implementation of initiatives outlined in this Strategy and in its further development; monitoring and review	Not applicable	

Monitoring and Review of the Strategy

To monitor and review the implementation and effectiveness of actions contained in this Strategy at the program, sectoral and national levels	Not applicable	Monitoring and review of the NSESD strategy is not within the scope of works of the EIS and not addressed.
To develop appropriate performance measures for the actions and initiatives outlined in this Strategy, and as a means of indicating overall progress towards ESD	Not applicable	

8.5 ESD IN THE EPBC ACT

The EIS is being prepared (in part) in under the *Commonwealth Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act). Part 1, Section 3(A) of the EPBC Act outlines that the principles of ecologically sustainable development are as follows:

- a) 8.5.1.1 Decision making processes should effectively integrate both long term and short term economic, environmental, social and equitable considerations
- b) 8.5.1.2 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) 8.5.1.3 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) 8.5.1.4 The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision making
- e) 8.5.1.5 Improved valuation, pricing and incentive mechanisms should be promoted.

Many of the above principles were derived from the core objectives/guiding principles from the NSESD and as such are perhaps more applicable to be considered against in relation to an assessment of sustainability for the Project than the inter-sectoral objectives of the NSESD.

Table 8.5a compares the EPBC Act ESD principles and the NSESD objectives relevant to the Project and where they are coincident, for example, e) in the above list, relating to the promotion of improved valuation, pricing and incentive mechanisms, cannot directly be applied to the EIS.

Table 8.5a: Assessment against relevant EPBC Act ESD Principles and NSESD Core Objectives and Guiding Principles

Ref.	EPBC Act ESD Principles Relevant to the Project	NSESD Core Objectives & Guiding Principles Relevant to the Project	Consideration of how the Project Addresses the Principles and Objectives
1.	Decision making processes should effectively integrate both long and short-term economic, environmental, social and equity considerations	Decision making processes should effectively integrate both long and short term economic, environmental, social and equity considerations	<p>The assessment period for the Project is to 2040. The assessment method adopted in the EIS (see Chapter A9) requires a risk based approach that considers the short, medium and long term impacts of the Project. This approach applies to Matters of National Environmental Significance (Chapter E2), the potential impacts of the change to airspace (Volume D) and all other aspects of the Project (Volumes B and C).</p> <p>Historically an EIS has always been a document about sustainability as it is required to consider the social, environmental and economic implications of a project. For this Project, key chapters in this regard are social (B13, C6 and D5), economics (A2) and environment (in various chapters in Volumes B, C and D).</p> <p>The Project has been designed with potential long term climate change impacts taken into consideration. The runway is designed to have immunity for a 2100 scenario 100 year ARI flood event.</p>
2.	Where 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	Where 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	<p>In relation to the EIS, the approach has been to make explicit and transparent the potential impacts of the Project through the manner in which the assessment has been undertaken which includes the following:</p> <ul style="list-style-type: none"> • All investigations have addressed the Project Terms of Reference. • Ecological surveys have been undertaken in accordance with relevant DoE and other best practice guidance. • For other issues considered in the EIS, such as acid sulphate soils, surface water quality and hydrology, groundwater, where it exists, relevant State or Federal guidance has been applied. • The description of technical limitations and assumptions has been made explicit and any areas where full scientific certainty is lacking identified and made transparent for decision makers and the community. • The approach to impact assessment adopted (Chapter A9) is transparent and provides an understanding of whether residual impacts (following mitigation) are considered serious or irreversible. • Mitigation identified for each MNES and state regulated ecological matters seeks to, where possible, provide a net gain in biodiversity and other outcomes in their implementation.

EPBC Act ESD
Principles Relevant to
the Project

Ref.

Consideration of how the Project Addresses the Principles and Objectives

Key areas where scientific uncertainty was addressed in the development of the EIS assessments include:

- Ground Parrot** – knowing that there was limited data on Ground Parrot in the Wallum Heath Management Area (WHMA) located adjacent RWY 18/36, survey work was commenced in advance of the main EIS investigations. Thirteen targeted Ground Parrot surveys (non-sequential, all months, starting in September 2010 and continuing to September 2012) were undertaken to provide greater knowledge of the species and their use of the WHMA. This is reflected in the baseline information provided in Chapter B8 – Terrestrial Fauna.
- Translocation of impacted *A. emuina*** – Evidence early in the process identified that propagation of *A. emuina* on the Sunshine Coast by other proponents had not been successful. To avoid a similar circumstance, the Project team embarked on a process of identifying a suitable offset site for translocation close to the impacted area. A series of ground investigations were undertaken at the offset site with the intent of providing greater certainty of the success of translocation. These investigations included soils, groundwater and hydrology. This is covered in more detail in Chapter B7 – Terrestrial Flora.
- Saline tailwater intrusion into groundwater** – the hydraulic delivery of sand requires seawater to be mixed with the sand (see Chapter A5). Knowing that much of the ecology surrounding the airport relies on more naturally acidic conditions, this posed questions regarding the potential impacts of this construction activity. Through the assessment and design process it was clear that there was scientific uncertainty as to how the groundwater would be impacted by the import of saline tailwater to site. To address this, groundwater modelling was undertaken and additional mitigation was added into the Project in the form of a high quality liner to underlie the sand platform and reduce direct infiltration to the sub-surface aquifer. Also, a cut-off-wall north of the northern perimeter drain to prevent groundwater flow in this direction and also prevent drawdown of the perched aquifer from vegetated areas to the north into the drain was included. The modelling and use of the liner and cut off wall has been addressed in Chapter A5 – Project Construction; B3 – Geology, Soils and Groundwater. The potential impacts of the activity have also been addressed in Chapter B7 – Terrestrial Flora and B8 – Terrestrial Fauna.
- Cumulative impact of marine sand from Moreton Bay** – To address any scientific uncertainty surrounding the extraction of 1.1Mm³ of sand from the Spitfire Realignment Channel in Moreton Bay, the Terms of Reference required that SCC undertake a cumulative sand assessment which assesses the potential implications of the additional extraction over and above that allowed as part of the Moreton Bay Sand Extraction Study, 2000 - 2004. The results of this assessment identified that the additional allocation of sand associated with the Project is not determined to present any unacceptable cumulative impacts.

<p>3. 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;</p>	<p>To enhance individual and community wellbeing and welfare by following a path of economic development that safeguards the welfare of future generations; and To provide for equity within and between generations</p>	<p>With respect to the MNES assessed as having residual impacts from the Project, they are <i>A. emuina</i> and Wallum Sedgefrog. The Project was assessed to have no significant impacts on MNES including Water Mouse, Grey Headed Flying Fox or Migratory Birds. In terms of the productivity of the environment being maintained or enhanced for the benefit of future generations, the following is proposed:</p> <ul style="list-style-type: none"> • The impacted area of <i>A. emuina</i> (550 plants within 4.41 ha or 5 per cent of the local population) is proposed to be translocated to a site on airport owned land 1200 m to the north and adjacent to the northern portion of the Mt Coolool National Park. The offset has been conservatively assessed and even so, it is anticipated that once established a target density of 322 plants/ha over 10 years (1420 plants) would result. There is also a small number of <i>A. emuina</i> plants located in the adjacent National Park; the act of translocation to this location may encourage further propagation of plants into this protected area. The translocation site is also planned to be protected in perpetuity for the benefit of future generations (Chapter B7 & E2). • A small area of WSF breeding habitat (1.67 ha) located in the southern portion of the WHMA would be impacted by the Project. In order to maintain the population, an offset involving augmentation of dry heath to create 2.22 ha of low-lying wet heath outside existing Ground Parrot habitats is proposed in the northern portion of the WHMA. This has benefits in terms of maintaining Wallum sedgefrog in the same general location and also in regard to the fact that the WHMA is proposed to have a Conservation Agreement over it (under the EPBC Act) which will maintain the management regime and maintain the ecological values in perpetuity (Chapter B8 & E2).
<p>Potential flood impacts were considered as part of the EIS. While current-day impacts have been addressed through the design and mitigation, potential long term impacts, particularly in Maroola would need to be addressed through a regional climate change strategy prepared by local, state and Commonwealth governments and taking account of the Project.</p>	<p>With respect to the loss on site of State listed ecological matters, particularly remnant vegetation (i.e. paperbark forest/wetland and sedgeland) and acid frogs (Wallum Rocketfrog and Wallum Froglet), land has been identified at Palmview adjacent the Mooloolah National Park for rehabilitation to compensate for the loss of these values. This site would be conserved in perpetuity with a conservation tenure proposed over the site.</p>	<p>With respect to enhancing individual and community wellbeing and welfare by following a path of economic development that safeguards the welfare of future generations, the Project:</p>
<ul style="list-style-type: none"> • Has been re-designed (through a 310 m shift to the south-east) through the EIS process resulting in a reduced Project cost and positive benefit cost ratio. • Airspace for the new runway has been designed to minimise impacts on overflights on residential areas. • Provides a noise benefit community wide (compared to the Do Minimum widening option on RWY 18/36). In 2020 it has been estimated that 3,531 fewer dwellings would be affected by the new runway compared to the Do Minimum and in 2040 5,312 fewer dwellings would be affected by the new runway compared to the Do Minimum. 	<p>ENVIRONMENTAL IMPACT STATEMENT</p>	<p>A8-219</p>

Ref.	EPBC Act ESD Principles Relevant to the Project	NSESD Core Objectives & Guiding Principles Relevant to the Project
		<p>Consideration of how the Project Addresses the Principles and Objectives</p> <ul style="list-style-type: none"> • Has projected regional economic benefits as follows: <ul style="list-style-type: none"> – \$4.1B to the regional economy between 2020 and 2040 – 2231 new jobs 2040 – Supports the growth of the northern part of the SEQ region – Improves export potential for local businesses and producers – Provides direct access for business, domestic and tourist travel to all Australian airports; and – Provides access to SE Asia and the rest of the world.
4.	<p>The conservation of biological diversity and ecological integrity should be a fundamental consideration in decisionmaking</p>	<p>To protect biological diversity and maintain essential ecological processes and life-support systems.</p> <p>For context, of the 460 ha Airport site, the following will be cleared of which:</p> <ul style="list-style-type: none"> • 56.01 ha is remnant vegetation (mostly least concern) • 3.17 ha is regrowth vegetation. • 144.8 ha is non-remnant vegetation (i.e. former caneland etc.). <p>The conservation of biological diversity and ecological integrity has been a fundamental consideration in decision—making throughout the EIS process noting:</p> <ul style="list-style-type: none"> • The site is bounded to the north and south by the Mt Cooloom National Park. From the outset a key driver in the Project design was to avoid direct impacts on the National Park. • Noting that there would be impacts on some Commonwealth and State listed ecological matters, appropriate mitigation in the form of compensatory and direct and indirect offsets were considered early in the planning process (i.e. the Preliminary Design, Initial Advice Statement and Referral stages of the Project). The EIS has then provided more detail with regard to the ecological characteristics of the site and commensurate with this has enabled more detail regarding mitigation to be proposed. • Sites both on and off airport have been identified for the purposes of offset and compensatory habitat. These sites are owned by SCC increasing the certainty of their use. • Conservation tenure through either State or the Commonwealth legislation (in the case of the WHMA) is proposed at each area identified for compensatory habitat rehabilitation and or offset. This means that these areas will be provided in perpetuity for future generations. • Due to the loss of vegetation as a result of the Project, severance of currently connected ecological communities would result. Mitigation in the form of a rehabilitated corridor on the eastern side of the Motorway on Airport land connecting the northern and southern sections of the Mt Cooloom National Park is proposed. Given proximity of this proposed corridor to the runway, there will be some limitations on the vegetation within the corridor in terms of maintaining its height at a sufficient level that would not compromise the safe operation of aircraft.

5.

Decisions and actions should provide for broad community involvement on issues which affect them.

The proposal to construct a new NW-SE aligned runway at SCA has been in the public domain since 1983. It has been a feature of a number of the Airport Master Plans publicly exhibited by SCC, the most recent in 2006. It was the adoption by SCC of that Master Plan in 2007 that led to the preparation of this EIS.

During the preparation of the EIS there has been considerable activity to inform the community and key stakeholders of the Project. Chapter A7 provides more detail.

The EIS will be publicly notified involving, meetings, presentations and public displays where SCA representatives and the technical EIS team will be available to explain the Project. To enable the community to understand what is a complex set of issues a variety of communication tools that clearly summarise the Project, its impacts, benefits and proposed mitigation, offsets and commitments. These are:

- Summary of Major Findings Booklet
- Aircraft Noise Information Booklet
- Online Flightpath Tool
- Fly-Through Video

Community feedback will be received during the Public Notification period and considered in terms of any required amendments to the Project.